



Annual Report

2019-2020

UNIVERSITY OF THE PUNJAB, LAHORE-PAKISTAN



Annual Report

2019-2020

UNIVERSITY OF THE PUNJAB, LAHORE-PAKISTAN



ANNUAL REPORT COMMITTEE

1.	Prof. Dr. Muhammad Saleem Mazhar Pro Vice Chancellor, Dean, Faculty of Oriental Learning	(Convener)
2.	Dean, Faculty of Arts & Humanities	Member
3.	Dean, Faculty of Behavioral & Social Sciences	Member
4.	Dean, Faculty of Commerce	Member
5.	Dean, Faculty of Economics & Management Sciences	Member
6.	Dean, Faculty of Education	Member
7.	Dean, Faculty of Islamic Studies	Member
8.	Dean, Faculty of Law	Member
9.	Dean, Faculty of Life Sciences	Member
10.	Dean, Faculty of Oriental Learning	Member
11.	Dean, Faculty of Pharmacy	Member
12.	Dean, Faculty of Sciences	Member
13.	Focal Persons Nominated by HoDs for Annual Report	Member
14.	Director Quality Enhancement Cell	Member
15.	Registrar or his Nominee	Member
16.	Deputy Registrar (Academics)	Secretary



University of the Punjab was formally established with the convening of the first meeting of its Senate on October 14th, 1882 at Simla. It was the fourth University to be established by the British Colonial Authorities in the Indian Subcontinent. The first three Universities were established by the British at their stronghold of Bombay, Madras and Calcutta. University of the Punjab, came into existence as a result of a long drawn struggle of the people of the Punjab after the War of Independence in 1857. Contrary to three previously established universities, which were only examining bodies, University of the Punjab has been both a teaching as well as an examining body right from the beginning.

Growth of the University has continued during recent decades. Allama Iqbal Campus (Old Campus) could not meet the growing needs of the university, the construction of Quaid e Azam Campus (New Campus) was started in 1958. Since then, academic, administrative, residential blocks and other facilities have been added to the Quaid e Azam Campus which is now the nucleus of University activities.

At present University of the Punjab comprises Four Campus across Punjab and One Campus in KPK (Total Five) which are briefly introduced below:-

1. Allama Iqbal campus with a more traditional architectural design, named after the great South Asian philosopher and mystic poet, is situated in the middle of the bustling city of Lahore. It covers an area of 50.37 Acres. The historical senate hall, the syndicate room and the main hall are located in Allama Iqbal campus. The college of Art & Design, college of pharmacy, Punjab University College of Information Technology and Oriental College are also located at Allama Iqbal Campus.
2. Quaid e Azam Campus, named after the father of nation, is situated in 12 kilometers to the south of Allama Iqbal Campus. Encapsulating an area of 1781 Acres of lush green landscape, this campus is the center of academic and administrative activities of the university. It accommodates numerous academic blocks, an administrative block, a central library, students' hostels, staff residences, a medical complex, day care centre, sports fields, a swimming pool, a boat club and other facilities. A canal running through this campus adds beauty to the surroundings. Various academic blocks are situated towards north side of the canal, whereas, the students' residences blocks lies to its south.
3. Gujranwala Campus, covering an area of 10.13 Acres, was established in 2006. Education in business administration, Commerce, Law and Information Technology is being imparted in this campus.
4. Jhelum Campus, covering an area of 32.37 Acres, was established in 2011. Education in business administration, commerce, Law and Information Technology is being imparted in this campus.
5. Khanspur Campus, spreading over an area of 2.47 Acres, is situated at a height of about 7000 feet in the Himalayan range of mountains. It is providing research facilities in some disciplines and is also used as a recreational center both for the faculty and the students.

MESSAGE

Prof. Dr. Niaz Ahmad Akhtar (Sitara-i-Imtiaz)
Vice Chancellor - University of the Punjab, Lahore - Pakistan



At University of the Punjab, Year 2019-20 was a year of faculty development, research breakthroughs, online admission, online teaching, and online examination. All these milestones have been abridged in this Annual Report.

During 2019-20, this university enrolled 45,910 regular students in about 350 academic programs, amongst these, 2130 students were enrolled in PhD degree programs being offered in multiple disciplines. During this year, the university enrolled 185,950 students through its 635 affiliated colleges. There are about 975 regular faculty members with 599 Ph.D. degree holders. As far as promotion of research is concerned, its funding has been increased upto Rs. 380 million in 2020. A Research Endowment Fund (created with Rs. 250 million in 2010) currently stands at Rs. 601 millions. As far as faculty development is concerned, an amount of 30 millions has been allocated for faculty development program. Further, an endowment fund of 40 millions has also been set up for welfare of the employees. To alleviate financial hardship of students, need and merit based scholarships are provided. During this year, more than 25% of regular students were provided scholarships.

It was a difficult time for the university as the COVID-19 pandemic started to spread in March 2020, the country went on a lock down, and educational institutions were immediately closed. During this hard situation the PU took a lead and decided to continue its work through online mode. Significant measures the PU took to ease the lives of students, faculty and staff include developing the Multiplex Real Time PCR Testing Kits for specific diagnosis of Coronavirus, establishing a testing lab with a capacity of 200 patients per day, establishing a mental health helpline, establishing a telemedicine helpline, establishing a quarantine center with a capacity of more than 200 patients, establishing an online kitchen gardening helpline, manufacturing and free distribution of sanitizer according to the formula devised by WHO, offering online classes and examinations, offering online free courses for the general public, conducting online competitions of sports, qirat, naat, essay writing, painting, designing, calligraphy, etc., and granting fee waiver to the students.

During the Academic Year 2019-20 the Punjab University has been successful in raising its ranking among the global universities. In the QS World University Rankings the Punjab University got a position in the top 68 percent universities as compared to its position in the top 75 percent universities in the previous year. In the QS Regional University Rankings for Asia the Punjab University was at rank 178 as compared to 195 in the previous year. During 2019-20 the Punjab University has been ranked in five subjects in the QS Subject Rankings.

UNIVERSITY GOVERNANCE



Chief Executives

Chancellor	Chaudhry Muhammad Sarwar
Pro Chancellor	Raja Yasir Humayun Sarfraz
Vice Chancellor	Prof. Dr. Niaz Ahmad Akhtar
Pro Vice Chancellor	Prof. Dr. Muhammad Saleem Mazhar
Registrar	Dr. Muhammad Khalid Khan

Deans of Faculties

1	Faculty of Arts & Humanities	Prof. Dr. Amra Raza
2	Faculty of Behavioral & Social Sciences	Prof. Dr. Umbreen Javed
3	Faculty of Economics & Management Sciences	Prof. Dr. Khalid Mahmood
4	Faculty of Islamic Studies	Prof. Dr. Muhammad Hammad Lakhvi
5	Faculty of Engineering & Technology	Vacant
6	Faculty of Pharmacy	Prof. Dr. Nadeem Irfan Bukhari
7	Faculty of Education	Prof. Dr. Abid Hussain Ch.
8	Faculty of Oriental Learning	Prof. Dr. Khalid Dad Malik
9	Faculty of Commerce	Prof. Dr. Mubbsher Munawar Khan
10	Faculty of Law	Vacant
11	Faculty of Science	Prof. Dr. Muhammad Sharif
12	Faculty of Life Sciences	Prof. Dr. Firdous-e-Bareen
13	Faculty of Health Sciences	Vacant



ALFRED
WOOLNER
1878-1936

CONTENTS

Description

Chapter 1: Academic Activities	1
Chapter 2: Research and Development	79
Chapter 3: Quality Assurance	397
Chapter 4: Faculty Development	419
Chapter 5: Access	433
Chapter 6: University Building Economies	481
Chapter 7: Strengthening Physical Infrastructure	513
Chapter 8: Strengthening Technological Infrastructure	529
Chapter 9: University Building Communities	543
Chapter 10: Sports	557
Chapter 11: University Building Leadership	563
Chapter 12: Finance	573
Chapter 13: University Governance	577
Chapter 14: Office of Resource Generation/Development	585
Chapter 15: Health Centre & Medical Facilities	587
Chapter 16: Facilities of the University and Improvements	591
Glimpses of the University of the Punjab	629

1

ACADEMIC ACTIVITIES

Chapter

- Undergraduate and Postgraduate Programmes
- MS and PhD Programmes
- Academic Achievements
- Foreign Academic Linkages
- Honours and Awards



**CHAPTER****1****Academic Activities****Faculty of Arts & Humanities****CENTRE FOR SOUTH ASIAN STUDIES**

Telephone (s): +92-42-99231143

Fax Number (s): +92-42-99232039

E-mail Address (s): director.csas@pu.edu.pk

- **MS and PhD Programmes**
M.Phil. Morning & Ph.D.
- **Academic Achievements**
 - M.Phil. 19 (Morning), & Ph.D. 03
 - Pass Out: 29 M.Phil and 04 Ph.D
- **Institutional Linkages: 4**

COLLEGE OF ART & DESIGN

Telephone (s): +92-42-99212834, 42-99212729

Fax Number (s): +92-42-99212779

E-mail Address (s): principal.cad@pu.edu.pk

- **Undergraduate and Postgraduate Programmes**
 - MFA (Fine Arts, Graphic Design, Textile Design)
 - M. Arch.
 - MA (Fine Arts)
 - BFA (Fine Arts, Graphic Design, Textile Design)
 - B Arch
- **M. Phil. and Ph.D. Programs**
 - M. Phil. (Studio Practice and Art History)
 - Ph.D. (Studio Practice and Art History)
- **Diplomas**
 - 1 Year Professional Diploma (Painting, Graphic Design, Textile Design, Drawing)
 - 1 Year Postgraduate Diploma in Interior Design
- **Academic Achievements**
 - The Research Centre of the University College of Art & Design was established in 2002. The Centre was designed to produce creative and intellectual manpower in the field of Art & Design. Five highly qualified and experienced faculty members are serving in the



Centre. Prof. Dr. Shahida Manzoor from Ohio University, USA; Prof. Dr. Shaukat Mahmood, from University of Edinburgh, UK; Prof Dr. Naseem Akhtar Said Dr. Sumera Jawad, Dr. Samina Zaheer and Dr. Rafya Tahir from Punjab University, Lahore.

- Ms Irum Zia Raja earned the Ph.D. Degree in (Art History). Her thesis was completed under the supervision of Prof. Dr. Shahida Manzoor. The topic of her thesis was “From Craft to Art and Design: Changing Patterns of Art Education (Art Education: From the Mayo School of Art to the National College of Arts)”.
- Ms. Zernain Imtiaz Kaifi a M.Phil (Art History) candidate was declared successful. Her thesis was completed under the supervision of Prof. Dr. Shaukat Mahmood. The topic of her thesis was “A Comparative Study on the Nawankot Gateway, Lahore.”
- Ms. Ramsha Khalid, an M.Phil (Art History) candidate was declared successful. Her thesis was completed under the supervision of Prof. Dr. Shaukat Mahmood. The topic of her thesis was “An Analytical Study of Decorative Motifs of Shahi Mosque, Chiniot.”
- Ms. Sana Naeem, an M.Phil (Art History) candidate was declared successful. Her thesis was completed under the supervision of Dr. Samina Zia Sheikh. The topic of her thesis was “Award Winning Painters of Punjab University.”
- Ms. Rehana Shareef, an M.Phil (Studio Practice) candidate was declared successful. Her thesis was completed under the supervision of Dr. Samina Zaheer. The topic of her thesis was “The Significance of Lotus Imagery in Pakistani Art,”
- Ms. Safia Zafar, an M.Phil (Studio Practice) candidate was declared successful. Her thesis was completed under the supervision of Prof. Dr. Sumera Jawad. The topic of her thesis was “Engraving and Graffiti as Mementos.”
- Mr. Mohsin Latif, an M.Phil (Studio Practice) candidate was declared successful. His thesis was completed under the supervision of Prof. Dr. Sumera Jawad. The topic of his thesis was “Beauty in the Art of Landscape from Third Dimension.”
- Mr. Abdul Rehman Arif Sheikh, an M.Phil. (Art History) candidate was declared successful. His thesis was completed under the supervision of Prof. Dr. Shahida Manzoor. The topic of his thesis was “Traditional Craft of Multan Its variation of Hand Embroidery Techniques.”
- Ms. Sarima Wasim, an M.Phil. (Art History) candidate was declared successful. Her thesis was completed under the supervision of Dr. Rafya Tahir. The topic of her thesis was “An Analytical & Comprehensive Study of the Architecture of Central Library Bahawalpur.”
- Mr. Muhammad Rehman Alam, an M.Phil (Studio Practice) candidate was declared successful. His thesis was completed under the supervision of Prof. Dr. Sumera Jawad. The topic of his thesis was “Bipolar Disorder: A Visual Representation.”
- Ms. Atika Farid, an M.Phil (Art History) candidate was declared successful. Her thesis was completed under the supervision of Prof. Dr. Shaukat Mahmood. The topic of her thesis was “History and Colonial Architecture of Punjab Civil Secretariat, Lahore.”



- Ms. Noreen Arshad, an M.Phil (Art History) candidate was declared successful. Her thesis was completed under the supervision of Dr. Samina Zia Sheikh. The topic of her thesis was “Endangered Shahi Hammam of Shalamar Bagh: Architecture and Distribution of Functional Spaces”.
- Ms. Maliha Shafiq, an M.Phil (Art History) candidate was declared successful. Her thesis was completed under the supervision of Prof. Dr. Shaukat Mahmood. The topic of her thesis was “Dyal Singh Library, Lahore: History and Architecture.”
- Ms. Ayesha Arshad, an M.Phil (Art History) candidate was declared successful. Her thesis was completed under the supervision of Prof. Dr. Shaukat Mahmood. The topic of her thesis was “Architectural Achievements of Sir Ganga Ram in Lahore.”
- Ms. Tania Mairaj Muhammad Khan, an M.Phil (Art History) candidate was declared successful. Her thesis was completed under the supervision of Prof. Dr. Shaukat Mahmood. The topic of her thesis was “Study of Gurudwara at Hasan Abadl, Architectural Commonalities between Hindu Temple, Mosque and Gurudwara.”
- Ms. Raheela Mushtaq, an M.Phil (Art History) candidate was declared successful. Her thesis was completed under the supervision of Prof. Dr. Shaukat Mahmood. The topic of her thesis was “Architectural Features and Decorative Elements of Mohan Singh Haveli Rawalpindi.”
- Ms. Shamaila Iqbal, an M.Phil (Art History) candidate was declared successful. Her thesis was completed under the supervision of Prof. Dr. Shaukat Mahmood. The topic of her thesis was “Transformation of Billboard in Lahore.”
- Ms. Sidrah Sohail, an M.Phil (Studio Practice) candidate was declared successful. Her thesis was completed under the supervision of Prof. Dr. Sumera Jawad. The topic of her thesis was “A Penny for your Thoughts.”
- Ms. Aysha Zahid, an M.Phil (Studio Practice) candidate was declared successful. Her thesis was completed under the supervision of Prof. Dr. Sumera Jawad. The topic of her thesis was “Self-Portraits vs Selfies.”
- Ms. Maliha Iram, an M.Phil (Studio Practice) candidate was declared successful. Her thesis was completed under the supervision of Dr. Samina Zaheer. The topic of her thesis was “Contemporary News Media and Its Impact on Visual Art.”
- Ms. Farah Ahmad, an M.Phil (Studio Practice) candidate was declared successful. Her thesis was completed under the supervision of Prof. Dr. Sumera Jawad. The topic of her thesis was “The Human Dimension of a Prostitute's Life. “
- Ms. Sumbal Azeem, an M.Phil (Art History) candidate was declared successful. Her thesis was completed under the supervision of Dr. Rafya Tahir. The topic of her thesis was “Depiction of Wildlife in Mughal Miniature Painting (1556-1627).”
- Mr. Ahsan Khalil, an M.Phil (Art History) candidate was declared successful. His thesis was completed under the supervision of Muhammad Zeeshan Ashraf. The topic of his thesis was “Mughal Gardens: The Philosophy of Landscape Architecture”.



- Ms. Nosheen Naz, an M.Phil (Art History) candidate was declared successful. Her thesis was completed under the supervision of Prof. Dr. Ahmad Bilal. The topic of her thesis was “Art of Story Telling: Dastan Gui in TV Drama Serials of Pakistan.”
- Ms. Iqra Pervaiz, an M.Phil (Studio Practice) candidate was declared successful. Her thesis was completed under the supervision of Prof. Dr. Sumera Jawad. The topic of her thesis was “Transformation in Miniature Painting.”
- Ms. Shamaila Batool Fatima, an M.Phil (Studio Practice) candidate was declared successful. Her thesis was completed under the supervision of Prof. Dr. Shahida Manzoor. The topic of her thesis was “UCAD's Leadership Since 1940 to date.”
- Ms. Naila Bashir, an M.Phil (Studio Practice) candidate was declared successful. Her thesis was completed under the supervision of Prof. Dr. Sumera Jawad. The topic of her thesis was “Symbolic Charactrs of Vultures and Correlating with Human Nature.”
- Ms. Samara Shahid, an M.Phil (Studio Practice) candidate was declared successful. Her thesis was completed under the supervision of Prof. Dr. Sumera Jawad. The topic of her thesis was “Calligraphy Behind Its Traditional Perception.”
- Ms. Hibba tul Mujeeb, an M.Phil (Art History) candidate was declared successful. Her thesis was completed under the supervision of Prof. Dr. Shaukat Mahmood. The topic of her thesis was “Foundation Stones and Commemorative Plaques of Clonial Period in Lahore.”
- Ms. Amina Gul, an M.Phil (Studio Practice) candidate was declared successful. Her thesis was completed under the supervision of Prof. Dr. Sumera Jawad. The topic of her thesis was “Application and Variations of Kintsugi.”
- Ms. Anam Tariq, an M.Phil (Studio Practice) candidate was declared successful. Her thesis was completed under the supervision of Dr. Samina Zaheer. The topic of her thesis was “Transgender in Pakistan: A Lost Identity.”
- Ms. Saadia Altaf Khan, an M.Phil (Studio Practice) candidate was declared successful. Her thesis was completed under the supervision of Prof. Dr. Sumera Jawad. The topic of her thesis was “Women Vulnerability.”
- Mr. Meer Mehmood Khan, an M.Phil (Studio Practice) candidate was declared successful. His thesis was completed under the supervision of Dr. Samina Zaheer. The topic of his thesis was “Narrative through Art.”
- Ms. Sana Iqbal, an M.Phil (Studio Practice) candidate was declared successful. Her thesis was completed under the supervision of Prof. Dr. Sumera Jawad. The topic of her thesis was “Filling the Negative Space Around: A Woman's Perspective.”
- Ms. Farial Junaid, an M.Phil (Studio Practice) candidate was declared successful. Her thesis was completed under the supervision of Dr. Samina Zaheer. The topic of her thesis was “Visual Culture of Pakistan: A Case Study with Focus on Popular Imagery and Text.”
- Ms. Anum Malik, an M.Phil (Art History) candidate was declared successful. Her thesis was completed under the supervision of Prof. Dr. Ahmad Bilal. The topic of her thesis was “Self Realization through Concept of Khudi by Allama Iqbal.”



- Ms. Hina Malik, an M.Phil (Studio Practice) candidate was declared successful. Her thesis was completed under the supervision of Prof. Dr. Sumera Jawad. The topic of her thesis was “Transformation of the Female Identity in South Asian Culture: The Sensual and Spiritual.”
- Ms. Banin Nazir, an M.Phil (Studio Practice) candidate was declared successful. Her thesis was completed under the supervision of Prof. Dr. Sumera Jawad. The topic of her thesis was “Visual Interpretation of Trashidam, Parastidam, Shikhastam.”
- Ms. Kiran Shehzadi, an M.Phil (Studio Practice) candidate was declared successful. Her thesis was completed under the supervision of Dr. Samina Zaheer. The topic of her thesis was “Journey at Inner Quest.”
- Ms. Alina Ansari, an M.Phil (Art History) candidate was declared successful. Her thesis was completed under the supervision of Prof. Dr. Shaukat Mahmood. The topic of her thesis was “Origin and Development of Hamagul in Multan.”
- 15 M.Phil students are enrolled for the session 2019-21 in the Research Centre, UCAD. All the students are actively engaged in their course work.
- 9 M.Phil (Self Supporting) students are enrolled for the session 2019-21 in the Research Centre, UCAD. All the students are actively engaged in their course work.
- Approval of the panel of examiners for evaluation a PhD thesis, Session 2012-2017.
- Approval of M.Phil six months extension in submission of research thesis for the session 2017-2019.
- Approval of the applications submitted by PhD students, session 2017-2022 to re-appear in the two papers of Semester II.
- Approval of the synopsis and thesis topic of a PhD candidate session 2015-2020.
- Approval of the synopsis and thesis topic of a PhD candidate session 2016-2021.
- Approval of extension to an M.Phil candidate session 2016-2018.
- Approval of extension to two M.Phil candidates session 2017-2022.
- Department of Textile Design secured second position in DICE 2020 competition at Karachi.
- Department of Architecture won many awards in curricular & co-curricular competitions including
 - Mehdi Ali Mirza Award
 - Kauser Bashir Award
 - National & International awards in sports

DEPARTMENT OF ARCHAEOLOGY

Telephone (s): +92-42-99230322

E-mail Address (s): chairman.arch@pu.edu.pk

- **Undergraduate and Postgraduate Programmes**
M.A. Archaeology (2-years programme)
- **MS and PhD Programmes**
M. Phil Programme (2-years programme)



○ **Academic Achievements**

12 students have passed examination of M.A. Archaeology (Session 2018-20)

20 students have passed 2 Semesters of M.A. Archaeology (Session 2019-21)

7 students have completed their Research work of M.Phil Archaeology Programme (2018-20)

○ **Foreign Academic Linkages**

MOU Between The old Schools of Trinity through the Department of Archaeology and The McDonald Institute for Archaeological Research, University of Cambridge and Department of Archaeology, University of the Punjab. Dated: 26th June 2020

○ **Institutional Linkages**

MOU Between Walled City of Lahore (WCLA) and Department of Archaeology, University of the Punjab. Dated: 16th September 2020.

DEPARTMENT OF ENGLISH LANGUAGE & LITERATURE

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Fax Number (s): +92-42-99231169

E-mail Address (s): chairperson.english@pu.edu.pk

○ **Undergraduate and Postgraduate Programmes**

- Master of Art in English (Morning & Replica)
- BS in English (Morning)
- Postgraduate Diploma in English Language Teaching (PGD-ELT)
- Diploma in Linguistics
- Spoken English Certificate

○ **MS and PhD Programmes**

- Ph. D in English
- Master of Philosophy in English

○ **Foreign Academic Linkages**

St. Andrews University, Scotland

○ **Institutional Linkages**

St. Andrews University, Scotland

○ **Academic Achievement**

- **A list of BS Morning Session (2016-2020) Research Papers (Linguistics) Completed.**

Sr. No.	Roll No.	Student Name	Thesis Topic
1	1	AAKIFA HUSSAIN	Exploring TikTok Usage: Tracing Patriarchal Linguistic Patterns through Speech Acts.
2	6	AREESA ASLAM	Female Beauty Product Advertisements in Pakistani Blogs: A Critical Discourse Analysis



3	9	HAFIZ TANVEER GHORE	Exploring Racial and Gender Discrimination in Written Jokes in Lodhran District Pakistan.
4	10	HAFIZA ALEENA KHALIL	Pakistani Female Identity Construction and Projection in Family Advertisements: Critical Discourse Analysis
5	13	IQRA AZHAR	Critical Discourse Analysis of black magic advertisements published in Pakistani print media
6	16	LUBNA BUNYAD	A critical discourse analysis of Gender Stereotyping in Sexist Jokes in Pakistani print Media
7	20	MUHAMMAD AAMIR	Critical Discourse Analysis of Sign Boards in Lahore depicting Male Female Models
8	23	MUHAMMAD RASHID	Reading habits and attitude of English language learners at university level Effecting their Target Language Performance
9	24	MUHAMMAD USMAN	A Pragmatic Comaparative Study of Headline representing Pakistan by BBC and CNN
10	25	NALEIN ABBAS	Semiotic analysis: Portrayal of Women on instagram posts.
11	27	QAISAR ABAS	Exploring Women Representation In Meme Discourse: A Multimodal Critical Discourse Analysis Of Selected Memes from Pakistani Facebook Pages
12	29	RAYYAN ABDUL KHALIQ	Linguistic Significance of Borrowed Vocabulary in Indigenizatin of Language: a Stylistic Analysis of Meatless Days by Sara Suleri
13	36	SYED DANISH MEHDI	Cataclysmic cognitive impacts of the corona outbreak: a psycholinguistic study of the vocabulary used to explain the pandemic. Covid-19
14	39	TAYYABA RAFIQ	Social Distancing: Linguistic evolution, interpretation and cross cultural perception
15	40	TEHREEM ZAFAR	A Comparative Critical Discourse Analysis of Selected Pakistani Television Advertisements
16	41	UME-LAILA	A Critical Discourse Analysis of Gender Representation in Selected English Books of Punjab Textbook Board
Repeater	20	Hassan Ali (2015-19)	A Comparative Analysis of Influence of Educational Institutes on First and Second Language Acquisition in Lahore

▪ A list of BS Morning Session (2016-2020) Research Papers (Literature) Completed.

Sr. No.	Roll No.	Student Name	Thesis Topic
1	2	AIMEN MUNIR	Unveiling Misogynistic Neurotic Patriarchal Vigilance in Ferrante's Troubling Love: A Psychoanalytic Feminist Approach
2	3	ALIHA AEJAZ	Interpreting the Scattered World: A Socio-political Study of Tanweer's The Scatter Here is Too Great.



3	5	ANEESA ALMAS	Living the Horrors of Monarchies; Biographies of Royal Women's Suffering
4	7	AYESHA ZAHID	Alienation in The Inheritance of Loss by Kiran Desai: A Marxist Approach
5	11	HINA AKRAM	The female lead in Disney Princesses; a Feministic Study of Princess Belle, Jasmine and Cinderella
6	12	IMAAAN WAHEED	Female Agency in 'the twentieth wife' by Indu Sundaresan
7	17	MANAHIL AIMEN	Analyzing the setting as third space in Exit West by Mohsin Hamid
8	18	MARYAM SHAFIQUE	Exploring Oedipus complex while cascading light on human nature and morality in Urban fantasy "Lucifer" (2016)
9	22	MUHAMMAD HASHIR SATTAR	Oppression and Resistance: Foucauldian discourse analysis of power dynamics in "The Golden Legend" by Nadeem Aslam
10	26	NAWEEL SHAH	Narratological Study of Koh-I-noor by Dalrymple
11	28	RAJA MUHAMMAD UMAR FAROOQ	Tropes of Images and Memory in Pamuk's Museum of Innocence
12	30	RIDA AKHTAR GHUMMAN	Flanerie, Urbanism and Sisterhood in Elena Ferrante's "My Brilliant Friend"
13	33	SADIA NASRULLAH	Discourse and Ideology: A Feminist Comparative Analysis of Literary Manifestos
14	34	SAMAVIA ZIA	Feminist Knowledge Production and Re-writing Histories in Margaret Atwood's "The Testaments"
15	35	SHEREEN SAHAR	Reimagining human-environment interactions: An Ecocritical Reading of Mohsin Hamid's Moth Smoke
16	38	TAYYABA AFZAL	Unveiling the Seen and Unseen: A Psychoanalytic Study of Magical Realism in Stephen King's The Outsider
17	42	USAMA ALI	Reclaiming Diverse Cultural Identity and Spaces: A Post Colonial Study of Osama Siddique's Sniffing out the moon
18	43	ZAINAB ASHFAQ	Ethos of Meditation: A Post colonial Study of Nikolai Geronzi's Turtle Feet

▪ **A list of M.A Morning Session (2017-2019) Research Papers Completed.**

Roll no.	Name of the student	Title of research
1	FATIMA IBRAHIM BAJWA	Therapeutic Effect of Nature on Disintegrated Human Psyche: Eco-Psychology in Burnett's <i>The Secret Garden</i> (1911)
2	NIMRA AJMAL	Anthropocentrism in Relation to Biocentrism in Children's Literature: Micheal Bond's <i>The Tale of Olga da Polga</i> (1971)



3	MQUDAS NAZ	Eco-centric Approach in the Essential Collection of Short Stories For Young Readers (2015) of Ruskin Bond.
4	SAJAD KHAN	Eco-Criticism and the Politics of Representation in Rabbit Rap (2012) by Musharaf Ali Farooqi.
5	WARDAH ZAINAB	Eco-Gothic Criticism in Tolkien's <i>The Lord of the Rings</i> (1958)
6	SANA KHALID	Hyperculturalization after 9/11 in The Reluctant Fundamentalist
7	ABDUL GHANI	The Aggression for Survival and Misuse of Islamic Ideology in Khalid Hossaini's <i>The Kite Runner</i>
8	AQSA JAVAID	Finding Oneself: A Study of Identity Development in Mohsin Hamid's <i>Moth Smoke</i>
9	UMAIRA ASHIQ	Violence and Communal Riots in the Background of India's Partition in Bapsi Sidhwa's <i>Ice Candy Man</i>
10	MARIA QUBTIA	Sohanna Brenner's Socialist Feminism in Shobhan Bantwal's <i>The Dowry Bride</i>
11	FATIMA TARIK	Abraham Maslow's Theory of Self-acknowledgement in Nadeem Aslam's <i>The Golden Legend</i>
12	AMTAL BATTOOL	Giorgio Agamben's idea of 'Camp' in Mohsin Hamid's <i>Exit West</i>
13	RIDA ZIA	The Working of Freud's Unconscious In Alice Munro's <i>Runaway</i>
14	NIMRA KHALID	Erik Erikson's Theory of Identity in Elif Shafaq's <i>The Bastards of Istanbul</i>
15	HAFIZ BARRAR MUDASSIR	Interpersonal Psychoanalytic Study of <i>Tell Her Everything</i> by Mirza Waheed
16	MUQADDAS IJAZ	Socio-Psychoanalytical Study of American Dervish by Asad Akhtar
17	AHSAN GORAYA	Theory of Othering in Mohsin Hamid's <i>Exit West</i>
18	SABA	Eco-feminism in the Novel <i>Voices in the City</i>
19	AQSA SAJJAD	A New Historical Study of <i>The Book of Gold Leaves</i> by Mirza Waheed
20	NIDA SHAKEEL	A Psycho-analytical Study of <i>Red Birds</i> by Muhammad Hanif
21	TAYYABA ANWAR	The City as a Casual Creature in Mario Vargas Llosa's <i>The Neighbourhood</i>
22	Muhammad Ramzan	The Involvement of Tech Warfare in <i>Red Birds</i> by Muhammad Hanif
23	RIFFAT BATTOOL	Eco-Critical Study of Rizwan Akhtar's "Lahore, I am Coming" and Rupi Kaur's "The Sun & her Flowers"
24	MALIHA BUTT (OVERSES)	Ramification of Slavery in <i>Washington Black</i> by Esi Edugyan



25	AASMA KHAN (CU)	Socio-Pschoanalytical of the Minor Characters in Jim Coetzee's Disgrace
26	Azeem Ullah (FATA)	Unveiling the Mark and Motives of British Colonialists in Nigeria Through the Half of A Yellow Sun by Chimamanda Ngozi Adichie

▪ **A list of M.A Replica Session (2017-2019) Research Papers Completed**

Roll No.	Name of the student	Title of Research
1	MUHAMMAD KHAKAN IFTIKHAR	Postcolonial Study of <i>"Between Clay and Dust"</i> by Musharaf Ali Farooqi
2	SANA LIAQAT	A Feminist Study of Colson Whitehead's <i>"The Underground Railroad"</i>
3	MUHAMMAD NAUMAN	Female Identity in Monica Ali's <i>Brick Lane</i>
4	FAIQA AHMAD	Voice of the Marginalised Segment in Mildred D. Taylor's <i>"Roll of Thunder"</i>
5	NAVEEDA ALAM	Tropes of Infidelity in Alice Munro's <i>"The Love of a Good Woman"</i>
6	MUHAMMAD MOHSIN	Power Structures in Muhammad Hanif's <i>"Red Birds"</i>
7	KOMAL SHEHZADI	The Construction of Masculinity in Bilal Tanweer's <i>"The Scatter Here is Too Great"</i>
8	SANA ANJUM	An Existential Feminist Study of Muhammad Hanif's <i>"Our Lady of Alice Bhatti"</i>
9	MUBBARA SAEED	An Eco-critical Exploration of Mohsin Hamid's <i>"Exit West"</i>
10	MARVA ARIF	A Study of Identity and Cultural Hybridity in the Poetry of Rizwan Akhtar and Fatimah Asghar
11	SYED MUHAMMAD	The Female Gaze as a Narratological Tool in Monica Ali's <i>"Brick Lane"</i>
12	HAFIZA SADIA SHAUKAT	A Study of Female Friendships and Solidarity in S.M. Yusuf's <i>"Saheli"</i>
13	MINAHIL FATIMA	Poetic Psycho-geographies: Memory, Desire and the Urban in Rizwan Akhtar's <i>"Lahore, I am Coming"</i> and Rakhshan Rizwan's <i>"Paisley"</i>
14	RANA KALSOOM AMJAD	The Complexity of Identity in Arundhati Roy's <i>"The Ministry of Utmost Happiness"</i>
15	AFSHEEN ASLAM	Exploration of Mysticism in Mohammad Hanif's <i>"Red Birds"</i>
16	NOOR UL WARA	A Study of Power Dynamics in Nadeem Aslam's <i>"The Golden Legend"</i>
17	WAHEED TUFAIL	A Post-colonial Feminist Analysis of Mohsin Hamid's <i>"Exit West"</i>
18	KHUBAIB UL HASSAN	A Study of Poetic Justice in Khalid Hosseini's <i>"Kite Runner"</i>
19	ALTAF HUSSAIN	Politics of Identity in Kamila Shamsie's <i>"Home Fire"</i>



20	KINZA AHMED	Exploration of Childhood Reminiscences in Micheal Ondaatje's <i>"Warlight"</i>
21	SAMAN NASEER	Consequences of Exercising Free Will in <i>"The One Who Wrote Destiny"</i> by Nikesh Shukla
22	ANIQA QURAT UL AIN	Ordeal of Survival in <i>"A Raisin in the Sun"</i> by Lorraine Hansberry
23	SADIA HAMEED	Selfhood of Distorted Imagination in <i>"If Nobody Speaks of Remarkable Things"</i> by Jon McGregor
24	HAFIZ SHAHZAD AKRAM	Images of Dark Childhood in <i>"The Kite Runner"</i> by Khalid Hossein.
25	HAFIZ MODASSAR NASEER	Repercussions of the Spiritual Stage of Ego Death in Elif Shafaq's <i>"Forty Rules of Love"</i>
26	SHAH KHALID	Discursive Trajectories of Multicultural Identity in Kamila Shamsie's <i>"Home Fire"</i>
27	MUHAMMAD USMAN	<i>"Pygmalion"</i> by G.B. Shaw: A Maslowian Study
28	SABA ALI	<i>"The Hungry Tide"</i> by Amitav Ghosh: An Eco-critical Study
29	NIDA SHAHZAD	Socio-economic Fissures in <i>"The White Tiger"</i> by Arvind Adiga
30	SOMIA SAEED	Islamophobia in <i>"Disgraced"</i> by Ayad Akhtar
31	AMAN ALI SHER	Environmental Conservation in <i>"The Hungry Tide"</i> by Amitav Ghosh
32	MUBASHRA ASLAM	Self-Erosion in Toni Morrison's <i>"Beloved"</i>

▪ **A list of M.Phil. Theses completed during the academic year (2017-2019).**

1	Humayun Adil Hameed	Marxist Study of the Reified in Vijay Tendulkar's Select Plays
2	Ammara Saeed	Violence and Memory in Pakistani Fiction in English: A Critical Study of Sorayya Khan's Selected Works
3	Zobia Khushi Muhammad	Fictional Appropriation of Cultural Dilemmas Depicted in the Second Generation Indian-American Women Writers
4	Muhammad Karim Akhtar	Perils of Globalization in Jamaica Kincaid's Lucy: A Postcolonial Caribbean Perspective
5	Sahar Hamid	Predicament of Post-colonial Queer Bodies in Contemporary Fiction of Sub-continent
6	Aresha Saber	Politics of Transnationalism in Hamid's <i>Exit West</i> and Debbagh's <i>Out of It</i> .
7	Hannia Javaid	Spatiality, Sexual Politics and Agency of Women in <i>The Mirror of Beauty and Umrao Jan Ada</i>
8	Sulaim Sarfraz	Representation of Environmental Concerns in Climate Change Fiction: An Eco-critical Analysis of Barbara Kingsolver's <i>Flight Behavior</i> and Richard Power's <i>The Overstory</i>
9	Fizza Rehman	Uncanniness and the Politics of Nationalism: A Postcolonial Study of the <i>Famished Road</i>



10	Rida-E-Kaloom	The Politics of Violence in <i>The Party Worker</i> , <i>The Spinner's Tale</i> and <i>The Prisoner</i> by Omar Shahid Hamid
11	Sahar Tasawar Hashmi	Altering Trajectories of Resistance against Patriarchy by Diasporic Indian Women in Jhumpa Lahiri's Novels
12	Zunaira Farasat	Essentialist Narrative of Racial Passing in Philip Roth's <i>The Human Stain</i> and Ralph Ellison's <i>Juneteenth</i>
13	Faiqa Anum	Confronting Colorism Dismantling The Socially Constructed Image of Beauty in Toni Morrison's <i>The Bluest Eye</i> and <i>God Help the Child</i>
14	Alina Tahir	The Rhetoric of Modernity: A Critical Analysis of Female Narrative on Nigeria-Biafra Civil War
15	Laraib Sughra	A Comparative Study of Aging and Disability in Selected Works of Fiction

▪ **A list of Ph.D Theses completed during the academic year (2017-2019).**

Sr. No.	Student's Name	Title
1	Muhammad Furqan Tanvir	"Crime and the Rediscovery of Ambivalent Pasts: A Postmodernist Approach to Historical Thrillers"
2	Farida Chishti	"Diasporic Relocations of Home in the Fiction of Gao Xingjian"
3	Salma Khatoon	"Gothic Impulse in Edward Bond's Rational Theatre: A Mode of Political Critique"

DEPARTMENT OF HISTORY & PAKISTAN STUDIES

Telephone (s): +92-42-99231170, 99231138

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E-mail Address (s): chairman.history@pu.edu.pk

○ **Undergraduate and postgraduate Programs**

- B.S. History
- MA Pakistan Studies

○ **MS and PhD Programmes**

- M. Phil in History
- Ph. D. in History

○ **Academic Achievement**

- Students have passed their M.A. History (19 Students Session 2017-19) and (15 Students Session 2019-20)
- Students have passed their M.A. Pakistan Studies (28 Students Session 2017-19) and (22 Students Session 2019-20)
- Students have passed their M.Phil. in History (20 Evening, 12 Morning)
- Students have passed their Ph.D. in History (12 Students Session 2019-20)

○ **Foreign Academic Linkages**

M. Phil and Ph D. with Northeastern University of Qinhuangdao (NEUQ), China.

○ **Institutional Linkages**

- Northeastern University of Qinhuangdao (NEUQ), China



DEPARTMENT OF PHILOSOPHY

Telephone (s): +92-42-99230884

Fax Number (s): +92-42-99230298

E-mail Address (s): chairman.phil@pu.edu.pk

○ **Undergraduate and Postgraduate Programmes**

- BS (4-Years) Philosophy
- MA Philosophy

○ **Academic Achievements**

- In the academic session of 2019-20, the Department of Philosophy achieved several teaching and research milestones. In general, the Department published one research journal and organized seminars and talks on divergent topics.
- This year's the Iqbal memorial lecture was delivered by Professor Dr. Iqbal Afaqi, on the topic, *ہیگل کے فلسفہء تارخ سے نو تارخیت تک* Professor Dr. Niaz Ahmad Ahtar,
- Then, the Vice Chancellor, presided over the lecture while faculty members, students and many people from different factions of civil society attended the lecture.
- The Department published its research Journal Al-Hikmat: A Journal of Philosophy, Volume 39 of 2019.
- The theme of this year's World Philosophy Day was "Peace". In order to celebrate the World Philosophy Day, the Department arranged a lecture and a walk. Mr. Shahid Mahmood Gul, Incharge of the Department, gave a thought-provoking lecture on the theme "Peace". After it, a walk was conducted in which faculty members and students participated to highlight the message of tolerance in society.
- In this academic session, most of faculty members of the Department presented their research outcomes in Philosophy.

PAKISTAN STUDY CENTRE

Telephone (s): +92-42-99231148, 99231196

Fax Number (s): +92-42-99231148

E-mail Address (s): director.psc@pu.edu.pk

○ **MS and PhD Programmes**

M. Phil. and Ph.D. (Pakistan Studies)

○ **Academic Achievements**

Three (03) PhD scholars and more than Twenty (20) M. Phil. scholars passed out during the said period.

○ **Foreign Academic Linkages**

Linkages has been established with foreign eminent academicians and consequently they have been visiting the Centre and delivered the lectures.



○ **Institutional Linkages**

- The Centre established INSTITUTE OF THE BELT AND ROAD in collaboration with Sichuan University, China in December 2019.
- The Centre has been exchanging publications with different national and international research organizations. Under the programme, the library of the Centre is receiving more than 20 research journals covering a vast field of subjects.

DEPARTMENT OF FRENCH

Telephone (s): +92-42-35293858

E-mail Address (s): info.french@pu.edu.pk, chairperson.french@pu.edu.pk

○ **Undergraduate and Postgraduate Programmes**

Graduate programme: Honors with major in French

Successful Graduation of Fourth Batch of BS French: The Spring term 2020 witnessed new trends in teaching and learning process for graduate programmes triggered by the pandemic of Covid 19. The running semesters were successfully shifted to online mode of teaching. Consequently, the French department adjusted its various modules for Open Book Exam Strategies and the courses were completed without any interruption. The BS intake was 100% for the 6th consecutive year with all merit seats duly filled. Despite multiple challenges of Covid 19, the graduating batch successfully completed the studies with all due submissions with dedication and commitment. Spoken French sessions and viva voce were also held online. Videos of interpretation and translation sessions were also recorded and submitted for evaluation.

The students of BS French programme completed their internship in different institutions including internship in Media and Communications, Educational institutions, etc.

Master in French

The students of Master in French were offered specializations in French for their final term studies. These graduating students participated in various projects in the specialized field of Translation & Interpretership Studies as follows:

- Translation of 3 Scientific Research Articles
- French to English translation of various Authentic Documents
- English to French Translation of a book : "How the Messenger of Allah (peace be upon him) taught his students – the Sunnah in today's classroom" by Jahangir Mahmud.

Various other projects in specialized field of French for Arts & History were also completed in French by the Master programme students. They submitted their projects in the following domains:

- Modern and Contemporary Art ; L'Art Moderne et l'Art Contemporaine
- The Artistic Movements ; Les Courants Artistiques
- The Islamic Art ; L'Art Islamique

Various workshops in Soft Skills in French were also conducted. The graduating students completed their projects henceforth in the respective domain. The topics were as follows:



- Conflict Resolution; Résoudre des conflits
- Anger Management; Gestion de la Colère
- Stress Management; Gestion du Stress
- Public Speaking; Parler en public
- Art of Delegation; Déléguer les pouvoirs
- Problem Solving and Decision Making; Résoudre des problèmes et prises de décisions

Options of various Specialized fields in the final term of Master programme in French provide opportunities to our passing out graduates to develop a professional expertise in the specialized domain and hence participate in the social as well as economic development of Pakistan through their role as Expert in French Studies, as Translator and Interpreter, as Teacher, as Researcher, as Educator, etc.

○ **Foreign academic linkages**

Affiliation with

- Alliance Française d' Islamabad
- Alliance Française de Lahore
- Embassy of France, Islamabad
- The usual institutional collaboration in various academic and co-curricular activities was however not possible due to the pandemic.

○ **Institutional linkages**

- Lahore College for Women University, Lahore.
- Kinnaird College University, Lahore.
- Government Postgraduate College for Women, Chuna Mundi, Lahore.
- Aitchison College
- SYCAS
- TNS
- Beacon House

Faculty of Behavioral & Social Sciences

DEPARTMENT OF GENDER STUDIES

Telephone (s): 042-99233124, 99233125

Fax Number (s): 042-35952993

E-mail Address (s): chairperson.dws@pu.edu.pk

○ **Undergraduate and Postgraduate Programmes**

- M.Sc Gender Studies (2 years Master Program)
No. of seats: 50 (Morning and Replica Each)
Requirement: B.A/B.Sc/equivalent examination with 2nd Division.
- BS (Hons) (4 Years Program)
Requirement: Intermediate or equivalent examinations (GCE, A level, ICS, I.Com)
No. of Seats: (50 Morning, 70 Self-Supporting)



- **MS and PhD Programmes**
 - Ph.D (Three years program): No. seats: (10 Morning and 10 Self-Supporting)
Requirement: M.Phil/MS in Social Sciences
 - M.Phil Gender Studies (2 years Program): No. of Seats: (20 Morning and 20 Self Supporting)
Requirement: Master in Social Sciences
- **Academic Achievements**
 - Journal of Gender & Development
 - Students Magazine: Intellectual Youth
 - Newsletter: Zeal
- **Institutional Linkages**
 - Ministry of Women Development
 - Directorate of Women Development, Punjab
 - Women Empowerment Group

DEPARTMENT OF POLITICAL SCIENCE

Telephone (s): +92-42-99231229
 Fax Number (s): +92-42-35838263
 E-mail Address (s): chairperson@polsc.pu.edu.pk

- **Undergraduate and Postgraduate Programs**
 - BS (Hons.) 4 Yrs. Program (Political Science)
 - M.A. Political Science
 - M.A. International Relations
 - M.A. Diplomacy & Strategic Studies
- **MS and Ph.D. Programs**
 - M.Phil. (Political Science) Regular & Self Supporting Program
 - M.Phil. (International Relations) Regular & Self Supporting Program
 - Ph.D. (Political Science) Regular & Self Supporting Program
 - Ph.D. (International Relations) Regular & Self Supporting Program

DEPARTMENT OF SOCIAL WORK

Telephone (s): +92-42-99231553
 Fax Number (s): +92-42-99230958
 E-mail Address (s): chairman.dsw@pu.edu.pk

- **Undergraduate and Postgraduate Programmes**
 - BS 04 Years in Replica
 - M.Sc. Programme in Morning & Replica classes
- **Academic Achievements**

A Public Defense of PhD in Social Work was held on 09th December, 2019 at the Department of Social Work, University of the Punjab, Lahore.



○ **Institutional Linkages**

- At national and international level:
 - Social Welfare & Bait-ul-Maal Department, Govt. of the Punjab
 - Child Protection & Welfare Bureau, Govt. of the Punjab
 - Ministry of Human Rights, Govt. of Pakistan
 - Special Education Department, Govt. of the Punjab
 - Directorate General of Labour Welfare, Govt. of the Punjab
 - Community World Service Asia (CWSA)
 - AKHUWAT
 - AGAHE
 - UNICEF

INSTITUTE OF COMMUNICATION STUDIES

Telephone (s): +92-42-99230518, 99231225

Fax Number (s): +92-42-99231182

○ **Undergraduate and Postgraduate Programmes**

- BS (4 Years) Communication Studies (Morning/Regular Program)
- BS (4 Years) Communication Studies (Replica/Self-Supporting Program)
- M.Sc Communication Studies (Morning Program) with four specializations:
 - Communication Theory and Print Media
 - Public Relations and Advertising
 - Electronic Media (Radio & Television)
 - Digital Media
- M.Sc Communication Studies (Replica Program) with four specializations:
 - Communication Theory and Print Media
 - Public Relations and Advertising
 - Electronic Media (Radio & Television)
 - Digital Media
- M.Sc Communication Studies (Development Journalism) Evening Program
- M.Sc Communication Studies (Film and TV Production) Evening Program

○ **MS and PhD Programmes**

- M. Phil Communication Studies (Research Track) Regular Program
- M. Phil Communication Studies (Professional Track) Regular Program
- M. Phil Communication Studies (Professional Track) Self-Supporting Program
- Ph. D Communication Studies

○ **Academic Achievements**

The students have achieved academic distinctions in various events. Their documentaries have been selected in national events.

○ **Honors and Awards**

The students have won different honors and awards on documentaries etc.



○ **Institutional Linkages**

The Institute of Communication Studies has linkages with various Television Channels, Newspapers, Public Relation Departments and Advertising Agencies.

INSTITUTE OF SOCIAL & CULTURAL STUDIES

Telephone (s): +92-42-99233126

Fax Number (s): +92-42-99232375

E-mail Address (s): director.iscs@pu.edu.pk

○ **Undergraduate and Postgraduate Programmes**

- BS (4 years) Sociology & Sociocultural Studies (Regular)
- BS (4 years) Sociology & Sociocultural Studies (Replica/Self-Supporting)
- MSc Sociology (Regular)
- MSc Sociology (Replica Self-Supporting)
- MSc Development Studies (Regular)
- MSc Development Studies (Replica Self-Supporting)
- MSc Population Sciences (MPS) (Afternoon/Self-Supporting)
- MSc Population Sciences (MPS) (Afternoon/Self-Supporting)

○ **M.Phil. and PhD Programmes**

- M.Phil. Sociology (Regular)
- M.Phil. Sociology (Replica)
- M.Phil. Education Policy & Development (Regular)
- M.Phil Education Policy & Development (Replica)
- M.Phil Public Health (Evening)
- Ph.D Sociology
- Ph.D Public Health (Evening)

○ **Academic Achievements**

Academic programs of Institute of Social & Cultural Studies are running smoothly.

○ **Foreign Academic Linkages**

- Linkages with Belfield University, Germany
- Student Exchange with Erfurt, Germany.
- Linkages with Leeds University, UK

○ **Institutional Linkages**

- National Centre for Resettlement and Rehabilitation in Collaboration with World Bank.
- Establishment of Sughra Begum Center for Educational Policy & Development in collaboration with PEP Foundation in New York, USA.
- Centre for Peace & Security Studies
- Day Care Center with Collaboration of Women Development Department, Government of the Punjab



Faculty of Commerce

HAILEY COLLEGE OF BANKING & FINANCE

Telephone (s): 92-42-99333359, 60, 64

E-mail Address (s): principal@puhcbf.edu.pk

○ **Undergraduate and Postgraduates Programmes**

- Undergraduate Programs
 - BBA (Hons.) Banking & Finance
 - BBA (Hons.) Insurance & Risk Management
 - BBA (2-Years) – Morning & Evening Programs. After 14 Years of Education.
- Postgraduate Programs:
 - MBA Program 3.5 Years Regular Morning & Evening Program after 14 years of education in the following disciplines:
 - (a) Banking & Finance (b) Insurance & Risk Management
 - MBA (2-Years) – Morning & Evening Programs. After 16 Years of Education

○ **Academic Achievements**

Our degree programs are tailored to meet needs of Banking, Insurance Industry and Corporate World. We have earned repute on account of performance of our students in the field of Banking, Finance, Insurance & Risk Management. Financial sector recognizes and acknowledges the potential, excellence, practical knowledge and professionalism of our graduates. They are rendering services in Corporate Sector, Banks, Financial Institutions and Insurance Sector both at home and abroad. Our qualified students are also serving the Civil Services of Pakistan besides public sector entities including Excise & Taxation AG Office, Civil Secretariat, Police, Armed Forces and LDA etc.

○ **Foreign Academic Linkages**

We do not have any formal Academic Linkages, However, transfer credit are being accepted by Universities in Australia, UK and USA.

○ **Institutional Linkages**

We have strong Institutional Linkage with Lahore Insurance Institute (LII), Lahore. They are facilitating us in curriculum development and providing faculty for teaching. We are also in liaison with Banking & Financial Institutions Asset Management Companies, Lahore Chapter of Pakistan Stock Exchange and Forex Companies for imparting Knowledge on practical aspects. The College has signed MOU with reputed organization also to accomplish common objective.

HAILEY COLLEGE OF COMMERCE

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Fax Number (s): +92-42-99231274

E-mail Address (s): principal@hcc.pu.edu.pk



- **Undergraduate and Postgraduate Programmes**
 - B.Com. Hons. (Semester System): 04 years Programme
 - BS Accounting & Finance: 04 years Programme
 - M.Com (Semester System): 3 ½ years Programme after 14 years schooling
 - D.C.M.A: Post Graduate Diploma in Cost and Management Accounting
 - DED: Post Graduate Diploma in Entrepreneurship
- **MS and PhD Programmes**
 - M.Com (Semester System): 1 ½ years Programme after 16 years schooling
 - M.Phill (Semester System) in Commerce
 - Ph.D (Semester System) in Commerce
- **Academic Achievement**
NBEAC 2016-2018
- **Institutional Linkages**
 - With ACCA and Ora Tech established
 - Negotiation with ICAP & ICMA
 - SMEDA
 - Executive youth Forum
 - Federation of Pakistan Chamber of Commerce & Industry (FPCCI)
 - Women chamber of Commerce & Industry

Faculty of Economics & Management Sciences

DEPARTMENT OF ECONOMICS

Telephone (s): +92-42-9231167

Fax Number (s): +92-42-9230478

E-mail Address (s): chairman@eco.pu.edu.pk

- **Undergraduate and Postgraduate Programmes**
 - **Bachelor of Economics (Regular/Self-Supporting)** is a four-year degree program that provides undergraduate training in both theoretical and applied aspects of modern economics. This program was initiated in 2017 to cater increasing demand of 4-years BS degree program in economics given that HEC has announced phasing out of conventional two year B.A. /B.Sc. program.
 - **M.Sc. Economics (Regular/Self-Supporting)** is a two-year program that prepares students for advance studies in economics and disseminates comprehensive knowledge focused at applied and quantitative economics. The applied courses (that require research work) taught in this program distinguish it from M.A. (Economics) offered in other institutions.



- MBEcon (Self-Supporting) is a two-year program that aimed at producing entrepreneurial class that will help in promoting industrial growth of the economy. The participants of the program would be trained to work as professional economists, managers, financial analysts, bankers and business executives.
- **Post Graduate Diploma in Applied Economics (PGDAE)** is a rigorous one year evening program in Applied Economics. It is useful for those who could not continue their studies after graduation and now want to do M.Sc. Economics and MBEcon. The Department of Economics has proposed some additional benefits for Diploma holders in the form of special seats in M.Sc. Economics morning and replica programs, as well as, in MBEcon program.
- **MS and PhD Programmes**
 - M.Phil. Economics (Morning/Self-Supporting) is a two year program and its successful graduates have prosperous professional careers. Our students are not just competent in their core area of study but also able to ascertain and synthesize existing knowledge for undertaking empirical research on economic issues in an effective manner. During program they acquire a broad knowledge base aiming at bringing the students to global research frontier.
 - **Ph.D. Program:** The most prestigious program of the department is Ph.D. (Economics). This program aims to fill the professional vacuum of social scientists in Pakistan as expatriation of economists and researchers is seen to catch up attractive jobs in foreign countries. Our Ph.D. program enables students for notable contributions in the field of economics and equips them with necessary empirical skills which are required for policy oriented research. The Ph.D. program emphasizes full time course work/research. Part-time course work or research is not permissible.
- **Foreign Academic Linkages**

Foreign academic linkages have become significant for institutions who think and act globally. In order to promote mobility of doctoral students with the purpose of strengthening scientific cooperation between their institutions, an agreement was made between Lille 1 University, France and University of the Punjab, Pakistan to prepare a co-supervised Ph.D. thesis in Economics of Mr. Maqsood Aslam (doctoral student). The expected duration of research work is from October 2016 – October 2019. The two thesis supervisors appointed to take part in the co-supervision of the thesis are:

 - At Lille 1 University: Etienne FARVAQUE
 - At University of the Punjab: Muhammad Azmat Hayat

It is pertinent to mention that Mr. Maqsood Aslam has successfully defended his Ph.D. thesis within the stipulated time period.
- **Institutional Linkages**

Given the value of national collaboration in the academic and research area, department has agreed MOU with Centre of Excellence for CPEC, PIDE. This MOU will remain in force for a period of three years. The purpose of this Memorandum of Understanding (MOU) is to promote evidence-based research and policy in CPEC related policy issues. The methods of cooperation includes research and academic activities or programs such as:



- Joint CPEC related research collaborations and joint publications of research papers resulting from the collaboration within program cooperation.
- Exchange of Faculty/Researchers, trainees, students and staff as appropriate.
- Participation in, and co-hosting of lectures, meetings, seminars, symposia and conferences.
- Exchange of materials, publications and other information, within limits of legal rule and regulations.
- Invitation/participation by students/researchers in fully funded national and international conferences, seminars, events, etc.
- Joint application for funding for collaborative projects from relevant funding agencies.

DEPARTMENT OF INFORMATION MANAGEMENT

Telephone (s): +92-42-99231224

E-mail Address (s): chairperson.im@pu.edu.pk

○ **Undergraduate and Postgraduate Programs**

There is a morning and a replica Masters in Information Management (MIM) programs.

MS and PhD Programs

The Department also offers M.Phil and PhD programs.

○ **Academic Achievements**

In 2018 forty students got their Master's degree.

In 2018 four students got their M.Phil and two students got Ph.D degree.

○ **Institutional Linkages**

The Department has become the first institution of Pakistan to get the membership of CiSAP (Consortium of iSchools Asia Pacific), and got institutional membership of Association for Library and Information Science Education (ALISE).

INSTITUTE OF ADMINISTRATIVE SCIENCES

Telephone (s): 92-42-99231164, 99231165

E-mail Address (s): director.ias@pu.edu.pk

○ **Academic Activities**

Educational programs at the Institute of Administrative Sciences are organized under the semester system. Learner centered teaching, quality research by faculty as well as by students, comprehensive examinations, a strong link with employers, all contribute to the quality of education at IAS. Students are also offered assistance in finding internships and jobs in addition to academic and career counseling, referrals & placement services, a well-equipped library and computer laboratory. IAS library has 12 licenses of NVIVO software and has a separate lab for research program students. A distinct feature of the Institute is its competent and committed faculty comprising of twenty three permanent members.

IAS is a modern, vibrant and innovative institute that offers a wide range of career oriented as well as socially required and globally relevant academic programs from BS in Management to PhD in Management. Our academic portfolio consists of the following programs:



- BS in Management (Human Resource Management, Marketing, Finance, Public Management & Supply Chain Management) - offered as Regular and Self Support Program
- Master of Human Resource Management (offered as Regular, Self Support and Executive/ Evening Program)
- Master of Marketing (offered as Regular, Self Support and Executive/ Evening Program)
- Master of Science in Health Administration (offered as Executive/ Evening Program)
- Master of Public Administration (18 years of Education, offered as Regular and Executive/ Self Support Program)
- Master of Science in Human Resource Management Program (offered as Regular, Self Support & Executive/Evening Program)
- MPhil Management (Regular Program)
- PhD Administrative Sciences (Management) (Regular Program)

Our faculty and staff are ready to be partners in the process of learning and personal development of students in their studies and professional development. We are committed to providing rewarding educational experience which is the hallmark of our Institute. In the past few years, we have made major additions in our undergraduate and graduate degree programs – by introducing the element of research and practical assignments/ projects in almost all the courses offered. We subscribe to twenty journals and approximately thirty five thousand books of different authors and topics in the department library to facilitate students in their research. Our talented and dynamic faculty is better educated and trained to provide individual attention and a life changing development experience. Furthermore, we continue to work for the up gradation of our faculty by providing them research opportunities at various foreign universities and some of them are already in a process to earn doctorate from abroad which will further add to the knowledge base of the Institute and stimulate future research opportunities amongst the student body.

INSTITUTE OF BUSINESS ADMINISTRATION

Telephone (s): +92-42-99231257-58

Fax Number (s): +92-42-99231259

E-mail Address (s): director.iba@pu.edu.pk

○ **Undergraduate and Postgraduate Programmes**

Currently, the following undergraduate and postgraduate programs are being offered by this institute

- BBA (Hons) (Morning/Afternoon) Program
- MBA 1.5 Years (Morning) Program
- Executive MBA (Evening) Program

○ **MS and PhD Programmes**

IBA offered M.Phil in Business Administration during the reporting period and there were 20 seats for this program. IBA also offered admissions in Ph.D in Business Administration Program during the reported period and there were 10 seats for this program.



○ Academic Achievements

Institute of Business Administration (IBA) traces its history back to 1972 as a department. Later on, in 1987, the department was upgraded to the status of Institute. This was a great mile-stone in the history of the University, as IBA was the second institute in Pakistan where teaching of business administration was being offered. The Institute was shifted to its existing building in 1994. One year Post Graduate Diploma in Business Administration was started in 1992. To impart management education to in-service executives, MBA evening was started in 1995. In 2005, BBA (Hons) was also started for high-caliber under-graduate students who are both academically able and exhibit strong managerial potential. BBA (Hons) is offered on regular (morning) and self-support (afternoon) basis. In 2009, MBA (One and Half years) was also started for IBA-PU BBA (Hons) graduates and the program is offered on regular basis. Aimed at developing advanced competencies in theorizing and research, IBA started M.Phil in Business Administration and Ph.D in Business Administration programs in 2014. As per revised Business Education Roadmap of Higher Education Commission (HEC), Islamabad dated 28 March 2019, Executive MBA (equivalent to 18 years educations) has been started at this institute during the reporting period. To-date, IBA has produced 73 M. Phil in Business Administration, 567 MBA (1.5) Years, 5248 MBAs, 1153 BBAs, 1260 PGDs and 9 ABMs and they are making valuable services at both national and international level.

The detail is given as under:-

Sr. No.	Program	No. of Students		
		Previous	During reporting period	To-date
1	M. Phil in Business Administration	51	22	73
2	MBA 1.5 Years (Morning)	481	57	538
3	MBA 1.5 Years (Afternoon) (presently not offered)	29	-	29
4	MBA (Morning) (presently not offered)	2452	-	2452
5	MBA (Evening)	2688	108	2796
6	BBA Hons (Morning)	503	56	559
7	BBA Hons (Afternoon)	545	49	594
8	PGD (Evening)	1260	-	1260
9	ABM (Evening) (presently not offered)	9	-	9

■ Number of permanent/contract faculty members

Sr. No.	Post	Nos.
1	Professor	1
2	Associate Professor	2
3	Assistant Professor	10
4	Lecturer	4

○ Institutional Linkages

Expanding its endeavor to promote linkages, Institute of Business Administration (IBA) has entered into a strategic partnership with prestigious institutions, *Plan9*, *Bank Alfalah*,



Meezan Bank and M/s Roozi.com. The purpose of these MOUs are to provide mentorship, trainings and to arrange workshops for them. The best part of these MOUs are all these services will be provided at free of cost.

Memorandum of Understanding (MOU's) with Institute of Business Administration (IBA)

▪ *Plan 9*

In line with its commitment to excellence, IBA-PU has entered into a partnership with Plan 9 Technology Incubator.

The Plan 9 Network Partners envisions promoting entrepreneurship in Pakistan by collaborating with institutions and organizations that share the same vision. Plan9 aims to replicate its model of business incubation that is considered credible globally. It will guide network partners in implementing the model.

▪ *Bank Alfalah*

The agreement comes as an extension of Bank Alfalah's recent endeavor for strengthening industry and academia by promoting mutual cooperation for creating and imparting relevant, effective and new forms of knowledge and expertise.

▪ *Meezan Bank*

MOU is hereby made and entered into by and between Meezan Bank, a banking company established and existing under the laws of Pakistan and Institute of Business Administration, University of the Punjab. The parties here to be desirous of working together to develop and expand a framework of learning partnership between Meezan Bank and (IBA-PU) to establish and implement joint efforts to bridge the gap between industry and academia.

▪ *IBA Job Rozee Portal*

IBA made an agreement with M/s Rozee for development of IBA Job Rozee Portal. IBA Job Rozee Portal is now opened for the students of IBA. This is a great opportunity for placement opportunities for IBA students.

INSTITUTE OF BUSINESS & INFORMATION TECHNOLOGY

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○ **Undergraduate and Postgraduate Programmes**

The Institute is running two programs BBIT (Hons.) and MBIT (via BBIT). BBIT and MBIT both are intradisciplinary programs of Business and Information Technology.

The details of degree programs are given below:

- **BBIT (Hons.)** degree is a Four (04) Year Full Time program, consists of 130 credit hours, which is conducted through Eight (08) Semesters. Three Specializations i.e. Finance, Marketing, and Information Technology, are offered to the enrolled students in 5th semester.



To be eligible for BBIT(Hons.) a candidate must have passed Intermediate preferably in Science/ICS/Commerce discipline with at least 60% obtained marks.

- **MBIT (via BBIT)** degree is one-and-a-half-year Full Time Study with Research program consists of 36 credit hours out of which 6 credit hours are for Thesis. This degree is equivalent to MS/MPhil according to the HEC roadmap.

To be eligible for the MBIT (via BBIT) program, a candidate must have BBIT (Hons.) degree from BBIT.

Faculty of Education

DEPARTMENT OF SPECIAL EDUCATION

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- **Undergraduate and Postgraduate Programmes**

Master in Special Education

- **MS and PhD Programmes**

- M.Phil in Special Education
- Ph.D in Special Education

- **Institutional Links**

The Institute is linked with Directorate of Special Education, Punjab, Directorate of Staff Development (DSD) for the training of in-service teachers in inclusive education. It is also in liaison with Rising Sun Institute for Children with Mental Retardation, Amin Maktab Centre for Children with Mental Retardation, Child Welfare Centre for Mentally Challenged Children, Hamza Foundation Academy for the Deaf, Allama Iqbal Centre for Girls with Blindness and Punjab Public Service Commission.

INSTITUTE OF EDUCATION AND RESEARCH

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- **Undergraduate and Postgraduate Programmes**

- M.A. Education Elementary (2 years)
- M.A. Education Secondary (2 years)
- M. A. Education Islamic (2 years)
- M. A. Early Childhood Education (2 years)
- M.A. English Language Teaching & Linguistics (2 years)
- Master of Business Education (M.B.E) (2 years)
- Master of Science Education (M.S.Ed.) (2 years)



- Master of Technology Education (M.T.E.) (2 years)
- Master of Educational Research & Assessment (2 years)
- B.Ed. (Hons) Elementary (4 years)
- B.S.Ed (Hons) (4 years)
- B.Ed (1.5 years)
- **MS/ PhD Programmes**
 - M. Phil Education (2 years)
 - Ph.D in Education (5 years)

○ **Academic Achievements**

This brief report provides information pertaining to the academic activities at IER during the period 01-10-2019 to 30-09-2020. During this period 332 students were enrolled in Bachelor degree programmes, 520 students were enrolled in all master degree programs. During this period 579 completed their Master Degrees, 207 M.Phil and 15 students were awarded Ph.D Degree. In this period 159 books and 07 Foreign Research Journals were added in the library. There are total 52 faculty members teaching in the IER.

○ **Institutional Linkages**

MOU under Prime Minister's "Skill for All" Hunarmand Pakistan Programme (Kamyab Jawan Initiative) With National Vocational and Technical Training Commission, (NAVTTTC) Government of Pakistan.

A memorandum of understand was signed between Institute of Education and Research (IER) and National Vocational and Technical Training Commission, (NAVTTTC) Government of Pakistan on 17-02-2020 under Prime Minister's ("Skills for All" HUNARMAND Pakistan Program ("Kamyab Jawan Initiative") Both are desirous of forgoing mutual support to achieve their goals and objectives to promote technical and vocational education and training (TEVT) system in Pakistan, it is the intent and the purpose of the parties heir to that this MoU constitutes an implementation framework for skills for Hunermaund Pakistan program kamyab jawan initiative will be financed as per parameters mentioned below:-

The Program is titled ("Skills for All" HUNARMAND Pakistan Program (Kamyab Jawan Initiative") for skill development training of 225 youth persons for (03-06 months) in following Trades;

Trades / Technologies	Category	Training Duration (03 & 06) Months	No. of Trainees /Allocated Seats
A) CAD, CAE & Digital Manufacturing For Product Design, B) Certificate in IT (CIT) (WEB Graphics & Mobile App Development) C) Game Development And Modelling	High-Tech	6 Months	225



Faculty of Engineering & Technology

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○ **Postgraduate Programmes**

M.Sc. Coal Technology (Regular Morning Programme)

○ **MS and Ph. D. Programmes**

M.Phil. Coal Technology (Self-Supporting Evening Programme)

M.Sc. (Engg.) Energy & Environmental Engineering (Self-Supporting Evening Programme)

○ **Academic Achievements**

Approval of five degree programs from academic council namely;

- B.Sc. (Engg.) Energy Engineering
- B.Sc. (Engg.) Environmental Engineering
- M.Sc. (Engg.) Sustainable Engineering
- M.Sc. (Engg.) Risk and Reliability Engineering
- PhD Energy Engineering

In addition, several other short courses have also been approved which are as follows.

- Safety Systems – Tools and Methods
- Fundamentals of Industrial Safety Engineering
- Health, Safety Environmental & Workplace Safety
- Fundamentals of Reliability Engineering
- The Safety Life Cycle, Risk Reduction & Safety Management
- Research Methods
- Energy Auditing and Life Cycle Analysis
- Fundamentals of Fuels and Combustion
- Fundamentals of Combustion Engineering
- Basics of Coal Combustion
- Clean Coal Technologies
- Fundamentals of Energy Engineering
- Basics of Fuel Testing
- Coal Storage and Beneficiation
- Coal/Biomass Conversion Technologies
- Basic Computer Skills
- Entrepreneurship
- Project Management
- Computer Aided Engineering Drawing
- Data Analysis
- Coal Storage
- Life Cycle Analysis



DEPARTMENT OF POLYMER ENGINEERING & TECHNOLOGY

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○ **Undergraduate and Postgraduate Programmes**

Department of Polymer Engineering and Technology is on the way to start B.Sc. Polymer Engineering 4 years regular degree program along with specializations in the coming year. Proposed course work for B.Sc Engineering program is completed and will be submitted to Board of Studies for approval in near future. Courses and laboratories experiment designs are designed per rules and regulations of Higher Education Commission (HEC). Working for zero visit of Pakistan Engineering Council (PEC) has also been started in terms of adjustment of labs and course work to get accreditation.

○ **MS and Ph.D Programme**

M.Phil Polymer Technology (Self Supporting Evening Degree Programme 2 years)

- Polymer Engineering is the study of synthesis, structure, processing, properties and application of polymers products. Polymers are the basis of materials including plastics, fibers, textiles, rubber, films, paints, membranes, composites, biomaterials and adhesives. We have established facilities with state of the art research equipments for Polymers synthesis and characterization and research and development. These facilities are engaged in activities ranging from development of advanced materials and their characterization and finally their product development. Based on these facilities, Department is working with M.Phil Polymer Technology since 2011. The primary objective of M.Phil Polymer Technology Program is to bring students of different domains under one umbrella and to provide them with basic and advance knowledge of Polymer Engineering and Technology. Course work is now redesigned in order to provide students with maximum knowledge of multiple polymer industries operating worldwide in Pakistan. One-year course work comprising of two semesters provides an insight of polymer synthesis, characterization, production and processing of maximum polymer industries. Afterwards, one-year research work comprised of two semesters provide opportunity to the students to work on specialized topics in the polymer field to implement the previous theoretical knowledge in practical form.
- Our running M.Phil Programme strictly followed the semester rules and regulations. Even in this stringent pandemic conditions, department continues its research activities and managed to complete the session 2018-2020 in time.

M.Sc. Polymer and Petrochemical Engineering (2 years Regular Morning and Self Supporting Evening Degree Programme)

- The Department of Polymer Engineering and Technology is going to offer a new course in M.Sc. Polymer and Petrochemical Engineering. Course objective to provide students an advance knowledge of Polymer and Petrochemical Engineering. The course is especially designed for students with engineering background. During first year (two semesters) provides an insight of synthesis, characterization, production and processing



and engineering aspects of polymer and petrochemical industries. One-year research work comprised of two semesters allows students to work on specialized topics in the polymer and petrochemical engineering field to implement the previous theoretical knowledge in practical form. The proposed course structure and outline has been approved by Board of Studies(BOS). Department is preparing the documents and course for approval from Board of Faculty (BOF) and Academic council and also for NOC from Higher Education Commission (HEC), Pakistan.

M.Sc. Polymer and Fiber Engineering (Two year Regular Morning and Self Supporting Evening Degree Programme)

- In addition to M.Phil Polymer Technology programme and M.Sc. Polymer and Petrochemical Engineering programme, the department is in plan to start M.Sc. Polymer and Fiber Engineering degree programme. Planned program will be launched in both morning session as regular program and in evening session as self-supporting program to facilitate students doing jobs. The course outline has been prepared which will be presented for approval in the upcoming Board of Studies. The course is open to all students with engineering background with special focus on textile and fiber engineering. Course work has been designed to provide students with maximum knowledge of all aspects of advanced polymer and fiber engineering.

- **Ph.D Polymer Technology (Regular Morning Programme)**

The core objective of this interdisciplinary Ph.D Polymer Technology Program is to enhance the research capabilities of students and professionals of different areas by working on exclusive real time research projects. Specially designed course work provides them with advance knowledge of Polymer Engineering and Technology, synthesis and testing. One-year course work comprising of two semesters provide an advance understanding of polymer synthesis, rheology, characterization, separation and processing of multiple common and specialized polymers. Three to five years research plan allows students to work on specialized topics in the polymer field to implement the previous theoretical knowledge in practical form. Publications in high impact factor journals are the mandatory feature of Ph.D program and is being strictly implemented. Department is also in plan to revise the course outline for this program and revised course work is under preparation.

- One year (Two semester) exclusive course work of advance levels
- Regular classes Lectures
- Mid-term and final term papers
- Quizzes
- Regular presentations during the classes on exclusive topics related to the subject
- Knowledge of state-of-the-art research equipments
- Proper presentations and defense of synopsis
- Approval of synopsis from Departmental Doctoral Program Coordination Committee (DDPC)



- Approval of synopsis from Advance Study and Research Board (ASRB), University of the Punjab
 - Startup of research work with regular reporting of the student to the supervisor
 - Seminars on research topics
 - Full time research work on projects of applied nature
- **Academic Achievements**
- In 2019-20, department successfully continued M.Phil Polymer Technology Program. Viva voce exam of the session 2018-2020 were conducted in time strictly following all SOP's mentioned by University for COVID. Admission for the session 2020-21 are in progress.
 - The course work of Ph.D Polymer Technology session 2018 was completed in time and their working on synopsis was started.
 - 24 research paper are published in 2019-20 by faculty member and students in national and international journals.
 - 04 projects of faculty members were approved for research and development from Punjab University research grant.
 - Research thesis of students are continued and monitored exclusively.
 - Departmental Doctoral Program Coordination Committee (DDPC) worked positively during the year 2019-20 for its functioning. Major working was done regarding Ph.D working. A number of meetings of DDPC were conducted and Ph.D synopsis of students were discussed and approved. These synopses after corrections and recommendations of DDPC were then forwarded to Doctoral Program Coordination Committee (DPPC) and later for Advance Study and Research Board (ASRB) of University of the Punjab for final approval of supervisors and topics. As a result, 14 synopses have been approved in ASRB during the year 2019-20 and now students are continuing their work on their respective research topics.
- **Foreign Academic Linkages**
- Foreign Academic Linkages has been initiated with foreign universities as listed below:
- North Carolina States University USA
 - James Graham Brown Cancer Center, University of Louisville, Kentucky USA.
 - WR Grace, Cytec and Mallard Creek Polymers and The Lewis Chemical Company, USA
 - Department of Biomedical and Electronics Engineering, University of Bradford, UK
 - Department of Food Science, RUTGERS, The state University of New Jersey, USA
 - Universiti Malaya, Malaysia
 - Department of Petroleum Engineering, Universiti Teknologi PETRONAS, Malaysia
 - Department of Chemical Engineering, Universiti Teknologi PETRONAS, Malaysia
 - Department of Chemical Engineering, University of Jeddah, Saudi Arabia
- **Institutional Linkages (National Level)**
- Universities and R&D Organizations
- Department is already working with several institutions and R&D organizations in joint collaborations for paper publications, research activities and product development. Efforts



have been made to strength these relations by working on more projects and by enhancing new relations with new universities. List is as follows: Institute of Chemistry PU Lahore

- Institute of Chemistry PU, Lahore
- Government College University (GCU), Lahore
- Government College University (GCU), Faisalabad
- National University of Science and Technology (NUST), Islamabad
- Quaid-e-Azam University, Islamabad
- Centre for Solid State Physics PU, Lahore
- University of Engineering & Technology (UET), Lahore
- IRCBM Comsats, Lahore

▪ **Industries**

Polymer Engineering and Technology is one of the strongest areas in which world is progressing. Therefore, there is immense need to hook up with national and international industries to get real time projects in this particular area. Since day one, department of Polymer Engineering and Technology is working hard to establish strong practical and professional relations with the industries. These efforts brought a number of industries on one platform of Polymer Engineering Department to work in coordination for product development and solution provision. In 2019-20 these research collaborations are even made stronger with a number of industries as under:

- Marjan Polymer Industries, Lahore
- Anwar Khawaja Industries, Sialkot
- Chawla group of industries
- Two MoU has been signed with industries for joint funded research projects with
- Reliance polymer industries, Lahore
- Shafi Reso Chem Industries, Lahore

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○ **Undergraduate and Postgraduate Programmes**

During 2019-20 academic period, the Department of Metallurgy & Materials Engineering enrolled 47 and 35 students in B.Sc. (Engg.) Metallurgy & Materials Engineering Regular and Self-Supporting programmes, respectively.

○ **MS and PhD Programmes**

During 2019-20 academic period, the Department of Metallurgy & Materials Engineering enrolled 12 students in M.Sc. (Engg.) Metallurgy & Materials Engineering programme.

○ **Academic Achievements**

- Faculty members published about 27 papers in peer-reviewed impact factor journals.
- Pakistan Engineering Council accredited B.Sc. (Engg.) program for batches 2015 and 2016.



- **Foreign Academic Linkage**
 - Dr. Aidan Westwood, University of Leeds, UK
 - Dr. Waseem Haider, Central Michigan University, USA
 - Dr. Saiful Izwan Abd Razak, Universiti Teknologi Malaysia, Johor Malaysia
 - Prof. Dr. Naesung Lee, Hybrid Materials Centre (HMC), Department of Nanotechnology and Advanced Materials Engineering, Sejong, Seoul, Republic of Korea
- **Honours and Awards**
 - Engr. Ameer Farooq, Lecturer was awarded Distinguished Service Award by National Association of Corrosion Engineers, USA
 - Engr. Zaeem Rehman, PhD Scholar, has won a best presentation award in International Symposium in Advanced Materials (ISAM) 2019 held at National Centre for Physics, Quaid-e-Azam University, Islamabad
- **Institutional Linkages**
 - University of Engineering and Technology (UET), Lahore
 - Institute of Chemical Engineering and Technology (ICET), University of the Punjab Lahore
 - Solid State Physics, University of the Punjab, Lahore
 - Forman Christian College, Lahore
 - Government College University, Lahore

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○ **Undergraduate and Postgraduate Programmes**

The Institute of Chemical Engineering and Technology is a pioneer Institute in the field of chemical engineering and provides broad-based Chemical Engineering programs resulting in B.Sc. Engineering, M.S. Engineering, and PhD degrees. The undergraduate and post graduate programs at the Institute prepare students for profession in chemical engineering-an exciting and challenging profession that combines the principles of the physical and chemical sciences with the discipline of engineering to solve technological problems using modern tools and provide effective service to society. Institute also contributes towards continual professional development of its graduates for which Continual Professional Development Cell (CPDC) is established. The role of CPDC is to develop competence and ability of engineers for the application of theoretical knowledge to practical situations and to evolve innovative solutions to real life problems while adhering to professional ethics and acquisition of a broader understating of their obligations to society. The graduate engineers participate in the continual development of new processes and new products that form the basis of much of the manufacturing segment of the global economy.



○ **MS and PhD Programmes**

Post graduate programs of M.Sc. and PhD Chemical Engineering provides opportunity for graduates for world-class research in renewable energy, co-combustion of coal and biomass, biodiesel, catalysis, polymers, rheology, material sciences, fluid dynamics, membrane technology, reaction engineering and filtration. Our laboratory facilities support innovative experimental work and are in line with industrial applications.

The following postgraduate courses are being offered at the Institute.

- M.Sc. (Engg.) Chemical Engineering
- PhD (Engg.) Chemical Engineering

○ **Academic Achievements**

The institute has a glorious history of service to the chemical and process industry in the country and abroad. The alumni of the Institute have contributed significantly to the industrial growth and economic development of the country by helping in the design, construction, commissioning, operation and management of many important chemical plants, petroleum refineries and a number of allied industrial units. They are holding highly responsible positions in Education, Pakistan Atomic Energy Commission, Pakistan Council of Scientific and Industrial Research, Chemical and Process Industries both in the private and public sector, Defense Organizations, Universities and Governmental Departments.

The institute is home for more than thirty faculty members and approximately five hundred students. Institutes library is adorned with more than 35000 titles on chemical engineering and general sciences. Institute has also subscribed various international and national research journals. Institute has latest and state of the art computer laboratory having more than 40 computers. Additional twenty computers are installed in library to provide internet facility to the students.

The institute regularly organizes trainings, workshops, symposia and conferences. Recently 3rd International Conference on Engineering Sciences on December, 2017 was organized at the Institute in which different presenter in the engineering field from all the over the Pakistan has presented their research. Many speakers were invited from Industry to highlight the issues that Pakistan industries are facing at the moment. This way a good industrial liaison has been created with the Institute and hopefully future research of Institute will address the industrial issues as well. Industry and academics highly appreciated these activities.

A Continual Professional Development Cell (CPDC) is established at the Institute level which provides training and development courses for fresh as well as employed engineers. Recently following courses were offered at the forum of CPDC:

- Aspen / Hysys for Chemical Engineers
- Sustainable Environmental Production
- Communication Skills Development



The institute has a tradition to invite the leading organizations at the premises of the institute for recruitment of young engineers. More than 15 process units conducted their recruitment process at the institute in the current fiscal year. Some of major recruiters are Engro Fertilizer, Nestle.

The leadership at the Institute of Chemical Engineering and Technology is striving to provide excellent learning, research and co-curricular facilities. The faculty and students of the institute have access to many educational resources, as well as opportunities for both basic and applied research. The class rooms, laboratories, conference room, offices and building are upgraded to provide conducive environment to students, faculty and staff.

- **Foreign Academic Linkages**

Few MOUs have been signed with different universities at university level, recently an MOU has been signed with Universiti Teknologi Petronas and Institute of Chemical Engineering and Technology. Under this MOU sixteen students of this Institute have completed their internships at Universiti Teknologi Petronas in August 2019.

- **Honours and Awards**

Many alumni of this Institute has been decorated with Sitara-e-Imtiaz Pakistan award for their over whelming contributions in the field of Education.

- **Institutional Linkages**

The Institute has a strong linkage with the industry, public and private sector institutions including SNGPL, PCSIR Laboratories, Atomic Energy Commission, PSQCA, National University of Sciences and Technology (NUST) Islamabad, NFC IET, NFC IFR, University of Engineering & Technology (UET) Lahore to share existing facilities. Several meetings have done with Qarshi Foundation to establish an Alumni welfare fund of worth Rupees 10 Million.

An MOU is being prepared to be signed between Institute of Chemical Engineering and Technology and Brighto Paints.

DEPARTMENT OF ELECTRICAL ENGINEERING

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- **Undergraduate and Postgraduate Programmes**

B.Sc. (Engg.) Electrical Engineering
M.Sc. Electrical Engineering

- **MS and PhD Programmes**

M.Sc. Electrical Engineering

- **Foreign Academic Linkages**

Split 02 + 02 B.Sc. Electrical Engineering programmes with Jiangxi University of Science & Technology, China.

- **Honours and Awards**

Students from Institute has won dozens of Inter-University Engineering competitions.



○ **Institutional Linkages**

Faculty members are encouraged to promote academic collaboration with other institutions in terms of lectures and seminars. Mr. Umar Farooq has given many lectures on Robotics & Automation at UET, Lahore. University of The Punjab arranges training programs for students at ZTE Lab, University of Engineering & Technology Lahore on annual basis. Selected students also do internship at SUPCON Lab, University of Engineering & Technology Lahore under supervision of Prof. Dr. Khalid Mahmood ul Hasan. Dr. Kamran Abid is working with Dr. Faiz Rahman, Electropell, UK, Prof. John M. Weaver & Dr. Edward Wisage with University of Glasgow, UK to develop next-generation organic field-effect transistors. Engr. Danish Arif is working with Dr. Simon Winberg, University of Cape Town, in the field of image processing. Engr. Danish Arif is involved in research at Jiangxi University of Science & Technology and have liaison with Dr. Zhao Huatao. Engr. Akbar Ali Khan is working with Dr. K.M. Hassan, UET, in the field of machine drives.

INSTITUTE OF QUALITY & TECHNOLOGY MANAGEMENT

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○ **Undergraduate and Postgraduate Programmes**

- 4 years BSc Industrial Engineering & Management (IEM)
- 2 years MSc Quality & Performance Management (Q&PM)

○ **MS and PhD Programmes**

- 2 years MS Total Quality Management (TQM)
- 2 years MS Industrial Engineering & Management (IEM)
- 3-5 years PhD Total Quality Management (TQM) program

○ **Academic Achievements**

- Four PhD Scholars awarded Degree
- Board of Faculty and Academic Council approved major expansion/future plans of IQTM i.e. revised courses for MSc QPM. MS IEM. MS TQM and PhD IEM, four proposed centers approved, Department of IEM approved (September 2020)
- Acceptance of IQTM Proposal for training by Pakistan Atomic Energy Commission.
- Vice chancellor granted Permission for arranging Customized Trainings at IQTM. (Dec 2019)
- Contact with Pakistan Railways for CPEC-ML1 project for proposed center for Supply Chain and Project Management.
- Contract with Ministry of Science and Technology for support for proposed Centre for Standardization, Certification and Quality Control.
- IQTM and FIEDMC (Largest Special Economic Zone to be established in CPEC) entered into formal collaboration. FIEDMC has shown high interest in Industrial Trainings provided by IQTM faculty to FIEDMC members and job placements of IQTM graduates. Chairman FIEDMC extended his full support for IQTM Standardization/Certification and Supply Chain initiatives. (July 2020)
- PEC accredited two batches 2015 and 2016 of BSIEM (August 2020)



○ **Foreign Academic Linkages**

- Dr. Hakeem-Ur-Rehman (IQTM-PU) working with Guohua Wan (Shanghai Jiao Tong University, Shanghai, China) on research Project: "A hybrid approach with step-size aggregation to forecasting hierarchical time series.
- Dr.Hakeem-Ur-Rehman (IQTM-PU) working with Raza Rafique(Kean University-USA) on a research Project: Strategic development of bioenergy supply chain: Moving towards a cleaner mix. Currently Under review: Journal of Cleaner Production

○ **Institutional Linkages**

Agreement with South Asian standardization Research Centre (Chengdu) and FIEDMC.

SKILL DEVELOPMENT CENTRE

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○ **Academic Program (Short Courses)**

Lean Six Sigma (Green & Black Belt), Certified Project Management Professional, Certified HR Professional, Certified Quality Professional, Certified Health & Safety Professional, Enterprise Resource Planning (Supply Chain, Accounting, Finance & HR), Business Accounting Software (Peachtree, QuickBooks, Tally), Auto CAD, Programming (Visual Basic, Asp. Net, Java, Android and Mobile Applications), Social Media Marketing, Search Engine Optimization (SEO), Tax Management (Income Tax & Sales Tax), Introduction to Psychology, 3D Game Designing, Public Relation (PR) & Event Planning, Advertising & Brand Management, Nutrition & Fitness, CV Cover Letter Writing & Job Interviews (2 Days Workshop), Data Base (Oracle, SQL, Server), English Shorthand(Stenographer)Level-1,2,3, Personality Grooming, Spoken English Level-1, Spoken English Level-2, English Writing, Academic Writing, The Grammar Guru Course, IELTS (Preparation), Microsoft Office Management, Graphic Designing, Web Designing & Development, Fashion Designing, Interior Designing, Data Analysis by using SPSS, Professional Photography, Strategic Management, Goal Setting & Planning, Time Management & Decision Making, Developing Future Leaders, Web Engineering

Faculty of Islamic Studies

INSTITUTE OF ISLAMIC STUDIES

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○ **Postgraduate Programmes**

- BS Islamic Studies (specialization in Study of world Religion) The programe has been launched in 2016 and successful in all speres.
- M.A Islamic Studies Programme are running successfully in the department



SHEIKH ZAYED ISLAMIC CENTRE

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- **Undergraduate and Postgraduate Programmes**
 - BS Islamic Studies
- **MS and PhD Programmes**
 - M.Phil. Islamic Studies
 - Ph.D. Islamic Studies
- **Academic Achievements**
 - 112 students have completed their degrees as per following detail:
 - 85 BS Islamic Studies
 - 21 M.Phil. Islamic Studies
 - 06 Ph.D. Islamic Studies

Faculty of Law

PUNJAB UNIVERSITY LAW COLLEGE

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E-mail Address (s): principal@law.edu.pk

- **Undergraduate and Postgraduate Programmes**
 - LL.B 05 Years Program, D.T.L, D.L.L, D.I.P.L, D.E.L, D.B.L, D.I.T.L, DCLP, D.F.S.L.
- **MS and Ph.D Programmes:**
LL.M, Ph.D
- **Institutional Linkages**
 - District Bar Council
 - High Court Bar
 - Court Bar
 - Punjab Judicial Academy
 - Trade Development Authority
 - Punjab Environment Department
 - Sociology Department (P.U)

Faculty of Life Sciences

CENTRE FOR CLINICAL PSYCHOLOGY

Telephone (s): +92-42-99230533, 99231145

Fax Number (s): +92-42-99231147

E-mail Address (s): info.ccpsy@pu.edu.pk



○ **Undergraduate and Postgraduate Programme**

- BS (4 Years) in Clinical Psychology
- Advanced Diploma in Clinical Psychology

○ **MS & Ph.D. Programmes**

- MS in Clinical Psychology
- MS in Speech Language Pathology
- Ph.D. in Clinical Psychology

○ **Academic Achievements**

Details of the passed out students in each program along with new intakes is listed below.

- BS (Hons) in Clinical Psychology (Morning & Self Supporting)
31 students completed their degree
- Advanced Diploma in Clinical Psychology (Morning & Self Supporting)
18 students completed their diploma
- MS in Clinical Psychology (2 years + 1 year)
14 students completed their degree
- MS Speech and Language Pathology
19 students completed their degree
- PhD in Clinical Psychology
01 students completed their degree

○ **Foreign Academic Linkages**

- Leeds Institute of Health Sciences, Leeds, UK
United Kingdom, UK.
- School of Psychology
Australian Catholic University, Melbourne, Australia.

○ **Institutional Linkages**

Professional linkages with the following psychiatric service providing institutes are well established to provide trainee clinical psychologists an opportunity to learn through practical implications of knowledge:

- Services Hospital, Lahore.
- Mayo Hospital, Lahore.
- Sir Ganga Ram Hospital, Lahore.
- Jinnah Hospital, Lahore.
- General Hospital, Lahore.
- Punjab Institute of Mental Health, Lahore.
- Amin Maktab, Lahore.
- Shadab Training Institute, Lahore.
- Child Protection and Welfare Bureau, Lahore.
- Social Welfare Department, Govt. of Punjab, Lahore.
 - Dar-ul-Sakoon,
 - Dar-ul-Falah,
 - Chaman, Institute for Special Children.



- Turning Point, Lahore.
- Fatima Memorial Hospital, Lahore.
- The Punjab Safe Cities Authority

NATIONAL CENTRE OF EXCELLENCE IN MOLECULAR BIOLOGY

Telephone (s): +92-42-35293127

Fax Number (s): +92-42-35293149

E-mail Address (s): director@cemb.edu.pk, sao@cemb.edu.pk

○ **MS and Ph.D Programmes**

- M.Phil and Ph.D Programme in Molecular Biology

○ **Academic Achievements**

42 M.Phil and 14 Ph.D degrees were awarded to research scholars. At present, 40 faculty members are engaged in teaching and research activities and there are 50 M. Phil, and 70 Ph.D students in the Centre.

○ **Foreign Academic Linkages**

Centre is academically linked with TWAS and three students were awarded Ph.D degree during the said period under TWAS-CEMB fellowship.

○ **Honours and Awards**

- Gold Medal in Toxicology in recognition of academic achievements in the field of toxicology awarded to Dr. Kausar Malik by Executive Council of The Applied Zoological Society of Pakistan
- Post-Doctorate fellowship in University of Pennsylvania United States of America sponsored by HEC to Dr. Naila Shahid.
- Travel Award certificate and cash money to PhD scholar Hira Butt for oral abstract presentation at Wound Healing Society Annual meeting 2020.
- Award of IRSIP to PhD scholar Amna Ramzan in Stem cells group.
- Filed Patent entitled "Production of vitamin-E primed fibroblasts carrier plasma gel for treatment of diabetic wounds" in Patent office, Pakistan on Sep. 14, 2020 vide Patent Application# 591/ 2020.
- Filed Patent entitled 'Natural Inhibitory Compounds from Cassia Fistula Plant against HCV NS5A gene of Hepatitis C virus' in Patent office, Pakistan on January 27th, 2020 vide Patent Application No. 58/2020.
- Filed Patent entitled 'Natural Inhibitory Compounds Evofolin B from Tectona grandis plant against HCV NS5A gene of Hepatitis C' filed in Patent office, Pakistan on January 27th, 2020 vide Patent Application No. 60/2020.
- Prof. Dr. Ahmad Ali Shahid appointed as a member of the Board of Studies in Biochemistry & Biotechnology as constituted under the Punjab University ACT, 1973 (Duration 07.02.2020 to 06.02.2023).



- Prof. Dr. Ahmad Ali Shahid appointed as Learned Member of the Board of Studies (BOS), Department of Bioinformatics & Biotechnology, Government College University Faisalabad, for the period of three years (Duration 14.10.2020 to 13.10.2023).
- Prof. Dr. Ahmad Ali Shahid selected as Advisor to Punjab Public Service Commission.
- Dr Azra Mehmood selected as Member of Board of studies at Shaheed Zulfiqar Ali Bhutto Medical university (SZAMBU), Islamabad for developing curriculum and act as Subject expert in their interviews for admission in MPhil/ PhD program.
- Dr. Bushra Rashid was nominated by HEC to attend one week “Workshop on the formulation and study of spatial development, climate change and the environment for agricultural transformation” organized by Asian Productivity Organization Japan and The Development Academy of Philippines held in Manila, Philippines, November 18-22, 2019.
- Muhammad Shahzad, Ph.D student was selected for one year training on forensic sciences under HEC Indegenous Faculty development programme for Pakistani Universities at Professor Marie Allen’s Lab, Biomedical Centre, Uppsala University Sweden.

○ **Institutional Linkages**

Centre has strong linkages with different learning institutions. Many students are doing their internship with a background of life science. The institutions are as under,

- Lahore College for Women University
- Kinnaird College for Women Lahore
- University of Veterinary and Animal Science, Lahore
- Allama Iqbal Medical College (AIMC)/Jinnah Hospital, Lahore
- Bahuddin Zakria University, Multan
- Shaheed Zulfiqar Ali Bhutto Medical University, PIMS Islamabad,
- Benevolent Trust Free Eye Hospital (LRBT), Lahore.
- Institute of Agricultural Sciences (IAGS), University of the Punjab, Lahore.
- Arid Agriculture University, Rawalpindi
- University of Agriculture, Faisalabad
- University of Lahore, Thokar Niaz Baig, Lahore
- Government College University, Lahore
- COMSAT Sahiwal Campus
- Institute of Biochemistry & Biotechnology IBB, UVAS, Lahore.
- Govt College Home Economics, Lahore.
- FC College University, Lahore.
- College of Earth and Environmental Science (CEES) University of Punjab
- Avicenna Medical College/Hospital, Lahore.
- Muhammad Ali Jinnah University, Islamabad
- The Islamia University, Bahawalpur.
- National Institute for Biotechnology and Genetic Engineering (NIBGE), Faisalabad
- Abdul Wali Khan University Mardan.



- International Center for Chemical and Biological Sciences, University of Karachi
- Government College University, Faisalabad
- Hazara University, Mansehra
- COMSAT Lahore Campus
- COMSAT University Islamabad

DEPARTMENT OF BOTANY

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○ **Undergraduate and Postgraduate Programmes**

The Institute of Botany was introduced the B.S. (4 year) degree program in Botany under the instructions of Higher Education Commission, Pakistan in 2005 and is spread over eight semesters. Each semester is of 18-weeks duration which includes 17 weeks for teaching and 1-week to conduct examinations. A minimum of 130 credit hours are required to obtain the above degree within 8 semesters duration. The Institute has an elaborate M.Sc. (Regular/Replica) Program for the external B.Sc. (2 year) students. The Institute is accommodating the B.Sc. (2 year) students from all over Pakistan since decades on merit and reserve seats and all the programs are being run under the semester system.

○ **MS and PhD Programmes**

The MS/M.Phil (Regular) Program is of 2-years duration (30 credit hours) spread over four semesters. The admission of these classes generally, made only in fall academic year. The program involves 24 credit hour course work and 6 credit hours thesis (Research work). The course work is completed during first two semester (12 credit hours/semester) and 6 credit hours research work spread over next 2 semesters. Following advertisement by the University, "Entry Test" is arranged by the Institute. A candidate must obtain 50% marks to qualify the entry test. Equal number of applicants are admitted for MS and M.Phil. Program on merit as per HEC guidelines. MS and M. Phil Self-Supporting (Evening) program has been also launched for the academic session 2017. All programs are run under Semester system. The Institute also runs the Ph.D. Regular and Non-regular (old scheme) programs.

○ **Academic Achievements**

Number of students passed out of BS and M. Sc Classes:

Program	Session	No. of students appeared	Passed out
BS (Regular)	2016-20	17	17
M.Sc. (Regular/Replica)	2018-20	86	85

Number of students completed their MS, MPhil and PhD during the said period: -

The following PhD students availed IRSP from HEC during this period:

Name of Scholar	Duration	No. of students appeared	Passed out
MS (Regular/Replica)	2018-20	45	45
M.Phil. (Regular/Replica)	2018-20	45	45
Ph.D.	Said Period	16	16



○ **Foreign Academic Linkages**

Prof. Dr. Firdaus-e-Bareen

- Dr. Janice Thies , Cornell University, Ithaca NY USA
- Prof. Dr. Sergio Capareda, Texas A & M University TX USA

Prof. Dr. Abdul Nasir Khalid

- Dr. Zhu Liang Yang, Professor, Kunming Institute of Botany, The Chinese Academy of Sciences Heilontan, Kunming 650204, Yunnan, China
- Thorsten Lumbsch, Vice President, Science and Education; Curator, The Field Museum (Lichenized Fungi), Director of the Integrative Research Center Chicago, United States
- Dr. M. Catherine Aime, Professor and Director of the Purdue Herbaria, Department of Botany and Plant Pathology, Purdue University, West Lafayette, Indiana, USA.
- Professor Donald H. Pfister, Asa Gray Professor of Systematic Botany, Curator of the Farlow Library and Herbarium, Department of Organismic and Evolutionary Biology, Harvard University, MA, USA.
- Donald H. Pfister, Department of Organismic and Evolutionary Biology, Harvard University, MA, USA

Dr. Aisha Nazir

- Cornell Waste Management Institute, Ithaca, NY, USA.
- Soil and Crop Sciences Section, School of Integrative Plant Science, Cornell University, NY, USA.

Dr. Muhammad Shafiq

- United States Composting Council, Raleigh, NC, USA.
- Cornell Waste Management Institute, Ithaca, NY, USA.
- Department of Natural Resources, Cornell University, Ithaca, NY, USA.
- Soil and Crop Sciences Section, School of Integrative Plant Science, Cornell University, NY, USA.
- Cornell Cooperative Extension of Tompkins County (CCE-Tompkins), Ithaca, NY, USA.
- United States Biochar Initiative, Portland, OR, USA.
- Advanced Algal Systems, The Bioenergy Technologies Office, Office of Energy Efficiency and Renewable Energy, US Energy Department, Washington DC, USA.
- International Rice Research Institute (IRRI), Los Banos, Philippines.
- Plant Biology Division, Department of Botany, University of Philippines, Los Banos, Phillipines.

DEPARTMENT OF MICROBIOLOGY & MOLECULAR GENETICS

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○ **Undergraduate and Postgraduate Programmes**

Number of students enrolled during the period BS and M.Sc

	Male	Female	Total
BS Session (2016-20)	03	33	36
BS Session (2017-21)	04	29	33
BS Session (2018-22)	04	38	42



BS Session (2019-23)	05	36	41
M.Sc (Session 2019-21)	04	27	31
M.Sc (Session 2018-20)	01	30	31
Total	214		

○ **MS/M.Phil & Ph.D Programmes**

Number of students enrolled during the period MS/M.Phil & Ph.D

	Male	Female	Total
MS Session (2019-21)	06	20	26
MS Spring Session (2018-20)	07	06	13
MS Fall Session (2018-20)	10	20	30
M.Phil Session (2019-21)	06	19	25
M.Phil Spring Session (2018-20)	01	12	13
M.Phil Fall Session (2018-20)	00	21	21
Ph.D (Session 2009)	00	01	01
Ph.D (Session 2011)	00	01	01
Ph.D (Session 2012)	00	01	01
Ph.D (Session 2013)	00	04	04
Ph.D (Session 2014)	04	03	07
Ph.D (Session 2015)	01	08	09
Ph.D (Session 2016)	04	06	10
Ph.D (Spring Session 2017)	00	03	03
Ph.D (Fall Session 2017)	03	10	13
Ph.D (Spring Session 2018)	03	07	10
Ph.D (Fall Session 2018)	00	07	07
Ph.D (Session 2019)	05	06	11
Total			205

○ **Academic Achievement**

- Number of students passed out during period BS and M.Sc

Class	Male	Female	Total
BS Session (2016-20)	03	33	36
M.Sc Session (2018-20)	01	30	31
Total			67

- Number of students passed out during period MS/M.Phil and Ph.D

Class	Male	Female	Total
MS Spring Session (2018-20)	07	06	13
MS Fall Session (2018-20)	10	20	30
M.Phil Spring Session (2018-20)	01	12	13
M.Phil Fall Session (2018-20)	00	21	21
Ph.D Notified (2020)	06	09	15
Total			92



○ **Foreign Academic Linkages**

- Research Collaboration between Bundesanstalt für Materialforschung und -prüfung and Department of Cancer Biology Lab - Microbiology and Molecular Genetics, Punjab University.
- Dr. Samreen Riaz Research Collaboration between Pakistan Academy of Family Physician of Pakistan (PAFP), International Diabetes Federation (IDF) and Department of Microbiology and Molecular Genetics, University of the Punjab, Lahore.

○ **Honours and awards**

- Fellowship for Renewed Research Stay by the Humboldt Foundation, 2021 (June-Aug).
- Receives a Rapid-Response Grants on Covid-19 from SSRC in collaboration with LUMS.
- 3rd Prize on RESEARCH WEEK & INNOVATION 2020: Bronze Medal to Dr. Saba Riaz. "Streptococcus Pneumoniae Vaccine Candidates Designed for Net Degradation Towards Development of Least Toxic, Immunogenic, Environmentally Safe and Cost Effective Streptococcus Pneumoniae Vaccine" Research and Innovation Week 2020 Organized by UMT and UniSZA, Malaysia. March 10-11, 2020.
- Dr. Samreen Riaz 1st Prize on Research Poster Presentation. Samreen Riaz, Abdullah Mohsin 2020. Samreen Riaz participated and presented posters on The JPAG pharmaceutical analysis research awards 2020. Molecular Level Linkage Of Diabetes Mellitus With Coronavirus In Pakistan. displayed at this virtual event on Tuesday 17th November, 2020.
- Dr. Warda Fatima won Best Poster Award & Cash Prize in International conference of Solid State Physics 2019, 8-11th Dec 2019
- Ms. Hera Naheed Khan won Best Poster Award & Cash Prize in International conference of Solid State Physics 2019, 8-11th Dec 2019

○ **Institutional Linkages**

International

- Dr Wayne Carter, Associate Professor, Faculty of Medicine & Health Sciences, Nottingham University, UK
- Dr. Elek Molnar, Professor of Neuroscience, International Director, Faculty of Life Sciences, School of Physiology, Pharmacology and Neuroscience, University of Bristol, UK
- Prof. Dr Peter Lindblad, Department of Chemistry Angstrom - Microbial Chemistry, Uppsala University, Sweden.
- Prof. Dr. Yuanda Song, Colin Ratledge Center for Microbial Lipids, School of Agriculture Engineering and Food Science, Shandong University of Technology, Zibo, Shandong, China

National

- The University of Lahore (UOL).
- University of Health Sciences, Lahore
- Department of Biosciences University of Technology Malaysia.
- The University of Lahore (UOL).
- University of Veterinary and Animal Sciences, Lahore.
- University of Health Sciences



- GC University, Lahore.
- FC College University, Lahore.
- Baluchistan University of Technology and Management Sciences (BUTEMS), Quetta.
- King Edward Medical College University, Lahore
- Allama Iqbal Medical College, Jinnah Hospital Lahore
- Citilab and Research Centre Lahore
- Comsats
- Shaikh Zayed Hospital, Lahore
- Familycon PAFP Lahore
- COMSATS University, Islamabad, Abbottabad Campus
- International diabetes Federation (IDF)
- Gulab Devi Chest Hospital Lahore
- Riphah Institute of Pharmaceutical Sciences, Riphah International University, Township, Lahore- Pakistan
- Lahore college for Women University, Lahore

DEPARTMENT OF SPORTS SCIENCES & PHYSICAL EDUCATION

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E-mail Address (s): chairman.sspe@pu.edu.pk

○ **Undergraduate and Post Graduate Programmes**

The BS (4 years) degree program in Physical Education was introduced in Pakistan in 2013 and spread over eight semesters. The department has an elaborate M.Sc Program for the external BA/BSc (2 years) students coming from various colleges. The department is accommodating the BA/BSc (2 Year) students from all over Pakistan on merit and reserve seats.

○ **MS and PhD Programmes**

The Department of Sports Sciences & Physical Education is offering degree of PhD Sport Sciences & Physical Education.

DEPARTMENT OF ZOOLOGY

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○ **Undergraduate and Postgraduate Programmes**

- B.S. (4-years) degree
- The department has an elaborate M.Sc. Program for the external B.Sc. (2 year) students coming from various colleges. The department is accommodating the B.Sc. (2 year) students from all over Pakistan since decades on merit and reserve seats.

○ **MS and PhD Programmes**

- MS/M.Phil
- Ph.D. degrees



○ **Academic Achievements**

The Department produced 11 Ph.Ds and 74 MS/M.Phil students Fall & Spring Sessions 2018-20

○ **Foreign Academic Linkages**

Dr. Javed Iqbal Qazi & Dr. Zulfiqar Ali

- Transnational Education INSPIRE Programme with UK
- Chinese Academy of Sciences Link with Institute of Mountain Hazards and Environment (IMHE)

Prof. Dr. Najma Shaheen

- Prof. Dr. Michael Hess., Clinic for Avian, Reptile and Fish Medicine, University of Veterinary Medicine, Vienna. Austria. michael.hess@vu-wien

Prof. Dr. Nadeem Sheikh

- Memorandum of understanding with Department of Internal Medicine, Division of Gastroenterology, Georg August University Goettingen Germany.
- Local Coordinator in Pakistan for EXPERTS II, Exchange academic visitors fellowship by Exchange by Promoting Quality Education, Research and Training in South and South-East Asia) the Georg-August University, Goettingen, Germany.
- Local Coordinator in Pakistan for EXPERTS III, Exchange academic visitors fellowship by Exchange by Promoting Quality Education, Research and Training in South and South-East Asia) the Georg-August University, Goettingen, Germany.

Dr. Abdul Majid Khan

Taught following courses, to BS, M.Sc. M.Phil & Ph.D classes

- Environmental Biology, Mammalogy, Advance Mammalogy Applied Fisheries,
- Supervision of following Ph.D, MS/M.Phil, M.Sc, & BS students:
- Ayesha Iqbal (2019: Thesis Submitted for Evaluation): Systematic Palaeontology and Palaeobiogeography of the Upper Siwalik Mammals of Pakistan
- Amtur Rafeh (2019: Thesis Submitted for Evaluation): Systematic and Biogeography of the Middle Miocene Siwalik Mammals of Pakistan.

MS/M.Phil

- Hassan Raza (2017-2019): Craniometrical Analysis of Extant Caprinae from the Punjab, Pakistan
- Farhan Abid (2017-2019): Comparative Craniometrical Analysis of Boselaphines from Northern Punjab, Pakistan.
- Hannan Abdul Khaliq (2016-2019): Stable Isotope Analysis of Carbon and Nitrogen for Evaluation of Ecosystem Stability of District Rawalpindi Using Biotic and Abiotic Components.
- Asad Iqbal (2017-2019): Single nucleotide polymorphism in tumor necrosis factor alpha (tnf- α) causing preeclampsia in Pakistani women.
- Mehwish Akram (2019): Descriptions Of Molars Of Doracbone Anthracotheroids From Late Miocene Siwaliks of Pakistan.



- Saima Ameer (2019): Systematic Investigation Of Hipparion From Dhok Pathan Formation, Jehlum, Punjab, Pakistan.
- Faqeer Hussain (2019): Craniometrical Analysis of Family Camelidae From Punjab, Pakistan

MSc./BS

- Roha Jabeen (2015-2019): Description of Lower Molars of Dorcabune nagrii from late Miocene Siwaliks of Pakistan
- Noreen Akhtar: (2017-2019): Correlation of Enamel Hypoplasia with the Environmental Stress in Family Bovidae.

○ **Honors and Awards**

Prof. Dr. Javed Iqbal Qazi

- Dr. Anam Javed has been awarded the degree of Doctor of Philosophy after approval of his thesis entitled “Efficacy of Azadirachta indica and Solanum nigrum for Skin Regeneration in Mice” in 2019.
- Dr. Syed Zulfiqar Ali Abidi has been awarded the degree of Doctor of Philosophy after approval of his thesis entitled “Replacement of conventional piscicide with indigenous plat material: isolation, purification and its effects on target and non-target fish” in 2019.
- Dr. Ishrat Perveen has been awarded the degree of Doctor of Philosophy after approval of his thesis entitled “Heterocyclic amines of cooked meats and their associated cancer risks in Pakistan” in 2019.
- Dr. Nafeesa Batool has been awarded the degree of Doctor of Philosophy after approval of his thesis entitled “Biogas production from food waste and its cyanobacterial purification to methane” in 2020.
- Dr. Hafiz Muhammad Abrar Awan has been awarded the degree of Doctor of Philosophy after approval of his thesis entitled “اردو تفاسیر میں مشاہداتی حیاتیاتی علوم کا جدید سائنسی آتشکافات کے تناظر میں تحقیق و تجزیہ” in 2020.

Prof. Dr. Asmatullah

- Awarded research incentive 2019
- Awarded Performance Evaluation in 2019

Prof. Dr. Nabila Roohi

- Incentive Award, University of the Punjab, 2019
- Performance Evaluation Award, University of the Punjab, 2019

Prof. Dr. Farah Rauf Shakoori

- Won Third prize (oral presentation) for “Search for eQTLs as indicators of regulatory variants in immune genes related to TB” at ICPU 2019 “Recent innovations in molecular sciences”, 6-8 November, 2019.
- Co-Chaired joint session II: Plenary Lecture at “3rd International Conference on Innovative Biological and Public Health Research” (IBPHR-2019) organized by Department of Zoology, GC University, Lahore. 13-14 November, 2019.
- Incentive award 2019 based on number of publications.



Dr. Nadeem Sheikh

Zoologist of Year Award 2019

Dr. Abdul Majid Khan

- Received **travel grant Rs-248,000/=** from the University of the Punjab, Lahore for presentation of research work at 2nd conference of Arabian Journal of Geosciences held at Hammamet, Tunisia, from 22-25 Nov, 2019
- **Co-Chaired** the 39th International Pakistan congress of Zoology from 2-5 March, 2019. **Participated** with oral presentation in 39th International Pakistan congress of Zoology at from 2-5 March, 2019.

Dr. Muhammad Akbar Khan

- 12 Oct. 2020 – Oral presentation certificate at the 80th Virtual Annual Meeting of the Society of Vertebrate Paleontology from 11-17, 2020.
- March 4, 2020 – Oral presentation certificate at the 13th International Geological Conference, in Jeddah, Saudi Arabia.
- November 5, 2020 – Contribution certificate, 3rd Conference of the Arabian Journal of Geosciences (CAJG), Springer Nature.
- Award of Performance based on increment + honorarium
- Certificate of excellence for the establishment of Dr. Abu Bakr Fossil Display & Research Centre, Zoology Department, University of the Punjab, Lahore

Dr. Bushra Nisar Khan

Incentive Award 2019

○ **Institutional Linkages**

Prof. Dr. Javed Iqbal Qazi

- PCSIR Laboratories, Lahore
- Punjab Fisheries & Wildlife Department
- Regarding the research collaboration, external examination and publications, the department has developed strong linkages with other institution in the country such as NIBGE, PCSIR, INMOL, Shaikat Khanum and P.S.F.

Prof. Dr. Nabila Roohi

- Prof. Dr. Janet L. Stein, Department of Biochemistry, University of Vermont, Vermont. USA.
- Prof. Dr. Andre van Wijnen Department of Orthopedic Surgery & Biochemistry& Molecular Biology Mayo Clinic Florida USA.
- Institute of Nuclear Medicine and Oncology, Lahore (INMOL)
- University of Veterinary and Animal Sciences (UVAS), Lahore Campus
- University of Veterinary and Animal Sciences (UVAS), Pattoki Campus

Prof. Dr. Nadeem Sheikh

- Collaboration with the University of Lahore for research project.
- Collaboration with Institute of Nuclear Medicine and Oncology Lahore.



- Collaboration with LCWU, Lahore
- Collaboration with PCSIR laboratories Lahore.
- Collaboration with Comsats University, Lahore.

Prof. Dr. Najma Shaheen

- University of Veterinary & Animal Sciences, Lahore
- Lahore College for Women University Lahore
- Government College University Lahore
- University of Education Lahore

Prof. Dr. Farah Rauf Shakoori

- Collaboration with school of Biological Science Sciences University of the Punjab Lahore.
- Collaboration with Government College University Lahore.
- Collaboration with Lahore College for women University Lahore.

Dr. Zulfiqar Ali

- Department of Microbiology and Molecular Genetics PU, Lahore
- Lahore Zoo

Dr. Abdul Majid Khan

- COMSATS Islamabad
- Bio-resource Research Centre Islamabad
- UVAS, Bahawalpur, Pakistan

Dr. Muhammad Akbar Khan

- Dr. George Iliopoulos (University of Patras, Greece) for 'Erasmus + International Credit Mobility KA 107'.
- Dr. Lawrence John Flynn (Peabody Museum of Archaeology and Ethnology. Harvard University, Cambridge, MA 02138, USA).
- Dr. Abdul Ghaffar (Department of Meteorology, COMSATS Institute of Information Technology, Islamabad, Pakistan).
- Dr. Zaheer Ahmad (Department of Zoology, GC University Faisalabad, Pakistan).
- Dr. Arifa Batool (Wildlife & Fisheries and Zoology Department, GC University Faisalabad).

Dr. Bushra Nisar Khan

- Co-supervise the Research thesis of M.Sc. BS (Hon), MS, M.Phil (Zoology, Environment, Wildlife, & Ecology) of following organizations.
- Lahore College for Women University
- Kinnaird College for Women
- University of Veterinary & Animal Sciences Lahore
- University of the Lahore
- Govt. Postgraduate College for Women samanabad, Lahore



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○ **Undergraduate and Postgraduate Programmes**

B.Sc. (Hons.)

Majors: Plant Pathology, Horticulture, Food Technology, Entomology and Agronomy

○ **MS and PhD Programmes**

▪ M.Sc. (Hons.)

Majors: Plant Pathology, Food Technology, Horticulture and Entomology

▪ Ph.D. Agricultural Sciences

○ **Academic Achievements**

- Imparting quality education and development of culture for advanced research are the primary foci of the Institute of Agricultural Sciences (IAGS). Four regular batches of BS (Hons.), four of M.Sc. (Hons.), and eight of Ph.D. are in progress. During the report period 166 students to BS (Hons.) and 120 to M.Sc. (Hons.) program were admitted. Since the establishment of the institute, eleven batches of BS (Hons.) 4-year program and eleven batches of M.Sc. (Hons.) programs have passed out. In the area of teaching, attention is being focused on concept building. This goal is achieved by observing the curriculum developed by HEC to meet the national needs. Quality enhancement is addressed on the guideline proposed by HEC and PU faculty assessment criteria. The guidelines are based on credit hour allocation, infrastructure development, student-teacher relationship and involvement of parents in class performance of students. The Module understandings accelerated by utilizing the tools of teaching, tutorials, quizzes and presentations are regular features. Research activities are of academic, applied and adaptive nature. Research projects assigned to Ph.D. students are oriented to cover these aspects. Faculty members have won several research projects with funding from Punjab University and other well reputed local and international organizations. The Institute is also playing a vital role in human resource development in education and farm resource capacity enhancement.
- The institute is playing a significant role in dissemination of scientific information by publishing a biannual scientific journal "*Mycopath*" and a quarterly newsletter '*Agricultural News*'. Seminars, invited lectures from nationally and internationally reputed scientists are regular features of the activities. To inculcate healthy activity of mind and spirit students are involved in various academic & extracurricular committees, and are strongly encouraged to join scientific societies.
- During this period 3598 books, 15 research journals, 10 newsletters, 773 reports and 352 theses were added in the library of the institute. The First Fungal Culture Bank of Pakistan has isolated, purified and conserved 72 fungal and 50 bacterial species that were added to conservatory during the report period. Herbal Heritage Centre after standardizing techniques of *Aloe vera* gel and essential oils production at lab scale has acquired locally fabricated pilot plants for commercial production of both.



○ **Foreign Academic Linkages**

- Punjab University - PARB – University of Toronto, Canada
- Punjab University - ICARDA – USDA, University of Arizona, USA
- Azher Hameed Al-Taie - College of Agriculture, University of Wasit, Iraq (collaborative papers).
- Saida Messgo-Moumene - Laboratory for Research on Medicinal and Aromatic Plants, Science and Life Faculty, University of Blida1, Blida, Algeria (collaborative papers).
- Punjab University and Wuhan University China
- Punjab University - LCWU
- Punjab University - ENGRO CHEMICALS PVT. LTD
- Punjab University - Texas A&M University USA

Local Academic Linkages

- Institute of Chemistry, University of the Punjab Lahore.
- Department of Botany, Lahore College for Women University Lahore.
- Department of Environmental Sciences, Lahore College for Women University Lahore.
- Department of Chemistry, GC University Lahore.
- Department of Chemistry, FC College University Lahore.
- Department of Botany, University of Gujrat

○ **Honours and Awards**

Dr. M. Saleem Haider, Professor & 'Director

Performance award received in 2019 from the University of the Punjab.

Dr. Tehmina Anjum, Professor

Incentive award for the year 2020

Dr. Arshad Javaid, Associate Professor:

Performance Based Increment and Honorarium 2019.

Dr. Muhammad Nasir Subhani, Associate Professor

Performance award received in 2018 from the University of the Punjab.

Performance award received in 2019 from the University of the Punjab.

Dr. Muhammad Ashfaq, Assistant Professor

- Awarded performance based increment in 2019.
- Awarded honorarium in the year 2019

Dr. Muhammad Bilal Chattha, Assistant Professor

Awarded Performance base increment and Honorarium in 2019

Dr. Shinawar Waseem Ali, Assistant Professor

- Performance based increment received for the year 2019
- Awarded by Full Sponsorship through Malaysian Technical Cooperation Program (MTCP) to attend "39th Palm Oil Familiarisation Programme (POFP 2019)", 22-28 September 2019, held at Putrajaya, Malaysia



Dr. Shahbaz Ahmad, Assistant Professor

- Performance base increment award from the University of the Punjab
- Annual base increment award from the University of the Punjab
- Honorarium award received in from the University of the Punjab

Dr. Hafiz Azhar Ali Khan, Assistant Professor

- Best Research Paper Award by the Higher Education Commission, Pakistan
- Incentive Award on Research Publications by Punjab University, Lahore

Dr. Muhammad Safiq, Assistant Professor

President Pakistan Society for Horticultural Sciences 2019-2020

○ **Institutional Linkages**

The Institute of Agricultural Sciences has linkages with the following institutions and BS (Hons.) students are sent every year to these institutions for their internship program:

- Pakistan Council for Scientific & Industrial Research (PCSIR) Ferozepur Road, Lahore.
- Center of Excellence in Molecular Biology, Punjab University, Lahore.
- Parks & Horticulture Authority, Lahore
- School of Biological Sciences, Punjab University, Lahore
- FBRC, PCSIR, Lahore
- Federal Seed Certification and registration department (FSCRD)
- Soil Fertility Lab., Thokar Niaz Baig, Lahore
- Land Reclamation Department, Lahore
- Cotton Research Institute, Vehari
- Cotton Research Institute, Multan
- Central Cotton Research Institute, Multan
- M/s Four Brothers, Lahore
- M/s Auriga Chemicals, Lahore
- Agricultural Engineering Workshop, Thokar Niaz, Baig, Lahore
- Punjab Ecotoxicology Lab., Kala Shah Kaku, Lahore
- Rice Research Institute, Kala Shah Kaku, Lahore
- NARC, Islamabad
- Adaptive Research Farm, Sheikhpura
- Adaptive Research Farm, Gujranwala
- Soil Salinity Research Institute (SSRI) Pindi Bhatian
- PARC, Islamabad
- College of earth and environmental sciences, University of the Punjab, Lahore
- Pakistan Council for Scientific and Industrial Research
- School of Biological Sciences, University of the Punjab
- University of Veterinary and Animal Sciences, Lahore.
- Pakistan Council for Scientific and Industrial Research
- School of Biological Sciences, University of the Punjab



- University of Veterinary and Animal Sciences, Lahore.
- Engro Foods (Pvt) Ltd. Sahiwal
- Innovative Biscuits (Pvt) Ltd. Lahore
- JB Foods (Pvt) Ltd. Lahore
- Metro-Habib Cash & Carry, Lahore
- Premier Dairies (Pvt) Ltd. Lahore
- Qarshi Industries (Pvt) Ltd. Hattar, Harripur.
- Rafhan Maize Products (Pvt) Ltd. Faisalabad
- Asian Foods (Mayfair) Pvt Ltd. Lahore
- Bunny's (Pvt) Ltd. Lahore
- Cakes and Bakes (Pvt) Ltd. Lahore
- Dawn bread (Pvt) Ltd. Lahore
- United Snacks (Pvt) Ltd. Lahore
- Mitchell's Fruit Farms, Renalla Khurd, District Okara
- Nestle Pakistan, Sheikhpura
- PEPSI Cola (Pvt) Ltd. Lahore
- Coca Cola Beverage Pakistan, Lahore
- Pakistan Standards and Quality Control Authority (PSQCA)
- Veterinary Research Institute Lahore
- Nuclear Institute for Agriculture and Biology, Faisal Abad.
- Directorate of pest Warning and Quality Control of Pesticides, Punjab
- Citrus Research Institute Sargodha
- Parks & Horticulture Authority, Lahore
- Computational Boilogy group Schoool of Sciences and engineering LUMS Lahore
- Training international Lahore

INSTITUTE OF APPLIED PSYCHOLOGY

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○ **Undergraduate and Postgraduate Programs**

Currently Institute of Applied Psychology is running two Undergraduate BS (4-Years) Applied Psychology (Morning and Replica) Programs and two Postgraduate M.Sc Applied Psychology (Morning and Replica) Programs. Admissions of these programs are held annually during the month of September/October (as per University schedule). There are 40 seats for BS (4-Years) Morning program, 38 seats for BS (4-Years) Replica program, 50 seats each in M.Sc. Morning and Replica Programs. These programs are being run under semester system.

○ **MS and PhD Programs**

Institute is also offering full time M.Phil Applied Psychology, MS Health Psychology and Ph.D Applied Psychology Programs. There are 20 seats each for M.Phil Applied Psychology, 10 seats for MS Health Psychology and 10 for Ph.D Applied Psychology Programs.



○ Academic Achievements

Institute of Applied Psychology has always been an ardent facilitator in providing its students with the opportunities for arranging academic and co-curricular activities which enhance their personal and professional skills. The conference, workshop, seminar, special lecture were conducted to provide ample opportunities to its students to gain practical knowledge and management experience.

Alumnus Prof. Dr. A. H. Alawi Gold Medal & Scholarship Ceremony

Institute of Applied Psychology Orchestrated Alumnus Prof. Dr. A. H. Alawi Gold Medal & Scholarship Ceremony on 24th November 2019. Mrs. Azra Qureshi, daughter of Prof. Dr. Alawi rendered a Gold Medal in the name of her beloved father to the Punjab University for the 1st position holder of MSc Regular program. She has also given two Merit Scholarships for the first and second position holder for MSc part I through Human Development Fund established by her.

Also, two other scholarships have been rendered by the son of Dr. Bilal Sufi: the eminent psychologist and ex-president Pakistan Psychological Association. Essence of Professor Alawi was enlivened through a memorial video. Prof. Dr. Rafia Hassan, a legendary Psychologist presided the ceremony and shared her views.

Seminar/Workshops

- Realizing the massive spread in breast cancer among women in Pakistan, an awareness training session based program was arranged for female students and faculty of The University of the Punjab, Lahore under the kind mentorship of Dr. Rafia Rafique in liaison with Academic Staff Association. The insightful lecture helped in unraveling the intriguing queries, lying with female community pertaining breast cancer thus highlighting the due need to adopt preventive approach and timely addressal of the disease with earliest detection strategies. Worthy Madam Perveen Sarwar, eminent philanthropist graced the occasion.
- Students attended Seminar on “Breast Cancer Awareness” conducted by District Health Authority, Lahore. (October, 2019).
- Workshop on “Smoking Cessation” by Dr. Arshad Mahmood, eminent Clinical Psychologists from Canada at Fountain House Lahore November, 2019).
- Seminar entitled “Emerging perspectives in Health Psychology” by Dr. Naumana Amjad, (November, 2019) Seminar on “Mediation and Moderation in Health Psychology Research” by Mr. Ghulam Ishaq (Ph.D Scholar) (December, 2019).
- Students attended “15th National Muslim Psychological Conference” organized by the Institute of Applied Psychology at Fountain House Lahore (December, 2019) in collaboration with Society for Advancement of Muslim.
- Interactive Seminar on “Artificial Intelligence in Health Care” by Mr. Awais Bajwa (GE Corporate) organized by IAP, Punjab University (January, 2020).
- Workshop entitled “Counseling in the domain of Health Psychology” by Dr. Muhammad Shoaib Shahid (February, 2020).



Covid-19 Mental Health Help Line

The COVID-19 Mental Health Help Line is a national helpline set up by the Institute of Applied Psychology, University of the Punjab, Lahore during the wake of coronavirus crisis in 2020. The volunteer psychologists are providing free and confidential mental health support to people in emotional distress 7 days a week. Institute of Applied Psychology is committed to address the mental health issues due to COVID-19. Coronavirus and lock down poses a range of challenges for individuals and families. The situation is stressful for everyone and it is normal to be anxious and worried. This helpline is providing information and suggestions about how to cope in this difficult time. The mental health helpline volunteers cater for psychological needs related to coronavirus like corona anxiety, stress, depression, time management, marital discords etc. People who are experiencing a mental health crisis and cannot find mental health professional volunteers of IAP will refer you to respective mental health professionals after doing the initial screening.

- Institute of Applied Psychology, arranged a virtual conference on “Designing Protocol for Volunteers of Mental Health Helpline in Wake of Corona Virus”.
- Institute of Applied Psychology, arranged a virtual conference on “Designing protocol for volunteers of mental Health helpline in wake of Corona virus”.

COVID Free Pakistan Social Media Campaign

Latest addition to the IAP inventory is the launch of the 'COVID free Pakistan' campaign. As we saw, Covid-19 positive cases kept on increasing in Pakistan, but despite the surge, people were not following the SOP's the way this critical situation demands. Reality is, no government and no lockdown can protect people from the pandemic unless people themselves understand the situation and follow SOPs. People need to take care of themselves and others by adhering to the SOPs because of the unique nature of the spread of this virus. So, to address the non-adherence of SOPs by the masses, IAP launched the “COVID free Pakistan” campaign to spread awareness among the people. First part of this campaign was to educate people on how important it is to wear face masks. Faculty and students of IAP sent their photos wearing masks so that the message is distinctly conveyed that masks are important for the safety of people and their loved ones. In the next stage children from all over Pakistan sent us their photos, wearing masks and with different slogans conveying the most important message, i.e., to take safety measures and follow SOPs, for safety and the wellbeing. These contributions and valuable messages were compiled in the form of videos and spread on different social media platforms. This campaign is still in progress and we are taking new steps to further increase the extent of the awareness campaign day by day.

One Minute Video Series

Covid-19 followed by countrywide lockdown was an unprecedented crisis no one was prepared for. Being housebound for an indefinite period with no social interactions in sight was a naturally anxiety-inducing situation while to worsen it up is the looming fear of contracting the virus. In such stressful situations, having negative thoughts or getting depressed or anxious is normal; whereas to help people manage the stressful situation, Director Institute Applied Psychology Dr. Rafia Rafique started a series of one-minute video message to boost wellbeing, instantly after the lockdown.



In this series, Dr Rafia regularly shared tips on how to stay positive and happy amongst all the negativity and stressful life situations. The tips were highly effective in keeping up the spirits of the students and followers whereas the short time-duration (i-e one minute) instantly grabbed the viewers' interest while effectively delivering the message.

In her videos, Dr. Rafia asserted on the fact that we are only physically distant but virtually connected. She suggests taking regular breaks from the internet and pandemic news to avoid stress and make practical use of positive coping statements to deal with pandemic-induced anxiety. Along with the tips surrounding immunity-boosting, she recommended to go down the memory lane and find the warmth and happiness in the old family album.

Apart from the general public, Dr. Rafia shared specific tips for parents to keep the kids in good mental health. She advised parents to relax and be happy themselves as children catch their parents' emotions. Moreover, she suggested parents to stop being over-protective and talk to their children about their fears and worries as talking can have a therapeutic effect. To cheer up the children she put forward amazing tips like fun cooking with kids, in-house picnic, and movie night. The parenting tips are quite dynamic and can be generally applied post-pandemic as well. Elderly people are the most vulnerable population in this pandemic and taking care of them is equally challenging. Dr. Rafia put forward some amazing tips to relieve mental stress and strain of the elderly parents, she recommended playing Surah Al-Rehman for psychological relief and to boost mood. She stressed the importance of spending time with the elders at home, how to engage in conversation with them, and how not to leave them alone especially during a pandemic.

Doctors and paramedics are the frontline workers in this war against pandemic; similarly, they are at the frontline when it comes to pandemic-related stress, anxiety, and depression. Dr. Rafia addressed their unique mental health problems and shared tips for their stress-management in a separate series. She stressed on the importance of time auditing and how essential it is for them to take 15 minutes off after duty hours to calm down their stressed selves and prevent them from taking the strain to their family members. To relax she recommended them doing deep breathing and live in here and now to save them from getting stressed out.

Her enlightening series didn't end and she keeps on sharing stress-management tips for specified populations like housewives, students, and according to specific occasions like Ramadan and Eid. In all of the videos, the take-home message for viewers is to "Think Positive, Be Optimistic and Stay Happy!"

○ **Foreign Academic Linkages**

The Institute has foreign academic linkage with:

- Department of Psychiatry, Michigan State University, USA.
- St. Andrew's University, Scotland, UK.
- International Council of Professional Therapists (UK).
- Children and War Foundation, Bergen, Norway.



○ **Honors and Awards**

- The Institute has linkages with different external bodies in order to share resources and provide practical training and placements to its graduating students:
 - Child Protection and Welfare Bureau, Lahore
 - Services Hospital, Lahore
 - Mayo Hospital, Lahore
 - Ganga Ram Hospital, Lahore
 - Surgical Unit-II, Jinnah Hospital, Lahore
 - Fountain House, Lahore
 - Punjab Institute of Mental Health, Lahore
 - National Society For Mentally And Emotionally, Handicapped Children Lahore
 - Shaikh Zayed Hospital, Lahore.

○ **Institutional Linkages**

The Institute has linkages with different external bodies in order to share resources and provide practical training and placements to its graduating students.

- Child Protection and Welfare Bureau, Lahore
- Services Hospital, Lahore
- Mayo Hospital, Lahore
- Ganga Ram Hospital, Lahore
- Surgical Unit-II, Jinnah Hospital, Lahore
- Fountain House, Lahore
- Punjab Institute of Mental Health, Lahore
- National Society For Mentally And Emotionally, Handicapped Children Lahore
- Shaikh Zayed Hospital, Lahore.

INSTITUTE OF BIOCHEMISTRY & BIOTECHNOLOGY

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○ **Undergraduate and Postgraduate Programs**

The Institute is offering 4 years BS, 2 years M. Sc., 2 years MS/M.Phil. and 3-5 years PhD degrees in the subjects of Biochemistry and Biotechnology at the undergraduate and postgraduate levels. During the academic session 2019-20, 82 students were admitted in BS, 42 in M.Sc. and 40 in MS Biochemistry/MS Biotechnology degree programs of the Institute. Overall strength of the enrolled students was around 450.

○ **Academic Achievements**

The Institute has qualified and committed team of faculty members – two Professors, two Associate Professors, ten Assistant Professors, and three Lecturers. In order to strengthen and expand the institutional research capacity and teaching standards, the academic linkages with foreign universities and local industry are in process. During the Academic Session 2018-19, more than 5000 candidates applied for admission in various disciplines offered at the Institute against 150 available seats reflecting the importance of



emerging fields of biotechnology, genomics, transcriptomics, proteomics, metabolomics, system biology, etc. The Institute enjoys a high reputation amongst the scientific and research organizations of the country and is striving to rise up the standards through internationalization. During the Academic Session 2019-20, 6 PhD students completed their research for the award of degrees in PhD Biochemistry and PhD Biotechnology.

SCHOOL OF BIOLOGICAL SCIENCES

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○ **MS and Ph.D. Programmes**

Presently, 88 research scholars (25 MPhil and 63 Ph.D.) are working in the School for their MPhil. and Ph.D. degrees. Most of the students admitted in 2015-16 have obtained their Ph.D. degrees. Remaining students of this batch are fairly advanced in their research projects and are in different stages of compiling their data, write up of thesis and giving final touches to their research work. The 2017-18 scholars are fairly advanced in their research projects and are making satisfactory progress. The 2019-20 batch have completed their prescribed course work and are in their initial stages of planning experiments and running pilot experiments. The Ph.D. students of the School have undertaken their mandatory Semester and Comprehensive Examinations, which they have passed with excellent scores.

○ **Academic achievements**

Patent

- Truncation and CBM engineering of CelZ.C of *Thermotoga* Sp. for improved biomass degradation (M. Waheed Akhtar, Saima Sadaf, Abdul Basit)
- A polynucleotide comprising a nucleotide sequence encoding a fusion protein
- (M. Waheed Akhtar, Ruqyya Khalid, Madeeha Afzal and Sana Khurshid)
- A non-naturally occurring enzyme comprising a nucleic acid sequence homologous with endoglucanase of *Clostridium* Specie (M. Waheed Akhtar, Saima Sadaf, Shahzad Ali)

○ **Foreign Academic Linkages**

Name of Researcher/ Sponsoring Agency	Title of research project with duration	Collaborating scientist/institution	Joint objectives
Prof.Dr. Naeem Rashid		Prof. Tadayuki Imanak, Ritsumei Kikan University Shuga Prof. Hoorayuki Atomi, Kyoto University, Kyoto Prof. Masaki Morikawe, Hokkaido University, Hokkaido, Japan. Dr. Osman Mirza, University of Copenhagen, Denmark Prof. Raja Noor Zahia, University Putra, Malaysia Prof. Ziao-Feng Tang, Wuhan University, China	
Prof. Dr. Abdul Rauf Shakoori		University of Vermont Medical Center Vermont, USA	



Prof. Dr. Waheed Akhtar		Center for Comparative Medicine, School of Medicine, University of California, Davis, USA	
Prof. Dr. Sadaf Naz Deutsche Forschungsgemeinschaft, Germany, LO 1555/8-1,	Molecular characterization of complex movement disorders with predominant dystonic features in consanguineous families. 2015-2018	Deutsche Forschungsgemeinschaft, Germany	
Prof. Dr. Sadaf Naz psych \$4100, University of Minnesota, USA	Molecular characterization of Psychotic disorders in Pakistan. 2016-2017	University of Minnesota, USA	
Prof. Dr. Sadaf Naz		National Institutes of Health, USA Johns Hopkins University, USA University of Minnesota, USA University College London, UK University of Helsinki/Karolinska Institute (Finland/Sweden) University of Luebeck, Germany	
Prof. Moazur Rahman		Professor Samar Hasnain, Molecular Biophysics group, Department of Life Sciences, University of Liverpool, Liverpool, UK. Dr. Osman Mirza, Associate Professor, Department of Drug Design and Pharmacology, Faculty of Health and Medical Sciences, University of Copenhagen Universitetsparken 2, DK-2100 Denmark Dr. Farhid Hemmatzadeh, School of Animal and Veterinary Sciences, Roseworthy Campus, The University of Adelaide, Australia Dr. Paola Storici, Head Protein Facility, Structural Biology Lab, Elettra Synchrotron facility, Italy. Dr. Silvia Onesti, Head Department of Structural Biology, Elettra Synchrotron facility, Italy. Professor Thomas Walz, Laboratory of Electron Microscopy, Rockefeller University, NY, USA. Dr. Mohammed Yousef, Assistant Professor, South Illinois University, Edwardsville, Illinois, USA. Synchrotron-light for experimental science and applications in the Middle-East Facility, Jordan	



Dr Qurra-tul-Ann Afza Gardner	1. Studies on biopharmaceuticals; Insulin and Interferon 2. Rapid identification of microorganisms by MALDI Biotyping 3. Glycomics and glycoproteomics (All are on-going)	Prof Dr Muhammad Akhtar FRS; University of Southampton, UK	Analysis of protein modification by mass spectrometry
	Studies on fibrils and their role in autoimmune disorders and Alzheimer (on-going)	Dr PT Williamson; University of Southampton, UK	Elucidation of fibril structures
	Studies on fibrils and their role in autoimmune disorders and Alzheimer (on-going)	Prof. Steve. P. Wood; University College London, UK	Elucidation of fibril structures
	MALDI Biotyping of clinically important microorganisms	Dr Faisal Sultan (CEO) Dr Summiya Nizamuddin (Consultant Microbiologist); Shaukat Khanum Memorial Cancer Hospital	Rapid Identification of microorganisms and its application in clinical microbiology
	Application of MALDI MS in Glycomics and Glycoproteomics	Prof Dr Najam-ul-Haq; Bahauddin Zakariya University, Multan	
	Mass spectrometric identification of Scorpion venoms and their applications	Dr M. Hafiz Tahir; GC University Lahore	
Dr. Mehwish Aslam		Dr. Tamotsu Kanai Laboratory of Biochemical Engineering, Synthetic Chemistry and Biological Chemistry Graduate School of Engineering, Kyoto University, Kyoto	
		Prof. Haruyuki Atomi Professor Laboratory of Biochemical Engineering, Synthetic Chemistry and Biological Chemistry Graduate School of Engineering, Kyoto University, Kyoto	
Dr. Uzma Qaisar		Prof. Dr. Abdul Hamood, Texas Tech University, Lubbock, TX, USA	



Dr.Asima Tayyeb		Department of Nephrology and Rheumatology, University of Goettingen, Germany Department of Zoology, University of the Punjab Solid State Physics, University of the Punjab College of Metallurgy, University of the Punjab Institute of Molecular Biology and Biotechnology, University of Lahore CEMB, University of the Punjab Department of Zoology, Lahore College for Women University Lahore	
Dr Muhammad Farhan UI Haque		Prof Colin Murrell, Director Earth Life System Alliance, University of East Anglia, UK Prof Jeremy D Semrau, University of Michigan, USA Prof Stephane Vuilleumier, University of Strasbourg, France Andrew T Crombie, School of Environmental Sciences, University of East Anglia, UK Laura Lehtovirta-Morley, School of Biological Sciences, University of East Anglia, UK Gemma C Langridge, Quadram Institute, UK	

○ **Institutional Linkages**

Developed linkages with KEMU (King Edward Medical University) and signed MOU

CENTRE FOR APPLIED MOLECULAR BIOLOGY

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E-mail Address (s): director.camb@pu.edu.pk

○ **MS and PhD Programmes**

CAMB has offered Ph.D programme in Molecular Biology & Forensic Sciences

○ **Academic Achievements**

28 M.Phil students have completed their M.Phil and 28 Ph.D students in course work and/or research

○ **Honours and Awards**

12 (Research Incentive Awards)

○ **Institutional Linkages**

CAMB always gives importance to develop linkages with other public and private institutions of the country. The centre is providing research platform to the students of various universities/ organizations including

- i. University of Agriculture, Faisalabad.
- ii. Govt. College University, Lahore



- iii. Bahauddin Zakariya University, Multan
- iv. University of Veterinary and Animal Sciences, Lahore
- v. Govt. College for Women, Gulberg, Lahore
- vi. King Edward Medical University, Lahore
- vii. Institute of Child Health, Children Hospital, Lahore etc.
- viii. Lahore University of Management Sciences (LUMS)
- ix. University of Health Sciences, Lahore

Faculty of Health Sciences

FACULTY OF HEALTH SCIENCES

Telephone (s): 042-99232130

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○ **Undergraduate and Postgraduate Programmes**

Program Title	Duration
Medical Lab Technology	B.Sc. (Hons.) 4- year
Medical Imaging Technology	B.Sc. (Hons.) 4- year
Doctor of Physiotherapy	DPT (5-year)
Cardiac Perfusion Technology	B.Sc. (Hons.) 4- year
Optometry	B.Sc. (Hons.) 4- year
Operation Theater Technology	B.Sc. (Hons.) 4- year
Dental Technology	B.Sc. (Hons.) 4- year
Anesthesia Technology	B.Sc. (Hons.) 4- year

Faculty of Oriental Learning

DEPARTMENT OF ARABIC

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○ **Undergraduate and Postgraduate Programmes**

Diploma in Arabic & M.A. Arabic programs are running in Arabic Department.

○ **MS and PhD Programmes**

M. Phil. and Ph. D. Arabic programs are running in Arabic Department.

○ **Academic Achievements**

Two M. A. students got 1st positions in M. A. Arabic Part I, II and M.A. Arabic P-II Twelve students did their research work and wrote M.A. theses. Seventeen M. Phil. Arabic students completed their research work and have been awarded degrees. Three Ph. D. Arabic students completed their research work and has been awarded degrees.



DEPARTMENT OF HINDI

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Academic Program: Diploma in Hindi Language (1year/ 2 semester)

DEPARTMENT OF KASHMIRYAT

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E-mail Address (s): chairman.dks@pu.edu.pk

○ **Undergraduate and Postgraduate Programmes**

- M.A Kashmiryat
- M.Phil Kashmiryat
- Ph.D Kashmiryat
- Diploma in Kashmiri Language

○ **Foreign Academic Linkages**

Department has Academic Collaboration and students exchange programs with under given Higher Education Organization.

- University of Srinagar, Jammu & Kashmir (Indian Held)
- Azad Jammu & Kashmir University, Muzaffarabad.
- Baba Badshah University Rajouri Jammu Kashmir. (Indian Held)

○ **Institutional Linkages**

At National Level

- Azad Jammu & Kashmir University, Muzaffarabad.
- Kashmir Centre, Lahore.

At International Level

- University of Srinagar, Jammu & Kashmir (Indian Held)
- Jammu & Kashmir, Cultural Academy, Srinagar. (Indian Held)
- Baba Badshah University Rajouri Jammu Kashmir. (Indian Held)

Exchanges and Resources Sharing Program/Forum of Resources Sharing

- Jammu & Kashmir, Cultural Academy, Srinagar. (Indian Held)
- University of Srinagar, Jammu & Kashmir (Indian Held) (Indian Held)
- Baba Badshah University Rajouri Jammu Kashmir. (Indian Held)

DEPARTMENT OF PERSIAN

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○ **Undergraduate and Postgraduate Programs**

- 46 students are admitted in M.A Persian Part-I for the Year 2019
- 22 students are admitted in M.A Persian Part-I for the Year 2020



- **MS and Ph.D Programs**
 - 20 students are admitted in M.Phil Persian (Fall Session) in 2019
 - 07 students are admitted in M.Phil Persian (Fall Session) in 2020
- **Academic Achievements**
 - The Department of Persian has organized Refresher Course for Teachers of Various Govt. Colleges (Male/Female) and the students of M.Phil/Ph.d, in which taught Faculty of Persian Department, Ex-Senior Professors and Iranian Teachers as well.
 - The Department of Persian has organized a Workshop on Manuscripts at PU Main Library for Teachers of Various Govt. Colleges (Male/Female) and the students of M.Phil/Ph. D.
- **Foreign Academic Linkages**

Department has Academic Collaboration and Teacher students exchange programs with under given Higher Education Organization.

 - Firdousi University, Mash, had, Iran
 - Tehran University Tehran, Iran
 - Tarbiat-e-Mударis University Tehran, Iran
 - Centre of the Written Heritage, Tehran, Iran
 - Persian Language Authority Tehran, Iran
 - University of Payam e Noor, Iran
 - Tajiksitan National University, Tajiksitan
 - Imam Khomai International University, Qazvin, Iran
- **Institutional Linkages**
 - *At National Level*
 - Iran Pakistan Institute of Persian Studies, Islamabad
 - Cultural Centre of Islamic Republic of Iran, Lahore
 - Department of Iqbal Studies, University of the Punjab, Lahore
 - Markaz e Majalis e Iqbal, Awan e Iqbal Authority, Lahore.
 - *At International Level*
 - Firdousi University, Mash, had, Iran
 - Tehran University Tehran, Iran
 - Tarbiat-e-Mударis University Tehran, Iran
 - Centre of the Written Heritage, Tehran, Iran
 - Persian Language Authority Tehran, Iran
 - University of Payam e Noor, Iran
 - Tajiksitan National University, Tajiksitan
 - *Exchanges and Resources Sharing Program/Forum of Resources Sharing*
 - Ministry of Cultural and Higher Education, Tehran, Iran
 - Firdousi University, Mash, had, Iran



- Tehran University Tehran, Iran
- Tarbiat-e-Mударis University Tehran, Iran
- Centre of the Written Heritage, Tehran, Iran
- Persian Language Authority Tehran, Iran

DEPARTMENT OF URDU

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E-mail Address (s): chairman.urdu@pu.edu.pk

○ **Undergraduate and Postgraduate Programmes**

68 students are admitted in M.A Urdu Part-I for the Year 2019

○ **MS and PhD Programmes**

34 students are admitted in M.Phil Urdu in 2019

○ **Academic Achievements**

- Oriental Program for new admitted student in September 2020.
- “One Day International Iqbal Conference” on “فکرِ اقبال عصری مسائل کے آئینے میں” in 15th November 2019.
- Program about “Quaid e Azam Day” on 16th Jan 2020.
- Seminar “بیادِ شمس العلماء مولانا الطاف حسین حالی” on 22 Jan 2020.
- Seminar on “نیدرلینڈ میں اردو” 29th Jan 2020.
- Seminar on “Kashmir Day” topic “کشمیر اور عالمی ضمیر” on 6th Feb 2020.
- Seminar on “غالب اور ہم” on 26th Feb 2020.
- Special Online Seminar on Iqbal Day “تعلیمی نصاب میں فکرِ اقبال کی نمائندگی (تیسرہ و تجاویز)” on 21st April 2020.

○ **Foreign Academic Linkages**

- Tehran University Tehran, Iran
- Alazhar University Cairo Egypt
- Osaka University, Japan
- Tokyo University, Japan
- Naples University Naples, Italy

○ **Institutional Linkages**

- Tehran University Tehran, Iran
- Osaka University, Japan
- Tokyo University of Foreign Studies
- Jiangxi University of Science and Technology, China
- Academy of Persian Language and Literature Tehran, Islamic Republic of Iran, Iran
- Istanbul University, Turkey, Istanbul
- Saljuk University Konia Turkey



DEPARTMENT OF PUNJABI

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- **Undergraduate and Postgraduate Programmes**
 47 students have been admitted in M.A Part-I
- **MS and PhD Programmes**
 05 M.Phil and 10 Ph.D students have enrolled
- **Academic Achievements**
 - 13 students have successfully passed in M.Phil examination
 - 16 students have passed M.A Examinations

UNIVERSITY ORIENTAL COLLEGE

Telephone (s): +92-42-99212272, 99211621
 Fax Number (s): +92-42-9910831
 E-mail Address (s): principal@oriental.pu.edu.pk

- **Post Graduate level departments**
 5 (Arabic, Persian, Urdu, Punjabi, Kashmiryat)
- **Under Graduate Certificate/Diploma Classes in the Institute of Languages = 15**
 54 Faculty Members are teaching the Post Graduate and Certificate/Diploma classes of the above of the Oriental College.
 Details mentioned in the report of the above teaching departments of this college.
 (M.A 323 + M.Phil 181 + Ph.D 181 + Diploma in Languages 252 =937)

CONFUCIUS INSTITUTE

Telephone (s): 042-99233139
 Fax Number (s): 042-35883239
 E-mail Address (s): directorconfucius@pu.edu.pk

- **Academic Activities**
 We are offering short courses of Chinese language from level 1 to 5. Also we are providing opportunity to Chinese learner to study in China in different programs. Moreover, we arrange Chinese official test in this institute to provide student international certificate of Chinese language. We also provide teaching services to those institute/colleges/departments which have optional or compulsory Chinese language course in their institute/colleges/departments of the PU. Also, we provide out campus teaching services to other institute outside of PU. We have link with JXUST and Center for Language Education and Cooperation (CLEC), China, which is responsible of funding and teaching resources to this institute.



Faculty of Pharmacy

PUNJAB UNIVERSITY COLLEGE OF PHARMACY

Telephone (s): +92-42-99211616

Fax Number (s): +92-42-99211624

E-mail Address (s): principal@pharmacy.pu.edu.pk

○ **Undergraduate and Postgraduate Programmes**

In the College following regular classes of Undergraduate Degree program (Pharm. D) comprising of five years is regularly conducted throughout the each academic year.

- Pharm D Morning Session
- Pharm D Evening Session

○ **M.Phil and PhD Programmes**

Regular classes of M.Phil and Ph.D. are conducted in following four disciplines:

- Pharmaceutical Chemistry
- Pharmaceutics
- Pharmacology
- Pharmacognosy

○ **Foreign Academic Linkages**

- Philips University of Marburg, Germany
- The University of Huddersfield, Queensgate, Huddersfield, West Yorkshire, HD1 3DH, United Kingdom ("UoH")

○ **Institutional Linkages**

- a. Allama Iqbal Medical College (Jinnah Hospital), Lahore.
- b. The CCL Pharmaceutical Laboratories, Lahore
- c. Highnoon Laboratories, Lahore

Faculty of Sciences

CENTRE OF EXCELLENCE IN SOLID STATE PHYSICS

Telephone (s) +92-42-99233133-35, +92-42-99231136

Fax Number (s): +92-42-99231139

E-Mail Address (s): director.cssp@pu.edu.pk

○ **MS and Ph.D. Programmes**

- M.Phil. Solid State Physics
- M.Phil. Microelectronic Engineering & Semiconductor Physics
- MS. Nanotechnology
- Ph.D. Solid State Physics
- Ph.D. Microelectronics/ Nanotechnology



○ Academic Achievements

The Centre of Excellence in Solid State Physics was established in 1973. The major aim of establishing the Centre in this field was to provide the country with technically trained manpower and to establish research facilities in the field of solid state physics. The Centre offers M.Phil. degrees, Ph.D. degree and collaborative research work. The analytical facilities established in the Centre were successfully utilized to help various projects of National Importance. Students of various universities of Pakistan are offered these analytical facilities, and hundreds of samples of many different students have been analyzed, through ASIP and HEC, to date. Centre of Excellence in Solid State now boasts to have established facilities for theoretical and experimental research in the fields of materials preparation and characterization to device fabrication and characterization.

Achievements	2019-20
Number of faculty members	19
Number of adjunct faculty members	38
Number of books & Journal	4287
Number of M.Phil. students enrolled	454
Number of Ph.D. students enrolled	20
Number of students completing M.Phil.	77
Number of students completing Ph.D.	4

○ Foreign Academic Linkages

- At International level
 - School of Chemistry, University of Manchester, UK
 - Chinese Academy of Sciences Beijing, China
 - Laser Centre, University Technology Malaysia
 - Institute of Electronics, York University, York, UK

○ Institutional Linkages

- At National level
 - University of Engineering & Technology, Lahore.
 - Islamia University, Bahawalpur
 - Lahore College for Women University, Lahore
 - Govt. College University, Lahore
 - Bahauddin Zakariya University, Multan
 - Forman Christian College, Lahore
 - National Centre of Physics, Islamabad

CENTRE FOR HIGH ENERGY PHYSICS

Telephone (s) +92-42-99231137

E-Mail Address (s): director.chep@pu.edu.pk

○ Undergraduate and Postgraduate Programmes

53 students completed their BS (4-year) in Computational Physics and 63 students completed their M. Sc. in Computational Physics.



○ **MS and Ph. D. Programmes**

20 students completed their M. Phil study in High Energy Physics, 01 student completed Ph.D. in High Energy Physics.

CENTRE FOR INTEGRATED MOUNTAIN RESEARCH

Telephone (s): +92-42-99230625, 99230587

Fax Number (s): +92-42-99230624

E-mail Address (s): director.cimr@pu.edu.pk

○ **Undergraduate and Postgraduate Programmes**

- BS (Hons) in Disaster Management (DM) (Regular 4 Years)
- M.Sc. in Mountain Conservation and Watershed Management (MCWM)

This two-year M.Sc. Part I and Part II degree program each possess 10 and 04 students respectively thus a sum of 14 students are enrolled for year 2019-2020. The total numbers of student who have completed their Masteral degree in period are 15.

○ **MS and Ph. D. Programmes**

- M.Phil. in Geo-conservation and Sustainable Development (GCSD) (Regular 2 Years)
- Ph.D. in Geo-conservation and Sustainable Development (GCSD) (Regular 3-5 Years)

As a remarkable achievement, the Centre has running MPhil and PhD programmes in Geo-conservation and Sustainable Development (GCSD). Total strength of active enrollment of students in PhD programme is 18.

COLLEGE OF EARTH & ENVIRONMENTAL SCIENCES

Telephone (s): +92-42-99233121-2

Fax Number (s): +92-42-99233120

E-mail Address (s): principal.cees@pu.edu.pk

○ **Undergraduate and Postgraduate Programmes**

- BS Environmental Sciences (Morning & Evening) Program
- M.Sc. Environmental Sciences (Self-Supporting, Evening) Program
- M.Sc. Applied Hydrology (Morning) Program
- MSc. Tourism and Hospitality Management (THM) Morning & Evening Program
- PGD Occupational Health & Safety (Evening) Program

○ **MS/M.Phil. and PhD Programmes**

- MS Environmental Sciences (Regular Program)
- M.Phil. Environmental Sciences (Self-Supporting) Program
- M.Phil. Applied Hydrology
- M.Phil. Geomatics (Regular) Program
- M.Phil. Geomatics (Self-Supporting) Program
- MS/ M.Phil. Occupational Health & Safety Program (Regular) Program
- MS/ M.Phil. Occupational Health & Safety Program (Self-Supporting) Program



- Ph.D. Environmental Sciences
- Ph.D. Applied Hydrology
- Ph.D. Geomatics
- **Academic Achievements**

The College of Earth and Environmental Sciences is successfully running BS, M.Sc. MS/M.Phil. and PhD degree programs in the disciplines of Environmental Sciences, Applied Hydrology, Geomatics, Occupational Health & Safety, Tourism and Hospitality Management and PGD in Occupational Health & Safety. Presently, CEES has enrolment of about 813 Students in various disciplines during the academic session 2019-2020. Moreover, CEES has produced 10 PhD, 117 MS/ M.Phil. and 181 BS / M.Sc. during the academic session 2019-2020. In addition to that the faculty members of the CEES have published 50 research publications in the national/ international journals / conferences and book chapters during the academic year 2019-2020.
- **Institutional Linkages**
 - Environmental Protection Department, Government of the Punjab
 - Ministry of Climate Change, Government of Pakistan
 - UNDP, Pakistan
 - University of McGill,
 - University of Windsor, Ontario, Canada
 - M/s Wisey's Germany
 - Pakistan Association for Advancement in Science (PAAS)
 - American Rainwater Catchment System (Pakistan Chapter)
 - Pakistan Council for Renewable Water Resources (PCRWR)
 - PCRET, Pakistan
 - Pakistan Meteorological Department
 - Ministry of Climate Change
 - WAPDA
 - Soil Survey of Pakistan
 - National Cleaner Production Centre (NCPC), Islamabad
 - OXFAM Pakistan
 - Indus Consortium
 - WWF (Pakistan)
 - Bulleh Shah Packages
 - Waste Busters
 - The Urban Unit
 - ECO

COLLEGE OF STATISTICAL & ACTUARIAL SCIENCES

Telephone (s): +92-42-35962612-4

E-mail Address (s): info.stat@pu.edu.pk



- **Undergraduate and Postgraduate Programmes**
 - BS Statistics (4 years) – Regular & Self Supporting (Undergraduate)
 - BS Operation Research (4 years) – Regular & Self Supporting (Undergraduate)
 - BS Actuarial Science (4 years) – Regular & Self Supporting (Undergraduate)
 - M.Sc. Statistics – Regular & Self Supporting (Postgraduate)
 - M.Sc. Actuarial Science – Regular (Postgraduate)
 - Master of Information and Operational Management (MIOM) – Self Supporting (Postgraduate)
 - Master of Business Statistics & Management (MBSM)– Self Supporting (Postgraduate)
- **MS and PhD Programmes**
 - M.Phil – Regular
 - PhD – Regular
- **Academic Achievements**
 - Admissions in all the academic programs were successfully accomplished
 - Examinations of all the academic programs were timely conducted and results were also announced well within stipulated time;

DEPARTMENT OF GEOGRAPHY

Telephone (s): +92-42-99230419

Fax Number (s): +92-42-99231239

E-mail Address (s): office.geog@pu.edu.pk

- **Undergraduate and Postgraduate Programmes**
 - BS Regular Programme
 - BS *Selfsupport Programme*
 - M.Sc. Regular programmes
- **MS and Ph.D Programmes**
 - M. Phil. Regular programme
 - Ph.D. in Geography
- **Academic Achievements**
 - 01 Ph.D. Scholars completed their PhD
 - 25 M.Phil. Scholars completed their M.Phil.
- **Honors and Awards: 1**

DEPARTMENT OF MATHEMATICS

Telephone (s): +92-42-99231241, 99231091

E-mail Address (s): chairman.math@pu.edu.pk

- **Undergraduate and Postgraduate Programmes**
 - BS 4 Years
 - M.Sc. 2 Years (Morning/Self-Supporting Program)



- **M.Phil. and PhD Programmes**
 - M.Phil. 2 Years
 - Ph.D. 3-5 Years
- **Academic Achievements**
 - 09 Scholars completed their Ph.D. Degrees
 - 41 Scholars completed their M.Phil. Degrees
 - 141 M.Sc. students completed their Degrees
 - 28 BS students completed their Degrees
- **Foreign Academic Linkages**
 - School of Mathematical Sciences, Universiti Sains Malaysia, Penang, Malaysia.
 - School of Engineering, Manufacturing and Mechanical Engineering, University of Birmingham, UK.
- **Institutional Linkages**
 - External Examiners from different Universities conducted Viva Voce Examinations of M.Phil. and PhD.
 - 06 Post-graduate Colleges are affiliated with the department at M.Sc. level.

DEPARTMENT OF PHYSICS

Telephone (s): +92-99231243, 99230428

Fax Number (s): +92-42-35856892

E-mail Address (s): info.physics@pu.edu.pk

- **Undergraduate and Postgraduate Programmes**
 - BS 4-Year in Physics - (Regular/Morning)
 - MSc Physics Semester System – (Regular/Morning)
- **MPhil and PhD Programmes**
 - MPhil – (Regular Programme)
 - PhD – Regular
- **Academic Achievements**

The total numbers of students who have completed their degrees during 01.10.2019 to 30.09.2020 are 115 (35 BS, 55 MSc, 25 MPhil and 2 Ph.Ds.). Eighty one (81) research papers have been published in National and International Research Journals by the faculty members in the last academic year and many are submitted.
- **Foreign Academic Linkages**

Here is a list of some foreign institutions:

 - Department of Physics, University of Shanghai, China
 - Institute of High Energy Physics, Beijing, China
 - Beijing Institute of Technology, Beijing, China
- **Institutional Linkages**
 - PINSTECH, Islamabad National Centre for Physics (NCP), Islamabad
 - INMOL, Lahore



- Shaukat Khanum Hospital, Lahore
- SUPARCO, Lahore
- Govt. College University- Lahore
- Centre of Excellence in Solid State Physics
- Department of Meteorology- Lahore
- PCSIR-Lahore.
- UET, Lahore
- BZU, Multan
- COMSATS, Lahore
- Department of Physics, IUB
- FC College Lahore

DEPARTMENT OF SPACE SCIENCE

Telephone (s): +92-42-99233107

Fax Number (s): +92-42-99233106

E-mail Address (s): chairman.spsc@pu.edu.pk

○ **Undergraduate and Postgraduate Programmes**

B.S in Space Science

B.S in Space Science (Replica)

M.Sc. in Space Science

○ **MS and PhD Programmes**

M.Phil. in Space Science – Regular

M.Phil. in Space Science – Replica

PhD – (old scheme)

○ **Academic Achievements**

- Admission to all the academic programs were successfully made;
- Examinations to all the academic programs were timely conducted and results were also announced well within stipulated time;

○ **Institutional Linkages**

- SUPARCO
- Urban Unit
- WWF
- NESPAK
- Soil Survey of Pakistan
- Geological Survey of Pakistan
- Pakistan Water Research Council
- Pakistan Meteorological Deptt.
- Punjab Forest Department
- PMDFC

**INSTITUTE OF CHEMISTRY**

Telephone (s): +92-42-99230463

Fax Number (s): +92-42-99231269

E-mail Address (s): mabdulqadir.chem@pu.edu.pk

○ **Undergraduate & Postgraduate Programs**

- BS 4 Year Program (Semester system)
- M.Sc (Morning & Evening) (Annual System)

○ **MS & PhD Programs**

- M.Phil
- Ph.D

○ **Academic Achievements**

Institute of Chemistry produced 16 Ph.D, 58 M.Phil, 142 M.Sc and 47 BS students during 2019-2020 sessions with distinction in all programs.

○ **Foreign Academic Linkage**

MOU has been signed with University of Management and Technology (UMT) regarding Collaborative Education.

○ **Institutional Linkages**

Research collaboration with different research institutes including PCSIR, UMT, COMSATS, especially for Instrumentation

INSTITUTE OF GEOLOGY

Telephone (s): +92-42-99230467, 99231267

Fax Number (s): +92-42-35846501

E-mail Address (s): director.geo@pu.edu.pk

○ **Undergraduate and Postgraduate Programs**

Institute of Geology enrolled **90** students in BS Applied Geology (04 years) First Professional, Morning & Replica.

○ **MS and PhD Programmes**

- M.Phil. Applied Geology
- PhD Applied Geology

○ **Foreign Academic Linkages**

Institute of Geology has following foreign linkages programs.

- MOU is signed between China University of Petroleum for research collaboration and students exchange.
- Linkages with Seismic Micro-Technology Inc. Katy Freeway, Houston Texas, USA.
- DGB Earth Science, Netherlands
- Hydrological Forecast and Warning Department, Swedish Meteorological and Hydrological Institute, Sweden.



○ **Institutional Linkages**

- Mines and Mineral Department Govt. of Punjab, Lahore
- Oil and Gas Development Corporation Limited (OGDCL), Islamabad
- Pakistan Atomic Energy Mineral Centre, Ferozepur Road, Lahore
- Environmental Protection Department (EPD), Govt. of the Punjab, Lahore
- Water and Power Development Authority (WAPDA), Lahore
- Pakistan Oil Fields Ltd.
- OMV Exploration Pakistan, Islamabad
- MOL Pakistan Oil and Gas Co. Islamabad
- Ocean Pakistan Limited.
- Associated Consultants Engineering (ACE), Lahore.
- National Engineering Services Pakistan (NESPAK), Lahore
- Road Research and Material Testing Institute, Canal Road, New Campus, Lahore
- Pakistan Institute of Nuclear Science & Technology (PINSTECH), Islamabad.

PUNJAB UNIVERSITY COLLEGE OF INFORMATION TECHNOLOGY

Telephone (s): +92-42-99210969

Fax Number (s): +92-42-99212505

E-mail Address (s): principal@pucit.edu.pk

○ **Undergraduate and Postgraduate Programmes**

- BS Computer Science
- BS Software Engineering
- BS Information Technology
- M.Sc Information Technology

○ **MS and PhD Programmes**

- M.Phil Computer Science
- Ph.D in Computer Science

○ **Academic Achievements**

- 100% increase in student intake at BS level
- Increase in PhD Faculty to 29

SCHOOL OF PHYSICAL SCIENCES

Telephone (s): +92-42-99230234

E-mail Address (s): dg.sps@pu.edu.pk

○ **M. Phil and PhD Programmes**

School of Physical Sciences is planning to start M. Phil and PhD degree programs in the fields of Industrial Chemistry, and Optics and Photonics (Physics) in the first quarter of 2021. However, currently SPS is facilitating students and researchers from University of the Punjab and other organizations in their researches.



Punjab University Gujranwala Campus

Telephone (s): +92-55-9201221, 9201225-27

Fax Number (s): +92-55-9201223

E-mail Address (s): dg.grw@pu.edu.pk

○ **Undergraduate and Postgraduate Programmes**

- BBA (Hons.) Banking & Finance, 4 Year Programme
- BBA (Hons.), 4 Year Programme
- MBA (Hons.), 1 ½ Year Programme
- B.Com (Hons.), 4 Year Programme
- M.Com, 3 ½ Year Programme
- M.Com (Hons.), 1 ½ Year Programme
- MA English, 2 Year Programme
- BS (CS) 4 Year Programme
- BSIT, 4 Year Programme
- M.Sc. IT, 2 Year Programme
- LL.B, 5 Year Programme

○ **Institutional Linkages**

All the six departments at University of the Punjab Gujranwala Campus i.e., Banking & Finance, Business Administration, Commerce, English, Information Technology, and Law are working in collaboration with the parent departments of University of the Punjab at Lahore.

Punjab University Jhelum Campus

Telephone (s): 0333-8103618

E-Mail Address (s): administrator@pujc.edu.pk

○ **Undergraduate and Postgraduate Programmes**

- Bachelor of Business Administration
- Bachelor of Computer science
- Bachelor of Commerce
- BS Administrative Sciences
- L.L.B (3years) & L.L.B 5years

- Research & Development
 - Projects: (i) Completed (ii) Newly launched
- Publications
- Conferences, Seminars and Workshops, etc.
- Research Journals
- Research Collaboration
 - Indigenous
 - Foreign Linkages
 - Funding grants for R&D
 - Operation of Office of Research, Innovation and Commercialization (ORIC)



**CHAPTER****2****Research & Development****Faculty of Arts & Humanities****CENTRE FOR SOUTH ASIAN STUDIES**○ **Research and Development**

The Centre regularly published, Journals. Research Aid series, Monographs and Reports, etc. The research journals, South Asian Studies (Bi-Annual Journal & "Journal of Indian Studies"(Bi-Annual) are published regularly HEC Recognized. The Centre has organized a number of Seminars on different topics of national and international importance.

The Centre has published 4 issues of both research journals.

○ **Publications:** Books/ Edited*Journal South Asian Studies*

Sr. No.	Title	Year
1	South Asian Studies Vol. 34 No 2	July-December 2019
2	South Asian Studies Vol. 35 No 1	January-July 2020

Journal of Indian Studies

Sr. No.	Title	Year
1	Indian Studies Vol. 5 No 2	July-December 2019
2	Indian Studies Vol. 6 No 1	January-July 2020

○ **Conferences, Seminars and Workshops, etc.** (sponsors, oral Presentation + Poster Presentation)

A One Day National Conference "Kashmir Dispute" in Collaboration with Pakistan Study Centre, University of the Punjab, Lahore.	Mr. Mujeeb ur Rehman Shami, Renowned Journalist Prof. Dr. Adnan Sarwar Khan, Dept. of International Relations, NUML, Islamabad.	21-08-19
A one day Seminar on "Current Crisis in Kashmir".	Former Ambassador Murad Ali	29-08-19
A One day Seminar on "Current Situation in Jammu & Kashmir".	Justice (R) Faqir Muhammad Khokhar, Judge, Supreme Court, Islamabad.	19-09-19
A One day Seminar on "Kashmir and Pakistan".	Brig. (R) Nadir Mir, Chairman, Pakistan National Reform Movement (PNRMO)	26-09-19
A Seminar on "Indian Supremacy over Sub-continent ? Kashmir Lock Down".	Mr. Hassan Iqbal, Information Minister, Punjab.	15-10-19



A Workshop on "Research Methodology".	Dr. Khalid Mehmood, Chairman, Department of Library & Information Sciences, University of the Punjab, Lahore.	04-11-19
A Seminar on "Kashmir: Right to Self Determination".	Mr. Ross Masud, Former Legal Advisor, Ministry of Foreign Affairs, Pakistan.	28-11-19
A Discussion on "CPEC, China Pakistan Relations and Regional Politics".	A Chinese Delegation Visit to the CSAS	11-12-19
An International Conference on "Dr. B.R. Ambedkar: Socio-Political Empowerment of Minorities and Constitutional Rights".		12-12-19
A Seminar on "An Interactive Session on the Fall of Dhaka".	Former Ambassador Ashraf Qureshi	19-12-19
A Seminar on "Kashmir Today, Options for India and Pakistan".	Brig. (R) Imran Malik	09-01-20
A Seminar on "Global Immigration Issues and Challenges".	Dr. Steven Gravich, Associate Professor, Lock Haven University, Pennsylvania, USA	09-01-20
A Lecture on "Pakistan Military's Ability to Deter Aggression and Maintain Vital Strategic Balance in the Region".	Brig. (R) Imran Malik	26-02-20
Webinar on "Religious Persecution of Minorities in India & Implications of Citizenship Amendment Act (CAA)".	Dr. Asma Shakir Khawaja, Head of Department, Strategic Studies, National Defence University, Islamabad and Dr. Salma Malik, D.D.S. Department, Quaid-e-Azam University, Islamabad	03-10-20
1. Organized a webinar on "Indian Atrocities in IOK: Its Possible Implications and way forward".	Dr. Tehmina Aslam Ranjha, Assistant Professor, School of Integrated Social Sciences, University of Lahore & Research Fellow, Uol Centre for Security Strategy and Policy Research	24-10-20
2. "Political and Social overview of Hindutva in India".	Mr. Ammad Malik, Department of Political Science, Forman Christian College, Lahore	24-10-20

○ **Research Journals**

Journal of South Asian Studies Vol. 34 No. 2 (July-December 2019)

Sr.	Title	Author
1.	President Trump's Strategy in Afghanistan: The Way Forward to Normalcy	Muhammad Nasrullah Mirza & Yasir Malik
2.	Kashmir: The Major Source of Conflict between Pakistan and India	Abdul Majid, Shoukat Ali, Fazal Abbas & Shazia Kousar
3.	Nuclear Terrorism: Hype, Risks and Reality-A Case of Pakistan	Rizwan Naseer & Musarat Amin



4.	Honour Killings of Women in Punjab: A Socio-political Context	Afshan Kiran Imtiaz, Farah Malik & Raana Malik
5.	Role of Judicial System of Pakistan in Social Maladjustment of the Children under Child Custody Litigation	Kaleem Javed & Umbreen Javaid
6.	Impact of Violent Extremism on Pakistani Youth	Shabana Fayyaz
7.	Indian Strategic Influence in Afghanistan: Realist Ends through Social Means	Marium Kamal
8.	Pakistani Tile Mosaic Work: As Remarkable Ornamentation in the Contemporary Mosques of South Asia	Samina Nasim
9.	Representation of 'The Other': Tracing the 'Otherized' Segments of Contemporary Indian Society in Arundhati Roy's The Ministry of Utmost Happiness	Rizwan Mustafa & Zoya Jamil Chaudhry
10.	Emergence of Sectarian Indigenous Militants Groups in Pakistan and Politicization of Militant Thought	Maryam Azam
11.	The Socio-political Construction of 'Honor' in the Patriarchal Society of Pakistan	Farwa Qazalbash, Muhammad Islam & Irshad Ullah
12.	Gender Gap as a Result of Political Socialization in Formation of Voting Behavior among Christian Minority in Punjab (Pakistan)	Shamaila Hamid
13.	Awareness and Availability of Institutional Repository: Perceptions of Pakistani Research Scholars	Saqib Ur Rehman, Muhammad Aamir Hashmi & Abdul Jabbar
14.	Work Culture towards Professions in South Asia: A Multidimensional Study on University Teachers of Pakistan	Abdul Majid Khan Rana & Muhammad Hussain Chishti
15.	Health Literacy in South Asia: Clarifying the Connections between Health Literacy and Wellbeing in Pakistan	Rubeena Zakar & Muhammad Abdullah
16.	China-Pakistan Economic Corridor: Geo-political Implications, Regional Constraints and Benefits of CPEC	Umar Farooq & Asma Shakir Khawaja
17.	The US in Afghanistan: Consequences of an Untimely Withdrawal	Dayyab Gillani
18.	Representation of Women in Postcolonial Literature in Pakistan	Rukhsana Yasmeen & Muhammad Iqbal Chawla
19.	China's Territorial Claim at South China Sea: A Strategic Competition with USA and its Implications	Kanwal Hayat & Rehana Saeed Hashmi
20.	China-Pakistan Economic Corridor (CPEC): A Multi-Dimensional Plan 2017-2030 and Its Characteristics	A. Z. Hilali

Journal of South Asian Studies Vol 35-No.1 (January-July 2020)

Sr.	Title	Author
1	China-Russia-Pakistan Strategic Triangle: Imperative Factors	Syed Hussain Shaheed Soherwordi & Uzma Munshi
2	Decentralization and Social Development: A Study of Local Government System of Pakistan	Shoukat Ali & Abdul Majid



3	Is Corruption Detrimental for Economic Growth? A Panel Data Analysis of Selected South Asian Economies	Jahanzeb Khan, Rana M. Adeel-Farooq, Kashif Akram & M. Sharif Abbasi
4	Afghan Women Education: Bottlenecks & Future	Muhammad Saleem Mazhar & Naheed S. Goraya
5	String of Pearls: Politics of Ports in Indian Ocean	Khalid Manzoor Butt, Sanwal Hussain Kharl & Khizar Abbas Bhatti
6	Space Militarization Race among China-Russia and USA: Implications for South Asia	Fazal Abbas Awan & Umbreen Javaid
7	Institutional Failure: A Challenge to Good Governance in Pakistan	Marium Kamal & Sarfraz Batool
8	Indo- US Strategic Objectives in Afghanistan: Security Calculus of Pakistan	Muhammad Tayyab Zia
9	Theory of Separation of Power: Balancing the Civil-Military Relations in Pakistan 2013-2018	Zahid Mahmood & Muhammad Iqbal Chawla
10	Religious Tourism and Peace Building: Kartarpur Corridor as a Peace Symbol in India-Pakistan Conflict and Inter-Faith Harmony	Asma Hamid Awan & Iram Khalid
11	Politics of Nawab of Kalabagh Malik Amir Muhammad Khan (1910-1967)	Javid Raza Naseem & Abdul Basit Mujahid
12	Transitory Aspects and Population Dynamics in Rural Punjab: Demographic and Social Dimensions	Ayesha Farooq
13	War on Terror: Repercussions for Pakistan	Muhammad Shamshad, Amjad Abbas Khan & Muhammad Hassan
14	Creation of New Provinces: It's Socio-Political Implication for Pakistan	Chanzeb Awan
15	BRI & CPEC: Strategic & Economic Depth for Pakistan	Hafeez Ullah Khan

Journal Indian Studies Vol 5-No 2 July to December 2019

Sr.	Title	Author
1	Arms Race and Socio-economic Development of South Asia: A Case Study of Armament between India and Pakistan	Salma Naz
2	Media and Propaganda: Framing of the Mumbai Terror Attacks by the Indian and the Pakistani State Media	Fazal Abbas Awan, Ahmad Khan & Shaharyar Ahmad
3	Modern Intra-Balochistan Conflict and its Different Interpretations: A Critical Analysis under CPEC Scenario	M. Akram Zaheer, M. Ikram, M. Asim & Sawaira Rashid
4	Allama Muhammad Iqbal in Politics of the Indian Sub- continent	Isra Sarwar & Zubaida Zafar
5	Christianity in the Court of Mughal Emperor Akbar (1556-1605AD)	Awais Akhtar & Muhammad Waqas Nawab



6	Challenges of Colonial Education (women) and Response of Atiya Fayzee	Amna Latif & Rukhsana Iftikhar
7	The Dynamics of Pakistan-US Relations (2001-2019): (American Apprehension in Indian Ocean)	Muhammad Iqbal Roy, Farhan Khalid
8	Impact of Globalization on Green Growth: A Case of OECD Countries	Mahwish Zafar, Shazia Kousar & Saeed Ahmad Sabir
9	US President Trump Policies towards South Asia with particular reference to Afghanistan, India and Pakistan	Muhammad Owais
10	A Contrast of Muslim and Hindu Class System in Sub- continent	M. Suhaib Karamat

Journal Indian Studies Vol 6-No 1 January-July 2020

Sr.	Title	Author
1	India-United States Strategic Partnership in Indian Ocean Region and its Implications for Pakistan	Aima Tahir & Khushboo Ejaz
2	Socio-Cultural Determinants of Honor Killing in Pakistan	Shoukat Ali, Arfan Latif & Zubaida Zafar
3	Rise of Xenophobia in the West: Indian Exploitation and its Implication on Pakistani Diaspora	Muhammad Omer Shabbir, Muhammad Furqan Shabbir, Syeda Zahida Rizvi & Zainab Asghar
4	India's Relations with Gulf: A case Study of Indo-Saudi Strategic Relationship	Isra Sarwar
5	Stability-instability Paradox and Pakistan-India Relations under Prime Minister Narendra Modi (2014-2020)	Ghulam Murtaza Pitafi
6	Question of Recognizing Armenia: Pakistan vs. India's Stance	Muhammad Fahim
7	Indian Ocean and Indo-China Rivalry: Challenges for Pakistan	Muhammad Owais
8	Political Culture of Balochistan during Military Regime of General Pervez Musharraf and Indian Interest in Balochistan	Javeria Jahangir
9	A Case Study of Operation Gibraltar and Indo-Pak War of 1965: An Application of Decision-Making Models	Azeem Tariq & Muhammad Owais
10	Religious Tourism Backing for Economic Salvation: A Study of Kartarpur Corridor between Pakistan and India	Farzana Zaheer, Sultan Mubariz & Asia Saif Alvi

UNIVERSITY COLLEGE OF ART & DESIGN

○ **Research & Development – An Overview**

Prof. Dr. Shaukat Mahmood was serving as an HEC Professor under foreign Faculty Hiring Programme for the last 9 years.

Arch. Ahmed Muiz (Assistant Professor)

- Architectural conservation plan of Diwan-e-Azam Lahore, Fort.
- Is it a dream or reality of five million housing units construction in Pakistan? A review of house construction approaches and measure.
- Lahore: The Beauty of vernacular architecture.



- History and salient features of Shish Mahal, Lahore Fort, Lahore.
- Analytical study of uniqueness of culture of Pakistan.
- The development of Shiraz School of Painting.
- **Projects: Completed**
 - “The Impact of Globalization on Pakistani Art by Prof. Dr. Shahida Manzoor.
- **Conferences, Exhibitions, Seminars and Workshops, etc.**
 - An International Punjabi Conference at Lahore College for Women University, organized by Prof. Dr. Ahmad Bilal.
 - 04 Inhouse Workshops on Textile Techniques organized by Ms. Asna Mubashra.
 - A seminar by Mr. Abbas Rashid Butt (Research and Marketing Expert) at Lecture Hall, College of Art & Design, University of the Punjab, Lahore Organized by: Dr. Ahmed Bilal (Assistant Professor College of Art & Design) The Students of MFA, M.Phil and BFA attended the Seminar. The importance of perception over opinion, different methods of data collection were discussed in a very interesting manner. Mr. Abbas involved the students' participation by conducting small activities regarding elements of design such as line and space and the certificate distribution ceremony was held at the end of event on Thursday December 19th, 2019.
 - A seminar by Mr. Zulfiqar Ahmed Sheikh (Famous Actor, Director, Producer and Filmmaker) in Lecture Hall, College of Art & Design, University of the Punjab, Lahore, on November 15, 2019.
 - A seminar by Mr. Ayub Khawar (Famous Film Director, TV Director and Writer) Organized by Dr. Ahmad Bilal in Lecture Hall, College of Art & Design, University of the Punjab, Lahore on October 17, 2019
 - A seminar by Ms. Ambreen Saddique, Venue: Lecture Hall, College of Art & Design, University of the Punjab, Lahore on October 16, 2019
- **Research Publication**

Sr.#	Author	Title	Journal
1	Prof. Dr. Sumera Jawad	The Malang in Pakistan Today 2020 (Page 121-132)	Journal of the Research Society of Pakistan, University of the Punjab, Vol. 57, Year 2020
2	Prof. Dr. Ahmad Bilal	Blackening of Women's faces on advertisement boards.	Journal of Research and reviews in social sciences Pakistan, Kinnaird College, Lahore.
		Vandalism on advertisement boards in Pakistan	Journal of Research (Art & Humanities), Punjab University, Lahore.
		The Art Handmade Movie Hoardings in Pakistan.	Punjab University Historical Society, Volume No. 31.
3	Dr. Naela Aamir	An Analysis of the Components of Self-Realization in Sadequain's Poetry and Paintings"	Journal of the Research Society of the Pakistan, University of the Punjab, Lahore. (Feb-July 2020) Vol. 56.



4	Dr. Naela Aamir	The Ornamental Vocabulary of the Woodcarvings of Chiniot: A Study of Indigenous and Foreign Sources.	KHOJ Journal of Research, Punjab, Vol. 84, January-June 2020
5	Dr. Aqsa Malik	An Analysis of the Components of Self-Realization in Sadequain's Poetry and Paintings.	Journal of the Research Society of the Pakistan, University of the Punjab, Lahore. (Feb-July 2020) Vol. 56.
6	Dr. Aqsa Malik	The Ornamental Vocabulary of the Woodcarvings of Chiniot: A Study of Indigenous and Foreign Sources.	KHOJ Journal of Research, Punjab, Vol. 84, January-June 2020

DEPARTMENT OF ARCHAEOLOGY

- **Projects:** Newly launched
Religious Tourism in Lahore: Exploration and Documentation of Jain Heritage
- **Publications:** Books/ Edited
Dr. Muhammad Hameed, Associate Professor/ Chairman
 - The Retrospective and Prospective Psychiatry of the Extent of Archaeology in Cholistan Desert, Bahawalpur, Pakistan.
Published in: Journal of Ancient Punjab, Department of Archaeology University of the Punjab, Vol.7. 2019.
 - Origin and Development of Buddha Stupa: An Overview of Textual Narratives.
Published in: Journal of Ancient Punjab, Department of Archaeology University of the Punjab, Vol.7. 2019.
 - To Whom Belong the Pre-Muslim Jaina Heritage of Pakistan and Question of Taking its Ownership?
Published in: Journal of Ancient Punjab, Department of Archaeology University of the Punjab, Vol.8. 2020.
 - Archaeobotanical Insights of the Pre-Historic Agriculture in Pakistan: Archaeological Acumens.
Published in: Journal of Ancient Punjab, Department of Archaeology University of the Punjab, Vol.8. 2020.
 - Iconography of Pensive Bodhisattva and Great Renunciation: Examples from Miniature Portable Shrines from Gandhara.
Published in: Bodhisattva, Vol 1. 2020.
- Mr. Nafees Ahmad, Lecturer*
 - Terracotta Female Figurines from Mehargarh and Harappa: Analysis of Ornamental Similarities.
Published in: Journal of Ancient Punjab, Department of Archaeology University of the Punjab, Vol.7. 2019.



Ms. Samia Tahir, Lecturer

- Tomb of Musa Ahangar: An Analysis of its Architecture and Decoration.
Published in: Pakistan Heritage, Vol 11. 2019.
- Terracotta Female Figurines from Mehargarh and Harappa: Analysis of Ornamental Similarities.
Published in: Journal of Ancient Punjab, Department of Archaeology University of the Punjab, Vol.7. 2019

Ms. Saira Ramzan, Lecturer

- Tomb of Musa Ahangar: An Analysis of its Architecture and Decoration.
Published in: Pakistan Heritage, Vol 11. 2019.

DEPARTMENT OF ENGLISH LANGUAGE & LITERATURE

- **Conferences, Seminars and Workshops, etc.** (Sponsors, Oral Presentation + Poster Presentation)
 - Departmental Hosted Ph.D Seminar by Salma Khatoon and Farida Chisti on Oct 31st, 2019.
 - Departmental Hosted Book launch of Iffat Sayeed “Three Contemporary Artists” on 14th November, 2019
 - Hosted National Seminar on Antipiracy by Oxford University Press on 10th Oct, 2019.
 - The English Literary Society Hosted a program of Mila-un-Nabi (Khaatm-un-Nabiyyeenﷺ) in the Department of English on November 26th, 2019.
 - Departmental Hosted in the memory of poet and philosopher, Allama Muhammad Iqbal on November 11th, 2019.
 - Departmental Hosted a seminar by Amal Academy on January 15th, 2020 in which Sahar Ghalib (Program Manager) briefed the students about Amal Career-Prep Fellowship; a training to develop professional skills needed for a successful career for life.
- **Research Journals** (Authors name, Article name, Journal with date)

Prof. Dr. Amra Raza

- Liaqat, Hooria and Prof. Dr. Amra Raza. Revision of Indian Feminist Mythopoeia: An Exploration of Mythological Oppression in Anita Desai’s Fasting, Feasting Journal of the Research Society of Pakistan Volume No. 57, Issue No. 1 (January-June, 2020).
- Khan, Shahzeb and Prof. Dr. Amra Raza. (De) Coloniality in Research: A Case Study of English Literary Humanities in Pakistan Journal of Research (Humanities), Vol 56. No. 1. (January-June, 2020).

Dr. Shamaila Dodhy

- Dodhy, Shamaila. “Emotional Neglect in Lockhart’s Fifth Born”. Journal of Humanities, LVLI. Jan 2020.

Dr. Khurshid Alam

- Alam, Khurshid and Rizwan Akhtar . “Hybrid Aesthetics and Politics of Resistance; Re-inventing the Western Dramatic Form in Derek Walcott’s Dream on Monkey Mountain”. Journal of Research Society of Pakistan, Vol. 7, Issue1 (Jan-June 2020)



- Alam, Khursid . “Napak Jism: Vampirism as Queer Desire in Khwaja Sarfraz’s Zinda Laash (1967)”. Journal of Research (Humanities), 71-88, 2020
- Alam, Khursid . “Un/Veiling and the Politics of Resistance in the Public Sphere: A Critical Study of Mumtaz Shah Nawaz The Heart Divided” . Journal of Pakistan Vision. Vol 21. No. 1. 2020
- Alam, Khurshid and Waseem Anwar. “Teaching Transnational Poetics Interactively through the South Asian National Poets”. Vol. 56, No. 2, Jul. - Dec., 2019)
- Alam, Khurshid. “Politics of Silence and Resistance: A Critical Study of Noor”. Journal of Research (Humanities). Vol. LVI. Jan. 2020

Dr. Rizwan Akhtar

- Alam, Khursid and Rizwan Akhtar. “Hybrid Aesthetics and Politics of Resistance; Re-inventing the Western Dramatic Form in Derek Walcott’s Dream on Monkey Mountain”. Journal of Research Society of Pakistan, Vol. 7, Issue1 (Jan-June 2020)

Dr. Amna Umer Cheema

- Pasha, Zainab and Amna Umer Cheema. “Everyday Resistance and Temporary Autonomous Zones in Etel Adnan’s To be in a time of War”. Journal of the Punjab University Historical Society. V 33, issue No. 1. Jan-June 2020
- Cheema, Amna Umer. “Vladimir Nobokov’s Lolita: Humber Humbert’s Psychological transition from Desire to Remorse”. Journal of Research Society of Pakistan. Jan – June 2020.

Dr. Shahzeb Khan

- Khan, Shahzeb and Amra Raza. “To Terrify and Harmonize: on the Need of Historicizing the Emergence of the Fatal Discipline in Pakistan”. Academic Journal of Social Sciences. Vol 4 issue 2. Pp 292-308.

Dr. Amir Aziz

- Aziz, Amir and Farwa Javed. “Sci-Fi/ Fantasy Movies for identity Politics in Fourth Wave Feminism”. Fourth Wave Feminism in Science Fiction and Fantasy: Volume 1. Essays on Film Representations, 2012-2019. Ed. Valerie Estelle Frankel. McFarland Publishers (2019).
- Chisti, Farida and Amir Aziz. “Politics of Language and Discourse in One Man’s Bible by Gao Xingjian”. Kashmir Journal of Research . 22.2(2019): 41-51.
- Liaqat, Hooria and Aamir Aziz. “Exploration of the Counteractive Strategies against Racial and Gender Denigration of the Other in J.M Coetzee’s *Foe*”. Journal of Research (Humanities). Vol. LVI Jan 2020: 193-207

Zoya Jamil

- Mustafa, Rizwan and Zoya Jamil. “Representation of ‘The Other’: Tracing the ‘Otherized’ Segments of Contemporary Indian Society in Arundhati Roy’s *The Ministry of Utmost Happiness*”. South Asian Studies. Vol. 34. No. 2, July-Dec 2019.

Hooria Liaqat

- Liaqat, Hooria and Amra Raza. “Revision of Indian Feminist Mythopoeia: An Exploration of Mythological Oppression in Anita Desai’s *Fasting, Feasting*”. Journal of Research Society of Pakistan. Vol 57. No. 1. Jan-June 2020



- Liaqat, Hooria and Aamir Aziz . “Exploration of the Counteractive Strategies against Racial and Gender Denigration of the Other in J.M Coetzee’s *Foe*”. *Journal of Research (Humanities)*. Vol. LVI Jan 2020: 193-207

Syeda Momina Masood

“Napak Jism: Vampirism as Queer Desire in Khwaja Sarfraz’s *Zinda Laash* (1967)”. *Journal of Research (Humanities)*, 71-88, 2020

○ **RESEARCH COLLABORATION**

▪ **Foreign Linkages**

St. Andrews University, Scotland.

DEPARTMENT OF HISTORY & PAKISTAN STUDIES

○ **Research & Development**

The Department was established in 1932, with J.F. Bruce as its First Professor. It soon earned recognition owing to its high standard and expertise in a wide range of historical discipline. The Department since then stands as one of the elite and largest History Department among the various Universities of Pakistan. It is a pioneer Department in South Asia for advanced studies and enjoys status of premier and prestigious institution having fostered members of Faculty in other Universities. Initially, local colleges cooperated with the Department in organizing post-graduate teaching. Eminent scholars and Professors contributed towards its advancement from time to time. Those who rendered invaluable services include Professor J.F. Bruce, Prof. Dr. A.L. Sirivastava, Prof. J.D Ward, Sir Montgomery Hyde, Dr. Ishtiaq Hussain Qureshi, Prof. Dilawer Hussain, Prof. Sh. Abdur Rashid, Prof. Dr. Abdul Hamid, Dr. Zafarul Islam, Dr. Zawar Hussain Zaidi, Syed Ali Abbas, Prof. Dr. Yar Muhammad Khan, Prof. Muhammad Aslam, Prof. Ikram Ali Malik, Prof. Dr. Sadiq Ali Gill, Prof. Qamar Abbss, Prof. Dr. S. Qalb-i-Abid and Prof. Dr. M. Iqbal Chawla. The Research Journal of the History Department entitled “*Journal of the Punjab University Historical Society*” is one of the oldest journals of the University. It first appeared in 1932 and is currently being published biannually. It is a journal of international repute.

The present faculty has also grown up to seniority, eminence and professional ability. This includes Prof. Dr. Mahboob Hussain (Chairman), Prof. Dr. Rukhsana Iftikhar, Prof. Dr. Tahir Mahmood, Prof. Dr. Faraz Anjum, Prof. Dr. Naumana Kiran, Mr. Ghazi Muhammad Abdullah, Dr. Maqbool Ahmad Awan.

▪ **Projects: New Launched**

- Prof. Dr. Mahboob Hussain working on HEC awarded project titled: National Assembly of Pakistan: History of the Institution.

○ **Publications: Books/ Edited**

Prof. Dr. Mahboob Hussain

- Resistance from the Labour, Journalists, Students and Women against Zia’s Dictatorial Regime:
A Case Study of Punjab. *Journal of Punjab University Historical Society* Volume: 33, No. 01, January – June 2020



Prof. Dr. Tahir Mahmood

- Education in India: A case study of Chisti Madrasahs' Response to Colonial Education in Punjab. Journal of Punjab University Historical Society Volume: 33, No. 1, January – June 2020

Prof. Dr. Naumana Kiran

- Rehabilitation and Settlement of Refugees in East Bengal: Role of Federal Government of Pakistan, 1947-1950. Journal of Punjab University Historical Society Volume: 33, No. 1, January – June 2020

Dr. Maqbool Ahmad Awan

- Rise and Fall of the Unionist Party in the British Punjab (1923-47): A Theoretical Study. Journal of Punjab University Historical Society Volume: 33, No. 01, January – June 2020

- **Conferences, Seminars and Workshops, etc.** (Sponsors, Oral Presentation + Poster Presentation)
A Seminar was held on 27 November 2019, Title: "History of Art in China" from Prof. LUO Xiang Ke President Institute of Fine Arts & Design, Changsha Normal University, China.

- **Research Journals**

Following volumes of the Journal of the Punjab University Historical Society were published.

S.No.	Name of Journal	Volume
1	Journal of the Punjab University Historical Society	32 No.2
2	Journal of the Punjab University Historical Society	33 No.1

DEPARTMENT OF PHILOSOPHY

- **Research Journals:**

The Department of Philosophy published research journal Al-Hikmat A Journal of Philosophy 2019

Author's Name	Article Name	Journal
Dr Ali Raza Tahir and Iqbal Shah	Theosophical Cosmologies and Iqbal's Contribution: Cosmos as Living Entity	Al-Hikmat Volume 2019
Dr Ali Raza Tahir	Status of Woman in Allama Muhammad Iqbal's Thought	Al-Hikmat Volume 2019
Mr Muhammad Jawwad	Description and Evaluation	Al-Hikmat Volume 2019
Ms Sehreen Far Bukhari and Wajeeh Ud Din	Education, Philosophy of Education and Muhammad Iqbal	Al-Hikmat Volume 2019
Mr Muhammad Rasheed Arshad	Islamic Modernism	Al-Hikmat Volume 2019



PAKISTAN STUDY CENTRE

○ **Publications:** Books/ Edited

Pakistan Study Centre, University of the Punjab published a book titled "Pakistan General Elections 2018" authored by Dr. Karim Haider Syed, Assistant Professor of the Centre.

○ **Conferences, Seminars and Workshops, etc.** (sponsors, oral Presentation + Poster Presentation)

- Pakistan Study Centre, University of the Punjab arranged a Seminar on "Pak-China Relations: Community of Shared Destiny" in collaboration with Sichuan University, China, on Monday, December 16, 2019.
- Pakistan Study Centre, University of the Punjab in collaboration with Indigenizing Knowledge Forum (IKF) arranged a special lecture by Prof. Dr. (Retd.) Khurram Qadir, Former Chairman of History, Bahauddin Zakariya University, Multan on 'NATION/WHO: A QUEST FOR IDENTITY, Wednesday, October 16, 2019.

○ **Research Journal**

Two issues of the bi-annual research journal, 'Pakistan Vision', were published during the period under review:

- Pakistan Vision, (Journal) Vol. 20, No. 2, December 2019
- Pakistan Vision, (Journal) Vol. 21, No. 1, June 2020

Following research articles were included

Pakistan Vision, (Journal) Vol. 20, No. 2, December 2019

- Land Acquisition: an appraisal perspective of parliamentary inroads and judicial paradigms in Pakista by Iftikhar Ahmad Tarar
- The Role of Biraderies in the Politics of Faisalabad Division by Ayub Anwar
- Critical Analysis of Political Security of Christians in Pakistan by Umbreen Javaid, Iqra Jalal
- Socio-Cultural Life of the Kalasha People of Chitral: A Study of their Festivals by Muhammad Kashif Ali, Muhammad Iqbal Chawla
- Liability for Defective Pharmaceutical Products in Pakistani Law by Muhammad Akbar Khan, Khalil Kundi, Lutfullah Saqib
- Public Policy and Journalists' Perception in Pakistan by Muhammad Jawed Aslam, Noshina Saleem, Muhammad Zakria Zakar
- Colonization as an Emasculating Experience: The Symbolic Castration of the Colonized Men in Pre/Partition Fiction by Fatima Syeda, Rizwan Akhtar
- Historical and Contemporary Factors of the Prostitution: A Quantitative Comparison by Muhammad Ahtasham Jan Butt, Rizwan Akhtar
- A holistic view of Local Governments Acts in Pakistan. Analysis of Punjab Local Government Plans 2001 & 2013 by Amjad Abbas Khan, Samia Jamshed
- U.S. Initiatives for the Settlement of Kashmir Dispute in Cold War Period by Ahmad Ejaz, Lubna Zaheer, Naeem Qazi
- Impact of the Performance of Pakistan's People Party On the General Elections of 2013 by Karim Haider Syed, Naudir Bakht



- Marketing of Education: Semiotic Analysis of Allied School and The Educators Paid Advertisements on Pakistani Television Channels by Ayesha Ashfaq, Savera Shami, Saba Ijaz
- Factors Affecting Service Sector's Contribution To GDP in Pakistan by Kashif Rathore, Rubab Shahid, Kashif Ali, Aamir Saeed
- Impact of Caste and Biradari System on Voting Behavior: Comparative Study of Rural and Urban Southern Punjab (District Bahawalpur) by Nazir Hussain Shah, Naudir Bakht
- Dearth of Women Political Participation: A Hurdle in the Way of National Integration in Pakistan by Sobia Naseer , Ruqia Kalsoom
- Role of Entertainment-Education Dramain Awareness-raising amongst Young Women in Pakistan by Qurrat-ul-Ann Malik, Anika Ali, Ayesha Sadaf
- Agitational Politics in Pakistan: Refocusing on the Movement for Restoration of Democracy 1981 by Ahmad Hassan, Muhammad Iqbal Chawla, Abdul Majid Khan
- An Assessment of Etiology of Entrepreneurial Education in Universities of Punjab, Pakistan by Irfan Mahmood Janjua , Muhammad Farooq
- Sufism: Practices at Sufi Shrines in Punjab: (A Case Study of Baba Lasoori Shah, Lyallpur) by Abdul Qadir Mushtaq, Zil-Huma Rafique Fariha Sohail
- Students' Perception of Terrorism and Liberal Narrative in Pakistan by Ruqia Rehman, Ghulam Murtaza, Fida Muhammad
- Clicking Responses on Social Media: Analysis of Audience Engagement on Posts and Tweets of MNAs of Pakistan by Savera Shami
- What Determines the Global Terrorism? An Empirical Investigation for Developed and Developing Countries by Farhat Rasul , Nasir Iqbal
- Development-centered Mainstreaming of the Marginalized: Re-defined Landscape of Social Policy in Pakistan by Syed Salman Hassan, Syeda Mahnaz Hassan
- Exploring Chronotopol Politics in Hindu Indian Culture Incorporating Muslim Traits in Anita Desai's Clear Light of Day as a Nexus for Indo-Pak Dialogue by Syrrina Ahsan Ali Haque, Rizwan Akhtar
- An Investigation of the Flouting of Grice's Maxims with Reference to Capital TalkShow on Geo TV Private Channel of Pakistan by Muhammad Asif , Deng Zhiyong, Samrina Majeed, Samma Faiz Rasool, Maria Nisar
- The Provincial Elections of 1936-37: Sikandar-Jinnah Pact and the Party Politics in the British Punjab by Maqbool Ahmad Awan
- Thematic Analysis Effects of Women Empowerment on Household Decision Making in Pakistan by Sana Ejaz, Muhammad Farooq
- Socio-Economic Assessments and Living Standards of Kashmiri Migrants Living in Camps in Muzaffarabad (AJ&K;) by Raja Nazakat Ali , Abdul Majid Dar, Asghar Iqbal
- War on Terror and its Impacts on Pakistani Society by Syed Ali Raza, Muhammad Iqbal Chawla, Amjad Abbas Magsi, Abdul Basit Mujahid, Farzana Arshad, Nasir Khan
- Institutional Development of Legislation in Punjab 1849-1947: An Historical Analysis by Kalsoom Hanif , Abdul Basit Mujahid, Muhammad Abrar Ahmad, Shahbaz Ali, Sana Zaheer



- Politics and Religion in Colonial Punjab: A case study of Mianwali by Saadia Sumbal
- Minimizing Online Risks: Qualitative Study of Teenagers' Online Exposure and Parental Internet Mediation by Sarosh Iqbal, Rubeena Zakar
- Equity Pedagogy in Burgeoning Culture of Tolerance in Higher Education Institutions: A Perspective of Teachers by Samina Ashraf, Muhammad Uzair-ul-Hassan

Pakistan Vision, (Journal) Vol. 21, No. 1, June 2020

- Rethinking of women empowerment in Pakistan; Dimensions and Trends related to female in District Rawalpindi by Munazza Mubarak, Abdul Majid Khan Rana, Muhammad Mumtaz Ali Khan, Abdul Basit Mujahid, Muhammad Iqbal Chawla
- Gilgit-Baltistan A Gateway In China Pakistan Relations: An Overview Of Constitutional, Political, Strategic And Economic Dimensions by Shafqat Jabeen, Mussawar Hussain Bukhari
- Philosophical Quest for Political Legitimacy by Shakila Noor Sindhu
- Crime against Media Personnel and Threats to Media Houses in Pakistan: A Journalistic Perspective by Taimoor-Ul-Hassan, Liaqat Ali Malik, Jam Sajjad Hussain
- Impact of Climate Change on Forest Cover: Implications for Carbon Stock Assessment and Sustainable Development in HKH Region-Pakistan by Sohail Abbas, Safdar Ali Shirazi, Mian Sabir Hussain, Muhammad Yaseen, Khadija Shakarullah, Saadia Sultan Wahla, Mareena Khurshid Politics of Unionism by Samina Yasmeen, Abdul Basit Mujahid
- Political Manoeuvres of General Zia-ul- Haq to Consolidate Power by Muhammad Shamshad, Amjad Abbas Khan
- Cast and Baradri System and Voting Behavior in Pakistan (Elections 2018): A Case Study of Hafizabad District by Karim Haider, Muhammad Arshad Ali
- 'Remaking' the Genre Cinema of South Asia by Zubair Shafiq , Muhammad Muazzam Sharif,Wiqar Malik, Faraz Shafiq
- History of Student Politics and Its Revival in Pakistan by Abdul Qadir Mushtaq , Nasir Amir, Fariha Sohail, Zil-e-Huma Rafique, Muhammad Abrar Ahmad
- A Correlational Study of Teachers' Conceptions of Learning and Students' Academic Achievement at Secondary Level by Kiran Shehzadi , Mahr Saeed Akhtar
- Pakistan Initiatives & Endeavours Tocounter Money Laundering & Terrorist Financing Within FATF Perspective by Ibtisam Butt , Azhar Rashid, Salman Khan
- Khalistan Movement in Colonial Punjab: A Critical Reappraisal by Amir Ali, Muhammad Iqbal Chawla, Salman Ijaz
- Tolerance to Petty Corruption in Public Sector: A Review by Jamil Ahmad , Alia Ahmad, Taseer Salahuddin
- Social and Political Dynamics of Higher Education in Pakistan by Abdul Rehman, Ayesha Farooq
- Challenges before Electronic Media Channels in Pakistan by Asim Bashir, Zubair Shafiq, Farzana Arshad, Naudir Bakht
- Nascent Democracy of Pakistan (1988-1990) by Syed Tahir Hussain Bukhari, Abdul Basit Mujahid, Syed Akmal Hussain Shah, Muhammad Azeem



- BRI Project By China Impact on Indian Ocean Associated States (A Case Study of Economic Development and Security Issues After Project) by Salma Shaukat
- Liaquat Ali Khan – His Role and Contribution in the Pakistan Movement 1936 - 1947 by Kishwar Sultana
- Western influences on Postcolonial Artist Tanweer Murshad's Art by Syed Farjood Ailya Rizvi, Rafia Tahir, Faiqa Butt
- An Analytical Study on Brand Engagement in Self-Concept: A Perspective of Pakistan's Consumer Market by Shamaila Gull, Syed Salman Hassan, Sania Manzoor, Zubair Shafiq
- Challenges and Opportunities of China Pakistan Economic Corridor (CPEC) for Pakistan: A Human Resource Development (HRD) Perspective (1970s to 2018) by Kashif Rathore, Mukaram Ali Khan, Muhammad Iqbal Chawla
- Good Governance in Pakistan: Parameters, Causes and Measures by Muhammad Mumtaz Ali Khan, Imran Alam
- Assessing the Impact of Labour Policy of 1972 on Industrial Relations in Pakistan by Iftikhar Ahmad Tarar
- Centre-Punjab Relations, 2008-2013: A Critical Reappraisal by Farzana Arshad, Sania Muneer, Muhammad Saleem, Zahid Mahmood
- Leading Role of Castes of Dera Ghazi Khan District in Politics by Rehman Gul Khan, Naudir Bakht
- Global Citizenship Education: Values to be taught in the Light of the Rising Identity Crisis by Iram Rubab, Anusheh Bakht Aziz, Ahmed Usman, Aisha Amjad
- Un/Veiling and the Politics of Resistance in the Public Sphere: A Critical Study of Mumtaz Shah Nawaz The Heart Divided by Khurshid Alam
- Impact of Terrorism on The Economy of Pakistan by Asifa Khalid
- Constitutional Provisions Necessitating Change: Proposals for Reform in the Constitution of Pakistan Concerning Judiciary by Usman Quddus, Muhammad Arif Khan
- Students' Perception of Terrorism and liberal Narrative about Afghanistan in Pakistan by Ruqia Rehman, Fida Muhammad Bazai, Ghulam Murtaza
- Operation Zarb e Azb: A Decisive Strike by Urwa Elahi, Umbreen Javaid
- Pre-Colonial Situation of Women Education in Punjab by Awais Akhtar, Tahir Mahmood
- Induced abortion: Rural Women's Escape against Unintended Pregnancies by Aneela Sultana
- Provision of Notice for Divorce/Talaq after Pronouncement in Pakistan: An Analysis along-with Recommendations for Reform in Section 7 of the Muslim Family Law Ordinance, 1961 by Usman Quddus, Muhammad Arif Khan, Wasim Alam, Khurram Naeem Mir, Muhammad Haider Khan
- Muslim Representation in Indian Politics Since 1947 by Nisar A. Malik, Abdul Majid
- The Kartarpur Sahib Corridor- Reimagining the Relationship with Sikh Heritage & the Religious Diplomacy of Inclusive Pakistan by Muhammad Saleem Mazhar, Naheed S. Goraya
- Analysis of Potential Factors Influencing EPI Implementation in Punjab, Pakistan by Shahzad Amir, Ain ul Momina Sonia Omer, Sulsabeel Iftikhar, Rizwan Ullah Siddiqui, Sadia Jamal



RESEARCH COLLABORATION

○ Foreign Linkages

The Centre has signed (02) Two MoU with following foreign universities:

- Shanghai University, China
- Sichuan University, China

DEPARTMENT OF FRENCH

○ Research Projects

- The Research team under the supervision of Dr. Saleha Nazeer worked on the Trilingual Translation Project : French, English, Urdu, with the objective to offer the Teachers and Students of French language a Guide Book of practicing French expression. The project is 75% complete and is to be continued in the next year.
- Journal publication: “Iqbal’s Final Address to God and Humanity” by Dr. Saleha Nazeer, published in Iqbal Review, Vol : 59, Issue:2,4, 2018; published in 2020.
- Dr. Saleha Nazeer also worked on the reception and perception of Iqbal’s thought among the French thinkers and philosophers. Her current project explores the perspective of Louis Massignon about Allama Iqbal’s “Reconstruction of Religious Thought in Islam”.

○ Students Mémoires / Research projects:

Final term Mémoires / Research projects by the students of undergraduate program were also successfully conducted under the supervision of Dr. Saleha Nazeer as per following details (Research projects were conducted in French language; English version of their titles is also mentioned):

- Short Stories as a Cultural and Linguistic Tool to Teach a Foreign Language, *Des contes comme une ressource culturelle et linguistique pour enseigner une langue étrangère*, by Amilia Munawar, BS French.
- Role of Anxiety among Learners of French as a Foreign language, Beginners Level, *Le rôle d’anxiété chez les apprenants du FLE, niveau débutant*, by Aashra Ramzan, BS French.
- Research Trends in the field of French as a Foreign Language : Current Needs and Research Implications, *Tendances de recherché en FLE : Besoins et Implications*, by Amtul Wakeel, BS French.

Other academic events:

- Research grooming workshops and interactive sessions were conducted by Dr Saleha Nazeer for the graduate students on the following topics:
 - Abstract Writing Skills
 - Soft Skills
 - Research Log
 - Research Statement & Title Selection
- Dr. Saleha Nazeer conducted students’ live video sessions presenting Bilingual Interpretative Breaking News, Regular News Reporting, Weather Forecast, etc.



- A series of sessions on bilingual Translation & Interpretation covering dialogues, phrases and expressions used frequently in our daily life situations was also conducted by Dr. Saleha Nazeer for the Final Term students of BS.
- Business French workshop for BS students was conducted by Ms Sabrina A. Rassool : Title: Business Communication and Professional Letter writing.
- Spoken French sessions: Dialogue and role plays on greetings and salutations in French, under the supervision of Ms Sabrina A. Rassool were conducted for beginners level BS students.
- Session on the Tips & Techniques of Effective CV Writing was conducted by Dr. Saleha Nazeer for BS and MA students.

Faculty of Behavioral & Social Sciences

DEPARTMENT OF GENDER STUDIES

- **Publications**
 - Kashif Siddique, Rubeena Zakar, Ra'ana Malik, Naveeda Farhat, and Farah Deebea (2019). Intimate partner violence and its association with contraceptive use among women in Pakistan. Pakistan Journal of Psychological Research, Vol. 34,
 - Dr. Sahira Zaman (2019). Moderating Role of Dispositional Traits on Work-family Interface (WFI) and Marital Adjustment among Pakistani Employees., Pakistan Journal of Social and Clinical Psychology, No.2, 50-55
- **Conferences, Seminars and Workshops, etc.**

Webinars conducted by DGS

 - Title: Assessing the impact of Covid-19 on women during lock down period (June 10, 2020)
 - Title: A Paradigm Shift: Youth Experiences on Men Engagement During Covid-19 lockdown. (June 17, 2020)
 - Department has organized National Conference on Gender Studies on Thursday, 2nd May 2019 on the theme of "Sustainable Development Goals: Achievements and future in gender perspective"
- **Research Journals**
 - Journal of Gender and Development
Started in 2006. Working to bring it in streamline. The back issues will be published in this year.

DEPARTMENT OF POLITICAL SCIENCE

- **Projects: Completed**

Sr. No.	Name of Faculty Member	Titled of Project	Funded By	Year of Completion
1	Prof. Dr. Umbreen Javaid	Assessment of Social Political and Economic Dimensions of CPEC: An Integrated Approach	University of the Punjab, Lahore.	2020



2	Prof. Dr. Iram Khalid	Internal Challenges for Rising China Lessons for Pakistan	University of the Punjab, Lahore.	2020
3	Dr. Rana Eijaz Ahmad	Thinking Beyond Democracy and Freedom: A Post 9/11 War on Terrorism Scenario	University of the Punjab, Lahore.	2020
4	Dr. Rehana Saeed Hashmi	Patterns of Governance in Pakistan: A Shift from Democratization to Consolidated Democracy	University of the Punjab, Lahore.	2020
5	Dr. Mubeen Adnan	Pakistan's Ability to Mitigate Water Shortage by Making Diamir-Basha Dam	University of the Punjab, Lahore.	2020
6	Dr. Gulshan Majeed	China-Pakistan Economic Corridor: Significance and Challenges	University of the Punjab, Lahore.	2020
7	Ahmad Ali Naqvi	China Pakistan Economic Corridor (CPEC) and Regional Re-Alignment in Asia	University of the Punjab, Lahore.	2020

○ Research Publications

Prof. Dr. Umbreen Javaid

- Rejuvenating Pak-Turk Ties: An Appraisal. Journal of Contemporary Studies (JCS), National Defence University, Islamabad. Vol. IX, Issue-I, 2020.
- Indian Naval Expansion and Strategic Partnership with the Us in the Indian Ocean Region: Implications for Pakistan. Margala Papers, NDU, Islamabad. Vol. XXIV, Issue-I, 2020.
- Space Militarization Race among China-Russia and USA: Implications for South Asia. Journal of South Asian Studies, P.U. Lahore. Vol.35, Issue-I, 2020.
- Strategic Significance of CPEC: A Game Changer for Pakistan Malik Khurram Shahzad and Prof. Dr. Umbreen Javaid. Journal of Political Studies. P.U. Lahore. Vol.27, Issue-I, 2020.
- Operation Zarb e Azb: A Decisive Strike. Journal of Pakistan Vision, P.U. Lahore. Vol.21, Issue-I, 2020.
- Pak-Iran Trade Ties in the 21st Century and Future Prospects for Strong Relationships. Journal of Research Society of Pakistan, University of the Punjab, Lahore. Vol.57, Issue-I, 2020
- Religion and Politics in Pakistan: A Historical Analysis of Islamization. Journal of Political Science Government College University Lahore. Vol. XXXVII, 2019.
- Rejuvenation and Global Dominance of the Chinese People through the BRI: A Confucianist Solution. Journal of Political Studies. P.U. Lahore. Vol.26, Issue-II, 2019.
- Critical Arabia Strategy to Influence Public Opinion: An analysis through Realist, Liberal & Constructive Perspectives. Journal of Pakistan Vision, P.U. Lahore. Vol.20, Issue-II, 2019.
- Role of Judicial System of Pakistan in Social Maladjustment of the Children under Custody Litigation. Journal of South Asian Studies Vol.34, Issue-II, 2019.



Prof. Dr. Iram Khalid

- Iran's Nuclear Ambitions: A Neorealist Framework. Journal of Political Science Government College University Lahore. Vol. XXXVII, 2019.
- Sino-US Competition and Challenges for Global Political Order. Journal of Political Studies. P.U. Lahore. Vol.26, Issue-II, 2019.
- Interstate Water Politics: An Analysis of Indian Case Water Governance in India. Pakistan Social Sciences Review. Vol. 4, Issue-II June 2020.
- Insurgency in Afghanistan: Challenge to Liberal Peace and State building. Vol. 4, Issue-III, March 2020.
- Religious Tourism and Peace Building: Kartarpur Corridor as a Peace Symbol in India-Pakistan Conflict and Inter-Faith Harmony. Journal of South Asian Studies, P.U. Lahore. Vol.35, Issue-I, 2020.
- Internal Challenges for Rising China Lessons for Pakistan. Journal of Political Studies. P.U. Lahore. Vol.27, Issue-I, 2020.

Prof. Dr. Rana Eijaz Ahmad

- National Security Strategy of Iran and North Korea. Journal of Political Studies. P.U. Lahore. Vol.26, Issue-II, 2019.
- Role of Electronic Media in Developing Political Perceptions of People: A Comparative Analysis of ARY and PTV (2008-16). Journal of Politics & International Studies. P.U. Lahore. Vol.06, Issue-I, 2020.
- Role of Media in Developing Political Perceptions of the People. Journal of Politics & International Studies. P.U. Lahore. Vol.05, Issue-II, 2019.

Dr. Rehana Saeed Hashmi

- China's Territorial Claim at South China Sea: A Strategic Competition with USA and its Implications. Journal of South Asian Studies Vol.34, Issue-II, 2019.
- Pakistan People's Party and Foreign Policy Priorities: (2008-2013): An Analysis. Journal of Political Studies. P.U. Lahore. Vol.27, Issue-I, 2020.

Dr. Mubeen Adnan

- Interpreting the Cause and Effect of Populism Narrative in US Elections' 2016. Journal of Political Studies. P.U. Lahore. Vol.26, Issue-II, 2019.
- South China Sea Dispute: China's Role and Proposed Solutions. Journal of Political Studies. P.U. Lahore. Vol.27, Issue-I, 2020.

Dr. Gulshan Majeed

Deconstructing the Problematic Relationship of Pakistan and United States of America: Challenges and Opportunities for Pakistan. Journal of Political Studies. P.U. Lahore. Vol.26, Issue-II, 2019.

Muhammad Sajid

- Challenges to Use Open Government Data through the Citizens' Lens: A Systematic Review. Journal of Political Studies. P.U. Lahore. Vol.26, Issue-II, 2019.



- Mapping success and failure: A comparative case study of South Asian separatist movements using lenses of contentious politics. Journal of Political Studies. P.U. Lahore. Vol.27, Issue-I, 2020.

Dr. Dayyab Gillani

- The US in Afghanistan: Consequences of an Untimely Withdrawal. Journal of South Asian Studies Vol.34, Issue-II, 2019.
- Federal Iraq and Unitary Afghanistan: A comparative analysis of plural societies. Journal of Political Studies. P.U. Lahore. Vol.27, Issue-I, 2020.

○ **Conferences / Seminars and Workshops etc**

Organized a National Conference on “South Asia: Challenges & Opportunities for Regional Co-operation” at University of the Punjab, Lahore – Pakistan, on 31st March 2020. The said conference postponed due to Covid-19.

Nature	Title	Day / Date	Time	Name of Speaker
Lecture	Role of Embassies	Monday 02.03.2020	01:30 to 03:30 p.m.	Mr. Murad Ali
Talk	Aviation Diplomacy	Wednesday 15.01.2020	12:30 to 02:00 p.m.	Syed Aftab Gillani Chief ATCO / Senior Joint Director, Pakistan Civil Aviation Authority
Discussion Session	Middle East Crisis and Foreign Policy Choices for Pakistan	Thursday 09.01.2020	01:30 to 03:30 p.m.	Mr. Ahmad Ali Naqvi Lecturer
Seminar	Islamic State of Iraq and Syria (ISIS): Major Power Politics in Middle East	Wednesday 11.12.2019	12:00 to 01:30 p.m.	Dr. Qudsia Akram Lecturer, Kinnaird College
Seminar	An Awareness Session on Climate Change	Thursday 05.12.2019	01:30 to 03:00 p.m.	Dr. Zille Huma Assistant Professor
Workshop	Basic Guidelines for Academic Writing	Thursday 07.11.2019	01:30 to 03:00 p.m.	Ms. Rakhshanda Iqbal
Ceremony	Graduation Ceremony for the students of BS (Hons) Political Science Program	Tuesday 05.11.2019	09:30 a.m.	--
Student Talk	Student Talk on Kashmir Issue	Thursday 31.10.2019	12:00 to 02: 00 p.m.	Dr. Rehana Saeed Hashmi Dr. Mubeen Adnan
Lecture	Cancer Awareness	Monday 28.10.2019	01:00 p.m.	Dr. Abu Bakar Shahid, Director, INMOL Cancer Hospital, Lahore.
Discussion	Challenges to Pakistan National Security	Thursday 24.10.2019	12:00 to 01:30 p.m.	Brig. Nadeem Former DG ISPR Quetta



○ Research Journals

- Department of Political Science is publishing its Research journal “Journal of Political Studies’ since 2000, HEC recognized in ‘Y’ category.
- Introduced new research journal at Department of Political Science titled, “Journal of Politics & International Studies” HEC category “Y” (2018).

RESEARCH COLLABORATION

○ Funding Grants for R&D

Sr. No.	Name of Faculty Member	Titled of Project	Funded By	Amount Rs.	Year of Completion
1	Prof. Dr. Umbreen Javaid	Assessment of Social Political and Economic Dimensions of CPEC: An Integrated Approach	University of the Punjab, Lahore.	250,000	2020
2	Prof. Dr. Iram Khalid	Internal Challenges for Rising China Lessons for Pakistan	University of the Punjab, Lahore.	250,000	2020
3	Dr. Rana Eijaz Ahmad	Thinking Beyond Democracy and Freedom: A Post 9/11 War on Terrorism Scenario	University of the Punjab, Lahore.	200,000	2020
4	Dr. Rehana Saeed Hashmi	Patterns of Governance in Pakistan: A Shift from Democratization to Consolidated Democracy	University of the Punjab, Lahore.	200,000	2020
5	Dr. Mubeen Adnan	Pakistan’s Ability to Mitigate Water Shortage by Making Diamir-Basha Dam	University of the Punjab, Lahore.	150,000	2020
6	Dr. Gulshan Majeed	China-Pakistan Economic Corridor: Significance and Challenges	University of the Punjab, Lahore.	150,000	2020
7	Ahmad Ali Naqvi	China Pakistan Economic Corridor (CPEC) and Regional Re-Alignment in Asia	University of the Punjab, Lahore.	125,000	2020

DEPARTMENT OF SOCIAL WORK

○ Research and Development

- Department of Social Work organized a National Conference on Migration in Collaboration with Migrant Resource Center (MRC) Lahore on 11 December, 2019 at Environmental Law Center, Punjab University Law College.
- Department of Social Work arranged Special Lectures of Dr. Steven Granich, Associate Professor of Social Work, Lock Haven University, Pennsylvania, USA for BS, MPhil and PhD Students on 8th and 10th January, 2020.
- Department of Social Work arranged Social Work Relief Activity (Rashan Distribution) during COVID-19 on 20th April, 2020.
- Department of Social Work in collaboration with University of Peshawar and Community World Service Asia organised Second National Summer School of Social Work from 9th to 11th September, 2020.

INSTITUTE OF COMMUNICATION STUDIES

- **Completed Projects:** A research Project on “Fear of Isolation and Self-Censorship: SNS Users Response on State Institutions and Religious Extremism in Four South Asian Countries” funded by the University of the Punjab for the fiscal year 2020-21 completed by Dr. Noshina Saleem



○ **Publications:** Books/ Edited

Prof. Dr. Noshina Saleem

- Media and Crime: Influence of Food Crime Investigations on Consumer Perception published in Global Social Sciences Review (GSSR), 2020, Vol 5, No 2, Page 82-93.
- Print Media and Politics: A Comparative Study of Three Leading Pakistani Political Parties in General Elections 2013 published in Journal of the Research Society of Pakistan, 2020, Vol 57, No 1, Page 329-338.
- Social Media Dependency and Socio-Cultural Integration: Case of Internally Displaced Persons in Pakistan published in Pakistan Social Sciences Review (PSSR), 2020, Vol 4, No 3, Page 52-65.
- Media Dependency During Internal Migration: Case of Internally Displaced Persons in Pakistan published in Journal of Engineering, Management, & Applied Sciences & Technologies, 2020, Vol 11/13
- “Role of Social Networking Sites for Promoting Sexual Health Education Among Pakistani Adolescent” under process
- “Towards Self-regulated Learning in School Students: Taking Perceived Teaching Styles and Class Room Environment as Predictors” under process

Prof. Dr. Bushra H. Rahman

- “Constructing Reality: Framing of the Kashmir Conflict in Dictatorial and Democratic Regimes in the Pakistani English Press” Journal: Media Watch 11 (3) 401-415 0976-0911 e-ISSN 2249-8818 DOI: 10.15655/mw/2020/v11i3/203045

Dr. Savera Shami

- “Analysis of Quality of Relationship Cultivated by Politicians of Pakistan through Facebook and Twitter” published in Journal of the Research Society of Pakistan, Vol. 57, No. 1, 2020.
- “The United States in the Language of Sign & Codes: Identification of Visual-Verbal Symbolic Techniques Used in Pakistani Political Cartoons” published in Journal of the Research Society of Pakistan, Vol. 57, No. 1, 2020.

Dr. Ayesha Ashfaq

- “Analysis of Quality of Relationship Cultivated by Politicians of Pakistan through Facebook and Twitter” published in Journal of the Research Society of Pakistan, Vol. 57, No. 1, 2020.
- “The United States in the Language of Sign & Codes: Identification of Visual-Verbal Symbolic Techniques Used in Pakistani Political Cartoons” published in Journal of the Research Society of Pakistan, Vol. 57, No. 1, 2020.

Dr. Muhammad Akram Soomro

- “Relation of use of Facebook and Student Retention Thorough the Path of Student Engagement” published in Academic Journal of Social Sciences, Vol 4, Issue 2, 2020.
- “Security and Economic Prospects of Fencing Along Pak-Afghan Border” published in Journal of Politics and International Studies, Vol 6, No 2, 2020



Dr. Muhammad Shabbir Sarwar

- “Pakistan Social Media and Sectarian Violence: Roles and Responsibility of the State and Citizens” published in Journal of the Research Society of Pakistan, Volume 57, No 1, 2020.
- “Media, Education and Voting Behaviour: A Comparative Study of Communication Channels’ Impact on Voters having Elementary, Secondary and Higher Education in Punjab, Pakistan” published in Journal of Elementary Education, Vol 30, No 1, 2020.

Mr. Fahad Mahmood

- “Representation of Future Lifestyle in Science Fiction Hollywood Movies: Semiotic Analysis of Tomorrowland (2015) for Technological Utopianism”, Published in Journal of Media Studies, Vol 36, No 2, 2020.
- “Information Seeking through TV and Facebook and Health Belief Model: A Case of Province of Punjab (Pakistan) during Covid-19 Pandemic”. Published in Journal of Research Society of Pakistan. Vol 57, No 2, 2020.
- "Politics for environment: Youth perception on campaign for billion tree tsunami to combat climate change situation in Pakistan" Published in Journal of Media Studies, Vol. 36, No 1, 2020.

Ms. Sana Naveed Khan

- “Analysis of Quality of Relationship Cultivated by Politicians of Pakistan through Facebook and Twitter” published in Journal of the Research Society of Pakistan, Vol. 57, No. 1, 2020.
- **Conferences, Seminars and Workshops, etc.** (sponsors, oral Presentation + Poster Presentation)
 - Seminar organized on "Kashmir Mojooda Halaat ke Tanazur Mein" on January 16, 2020 in the Hameed Nizami Memorial Conference Room, ICS. Ms. Mishaal Hussain Malik (Wife of Yasin Malik) was the guest speaker.
 - Organized a Special Lecture on "Think Beyond Media: Global Careers for the Communicators" by Mr. Bilal Haider Rana, University of Erfurt, Germany on February 27, 2020 in the Faiz Ahmad Faiz Conference Room, Institute of Communication Studies.
- **Research Journals**
Biannual Journal of Media Studies

INSTITUTE OF SOCIAL & CULTURAL STUDIES

- **Research & Development**
The faculty of Institute of Social & Cultural Studies (ISCS) is engaged in research and have published number of articles and books so far. The ISCS has completed number of projects and the institute is still engaged in the projects and contributing its part in the field of Research.
- **Conferences, Seminars and Workshops, etc.** (Sponsors, Oral Presentation + Poster Presentation)
Religion and Society: creating tolerance through socio religious harmony (13-Nov-2019)



○ **Research Journals**

Prof. Dr. Rubeena Zakar

Title of Research Article	Name of Journal
Trends of Caesarean Section Deliveries in Pakistan: Secondary Data Analysis from Demographic and Health Surveys, 1990-2018	BMC Pregnancy and Child Health
Qualitative study of socio-cultural challenges in the nursing profession in Pakistan	BMC Nursing
Predictors of parental mediation in teenagers' internet use: A cross-sectional study of female caregivers in Lahore, Pakistan	BMC Public Health
Demand and Supply Side Factors Associated with the Use of Contraceptive Methods in Pakistan: A Contemplative Study of Demographic and Health Surveys, 1990-2018	Research Square
Psychometric study of Facebook addiction among university students in Islamabad, Pakistan	Rawal Medical Journal
Institutional Environment of Old Age Homes and Its Relation	Journal of Aging and Environment
Minimizing Online Risks: Qualitative Study of Teenagers' Online Exposure and Parental Internet Mediation	Pakistan Vision
Determinants of Fertility And Fertility Preferences In Pakistan: Comparative Secondary Analysis Of PDHS 2007-2013	Pakistan Journal of Gender Studies

Prof. Dr. Khalil Ahmad

Title of Research Article	Name of Journal
Women's Substantive Role In Local Government Khyber Pakhtunkhwa: Challenges And Opportunities	Pakistan Journal of Gender Studies

Dr. Farhan Navid Yousaf

Title of Research Article	Name of Journal
Impact of the provincial government policies on agro-fisheries based communities of Central Indus Wetlands Complex	Pakistan Journal of Agricultural Sciences
A Comparative Analysis of socio-economic status of central Indus based fishermen communities and national indicators of Pakistan	Asian Journal of International Peace & Security
Youth at risk: The alarming issue of drug addiction in academic Institutions in Pakistan	Children and Youth Services Review
Irregular migration, trafficking into forced marriage, and health insecurity	Global Regional Review
Whom to vote? Socio-psychological factors influencing voting behavior in rural Punjab, Pakistan	Sir Syed Journal of Education and Social Research
Bullying in educational institutions: College students' experiences	Journal of the Social Sciences
The protest, transformation of the public sphere and notions of femininity; women experiences in Pakistan	Sir Syed Journal of Education and Social Research



Dr. Muhammad Ramzan

Title of Research Article	Name of Journal
Impact of CSR On Corporate Reputation, Customer Loyalty and Organizational Performance	Governance and Management Review (GMR)

RESEARCH COLLABORATION

○ Foreign Linkages

ISCS has extended a Linkage with Leeds University, UK and has organized a conference on Religion and series of research workshops.

Faculty of Commerce

HAILEY COLLEGE OF BANKING & FINANCE

○ Research & Development – An Overview

We do not have any Institutionalized Arrangement for R&D. However, research backed teaching is being undertaken by us by distributing the articles published in Research Journals pertaining to our discipline.

○ Projects

Rehabilitation and Renovation of the Noor Ud Din Zangi Hall, Hailey College of Banking & Finance from own sources estimated to cost Rs.20. 8 (M) on completion.

○ Publications: Books/ Edited

Name	Article Name	Journal name	Vol	Date
Dr. Farah Naz	What Constitutes Intellectual Capital for ITSoftware Industry? A Delphi Study	Paradigms	13(2)	Sunday, December 1, 2019
Dr. Ahmed Muneeb Mehta	Empirical Study of the Impact of Brand Name on Market Performance through Sustainable Competitive Advantage and Brand Loyalty as Moderator in Pakistani Context	European Online Journal of Natural and Social Sciences	9(1)	Wednesday, January 1, 2020
Dr. Samar Rahi	Factors propelling the adoption of internet banking: the role of e-customer service, website design, brand image and customer satisfaction.	International Journal of Business Information Systems	33(4)	Sunday, March 1, 2020
Dr. Tehmina Fiaz Qazi	Impact of Loyalty on Retail Sale: An Empirical Investigation Of Service Operations And Customer Behavior As Mediators	International Journal of Management Research and Emerging Sciences	10 (1)	Sunday, March 1, 2020
Dr. Zargham Ullah Khan	Impact of Employees' Behavior on Sales: A Case Study of L'oreal Pakistan	Pakistan Social Sciences Review	4(1)	Sunday, March 1, 2020



Dr. Ahmed Muneeb Mehta	How Brand Image and Perceived Service Quality Affect Customer Loyalty Through Customer Satisfaction	Academy of Marketing Studies Journal	24(1)	Sunday, March 1, 2020
Dr. Ahmed Muneeb Mehta	Yielding to Temptation; Analyzing Billboard Advertisement and House hold Consumers Perception in Pakistan	Academy of Marketing Studies Journal	24(1)	Sunday, March 1, 2020
Dr. Zargham Ullah Khan	Socio- Economic Significance of CPEC prospects of Intra and Inter-region coop and challenges	Global Economics Review	5(1)	Wednesday, April 1, 2020
Dr. Waqas Farooq	Conceptualizing Organizational Resilience at an SME level	International Journal of Psychosocial Rehabilitation	24 (7)	Wednesday, April 1, 2020
Dr. Mubbsher Munawar Khan	Work-Family Conflict and Job Dissatisfaction among Police Officers: Mediation of Threat to Family Role and Moderation of Role Segmentation Enhancement	Policing: An International Journal	43(2)	Wednesday, April 1, 2020
Dr. Waqas Farooq	Relating ethical leadership with work engagement: How workplace spirituality mediates?	Cogent Business and Management	7(1)	Friday, May 1, 2020
Dr. Zargham Ullah Khan	Impact of Abusive Supervision on Work Engagement: Mediation by Organizational Justice and Moderation by Resilience	Pakistan Social Sciences Review	4(2)	Monday, June 1, 2020
Dr. Ahmed Muneeb Mehta	Impact of Ethical Leadership on Organizational Commitment and Organizational Citizenship Behavior with Mediating role of Intrinsic Motivation	International Review of Management and Marketing	10(4)	Monday, June 1, 2020
Dr. Farah Naz	Can Cognitive Crafting Enhance Business Performance? The Mediating Role of Employee Ambidexterity in the Context of Small and Medium Enterprises	International Journal of Management Research and Emerging Sciences	10(2)	Monday, June 1, 2020
Dr. Mubbsher Munawar Khan	Engaging Police Workforce through Leadership: Explanatory Role of Four-Dimensional Commitment	<i>Journal of the Research Society of Pakistan</i>	57(1)	Monday, June 1, 2020
Dr. Ahmed Muneeb Mehta	Risk Management Amidst COVID-19 by Pakistani Universities. A Study of University of the Punjab	Journal of Management, information and Decision Science	23(3)	Wednesday, July 1, 2020
Dr. Ahmed Muneeb Mehta	False beliefs or False Positives? Influence of Green Innovation on Organizational Performance in Pakistan	Journal of Management, information and Decision Science	23(3)	Wednesday, July 1, 2020
Dr. Ahmed Muneeb Mehta	Is Smartphone Loafing Energizing, Creative, Innovative And Productive at the Workplace?	Academy of Marketing Studies Journal	24(3)	Wednesday, July 1, 2020
Dr. Ahmed Muneeb Mehta	Impact of Emotional Labor Strategies on Emotional Exhaustion: Mediating effect of Anxiety in Pakistani Hotel Industry	Academy of Marketing Studies Journal	24(3)	Wednesday, July 1, 2020



Dr. Ahmed Muneeb Mehta	Dynamic Capabilities, Competitive Advantage, and Business Performance: An Integrative Model, Literature Review and research Propositions	Academy of Strategic Management Journal	19(4)	Saturday, August 1, 2020
Dr. Ahmed Muneeb Mehta	Combating Child Labour with Micro Credit Finance; Experience in Pakistan	Academy of Accounting and Financial Studies Journal	24(4)	Saturday, August 1, 2020
Dr. Ahmed Muneeb Mehta and Dr. Farah Naz	Predicting Work Performance: A Paradigm Shift from Organization's Empowerment to Employees' Autonomous Strategy	Academy of Strategic Management Journal	19(4)	Saturday, August 1, 2020
Dr. Ahmed Muneeb Mehta	The Culprit - From Emotional Abuse to Emotional Assault Caused by Downward Workplace Mobbing	Journal of Legal ,Ethical and Regulatory issues	23(4)	Saturday, August 1, 2020
Dr. Ahmed Muneeb Mehta and Dr. Farah Naz	Pakistan's Political Economy and Stock Market Returns	Academy of Accounting and Financial Studies Journal	24(4)	Saturday, August 1, 2020
Dr. Ahmed Muneeb Mehta and Dr. Farah Naz	Are Engaged Employees More Satisfied and Personally Attached? A Process Model Approach	Academy of Strategic Management Journal	19(4)	Saturday, August 1, 2020
Dr. Waqas Farooq	Exploring the Role of Technological Interventions in Consumer Buying Behavior	Foundation University Journal of Business & Economics	5(2)	Saturday, August 1, 2020
Dr. Ahmed Muneeb Mehta	Measuring SME's Productivity Using Social Media: Role of Entrepreneurship	International Journal of Entrepreneurship	24(3)	Tuesday, September 1, 2020
Dr. Ahmed Muneeb Mehta	A Stitch in Time Saves Nine; Understanding Developmental HRM Practice and Affective Commitment through Psychological Contracts	Journal of Management, information and Decision Science	23(4)	Tuesday, September 1, 2020
Dr. Ahmed Muneeb Mehta	An Institution based View towards Innovation Strategy and Knowledge Management in the European Region	Journal of Management, information and Decision Science	23(4)	Tuesday, September 1, 2020
Dr. Farah Naz	Improving Organizational Climate Perceptions through Organizations Retention Strategy. The Moderating Role of Organizational Hierarchy	International Journal of Management Research and Emerging Sciences	10 (3)	Tuesday, September 1, 2020
Dr. Mubbsher Munawar Khan	Effectiveness of Social Media Platform: A Perspective of Customer Purchase Intention through Social Networking in the Pakistani Context	International Review of Management and Marketing	10(5)	Tuesday, September 1, 2020



- **Conferences, Seminars and Workshops, etc.** (sponsors, oral Presentation + Poster Presentation)
4th International Conference on Banking, Insurance and Business Management.
- **Research Journals**
International Journal of Business Reflections ISSN: 2708-9304

RESEARCH COLLABORATION

MOU between HITIT University and Hailey College of Banking and Finance.

HAILEY COLLEGE OF COMMERCE

○ Publications

Prof. Dr. Zulfqar Ahmad Bowra

Title of Research paper	Publishing Journal	Vol
Role of Training and Development on Employee Retention and Organizational Commitment in the Banking Sector of Pakistan	Review of Economics And Development Studies	(2020)6(3), 639-650
Hr Practices and Employee Retention in the Banking Sector of Pakistan	Journal of Accounting and Finance In Emerging Economies	2020).6(3), 787-798

Prof. Dr. Mubbsher Munawar Khan

Title of Research paper	Publishing Journal	Vol
Work-Family Conflict And Job Dissatisfaction Among Police Officers: Mediation of Threat to Family Role And Moderation of Role Segmentation Enhancement	Policing: An International Journal	(2020).43(2), 403-415
Evaluation of Consumer Purchase Intention towards Halal Endorsed Products in Pakistan	International Journal Of Islamic Marketing And Branding	(2020)
Effectiveness Of Social Media Platform: A Perspective Of Customer Purchase Intention Through Social Networking In The Pakistani Context	International Review Of Management And Marketing	(2020) 10(5), 85-91
Extension Of Technology Continuance Theory (Tct) With Task Technology Fit (Ttf) In The Context Of Internet Banking User Continuance Intention	International Journal Of Quality & Reliability Management.	(2020)

Dr. Sayyid Salman Rizavi

Title of Research paper	Publishing Journal	Vol
Toward the Application of Digital Strategy in Business Firms in Pakistan. An Analysis of Focus Group Discussion.	A Research Journal of Commerce, Economics, and Social Sciences,	(2020) 14(1), 109-116

*Dr. Hafiz Zafar Ahmad*

Title of Research paper	Publishing Journal	Vol
Challenges, Strategies and Outcomes of Transformational Leadership in Acquisition: The Case of Bank Islami Pakistan Limited.	A Research Journal of Commerce, Economics, and Social Sciences	2020). SI(1), 57-65
Religion, Spirituality and Foreign Policy Dynamics: A Case Study of Relations between Pakistan and Saudi Arabia..	Journal of the Research Society of Pakistan	(2020).57(1), 229-337
Impact of Liquidity Risk and Funding Liquidity Risk on Risk Taking of Pakistani Banking Industry,.	A Research Journal of Commerce, Economics, and Social Sciences,	(2020).14(1), 80-85

Dr. Ishfaq Ahmad

Title of Research paper	Publishing Journal	Vol
How Effectively Safety Incentives Work? A Randomized Experimental Investigation	Safety And Health At Work.	(2020)
As You Sow, So Shall You Reap: Finding Customer-Based Outcomes Of Socially Responsible Coffee Cafés	British Food Journal	(2020) 122 (9), 3009-3025
“Do Good, Have Good”: A Mechanism Linking Csr With Customers’ Perceptual, Attitudinal And Behavioral Outcomes.	Frontiers In Psychology	(2020)., 11: 598
Predicting Entrepreneurial Intentions Through Self-Efficacy, Family Support, And Regret: A Moderated Mediation Explanation	Journal of Entrepreneurship In Emerging Economies	(2020)

Dr. Rizwan Qaiser Danish

Title of Research paper	Publishing Journal	Vol
How Corporate Social Responsibility Boosts Firm Financial Performance: The Mediating Role of Corporate Image and Customer Satisfaction	Corporate Social Responsibility and Environmental Management	(2020) 27(1), 166-177
Effects Of Sustainable Brand Equity And Marketing Innovation On Market Performance In Hospitality Industry: Mediating Effects Of Sustainable Competitive Advantage. Sustainability	https://doi.org/10.3390/Su12072939	(2020) 12(7), 2939
Empirical Study of The Impact of Brand Name on Market Performance Through Sustainable Competitive Advantage And Brand Loyalty As Moderator in Pakistani Context	European Online Journal of Natural And Social Sciences	(2020) 9(1), 30.
The Impact of Green Entrepreneurial Orientation on Firm Performance Through Green Innovation: The Moderating Role of Strategic Green Marketing Orientation	European Online Journal of Natural And Social Sciences	(2020) 9(2), 306-318.



Impact of Ethical Leadership on Organizational Commitment and Organizational Citizenship Behavior With Mediating Role of Intrinsic Motivation	International Review of Management And Marketing	(2020)10(4), 25-30
Destructive Leadership And Counterproductive Work Behavior With Mediation Mechanism of Information Silence: Evidence From Tanner Sector of Pakistan	International Review of Management and Marketing	(2000) 10(4), 83-88.
Are Engaged Employees More Satisfied and Personally Attached? A Process Model Approach	Academy of Strategic Management Journal	(2020) 19(3)
Destructive Leadership Constructs and Counterproductive Work Behavior: Evidence From Tanner Sector of Pakistan;	Orient Research Journal of Social Sciences	(2020) Vol. X, No. Y, Xxx
Relationship of Machiavellian Leadership to Counterproductive Work Behavior With Mediating Mechanism of Justice Perceptions: Evidence from Tanner Sector of Pakistan	Academic Journal Of Social Sciences	(2020)4(3.
Relating Market Orientation to Sales Person Outcome Performance: Empirical Evidence From Pharmaceutical Industry	Academy Of Strategic Management Journal	2020). 19(5

Dr. Muhammad Aamir

Title of Research paper	Publishing Journal	Vol
Impact Of Knowledge Sharing Behavior On Performance Of Auditing Firms In Pakistan: Moderating Role Of Organizational Culture	International Journal of Psychosocial Rehabilitation	2020).24(6), 9312-9331

Dr. Muhammad Usman

Title of Research paper	Publishing Journal	Vol
Ownership Structure and Business Firm Value: A Study of Non-Financial Sector of Pakistan	South Asian Journal of Management Sciences,	(2020)14(1), 61-81

Lubna Uzair

Title of Research paper	Publishing Journal	Vol
The Epoch of Free Trade Agreements In Pakistan and Predominance of China	The Chinese Economy	(2020) 53(5) 395-411

Dr. Fouzia Hadi Ali

Title of Research paper	Publishing Journal	Vol
Improving Organizational Climate Perceptions Through Organization's Retention Strategy. The Moderating Role Of Organizational Hierarchy, ,	International Journal of Management Research and Emerging Sciences	(2020).10(3), 10-15



Managers' Open Innovation and Business Performance in SMEs: A Moderated Mediation Model of Job Crafting and Gender.	Journal of Open Innovation, Technology, Markets and Complexity	2020)6, 89;
Assessing the Mediating Role of Work Engagement Between the Relationship of Corporate Social Responsibility with Job Satisfaction and Organizational Citizenship Behavior	International Review of Management and Marketing	2020)10(4), 1-10
Demographic and socio-economic differences in financial information literacy among university students	Information Development	(2020)1-13
Is smartphone loafing energizing, creative, innovative and productive at the workplace.	Academy of Marketing Studies Journal	24(3).
Can cognitive crafting enhance business performance? the mediating role of employee ambidexterity in the context of Small and Medium Enterprises, ,	International Journal of Management Research and Emerging Sciences	(2020).10(2), 85-95.
Dynamic managerial capabilities, competitive advantage and business performance: an integrative model, literature review and research propositions,	Academy Of Strategic Management Journal,	2020).19(4).
Predicting work performance: A paradigm shift from organization's empowerment to employee's autonomous strategy,	Academy of Strategic Management Journal,	(2020). 19(4).
Risk management amidst Covid-19 by Pakistani universities: A study of University of the Punjab.	Journal of Management Information and Decision Sciences	(2020).23(3).
Examining the antecedents and consequence of smartphone loafing at workplace: testing a moderated sequential mediation model.	International Journal of Management Research and Emerging Sciences	(2020).10(1), 156-167

Dr. Sadia Farooq

Title of Research paper	Publishing Journal	Vol
Role of Women at Top Management in Public Sector Universities of Islamabad, Pakistan.,	Journal of the Research Society of Pakistan	2020).57(1), 181-194.
Combatting child labour with micro credit finance: Experience in Pakistan.	Academy of Accounting and Financial Studies Journal	(2020).24(4), 1-8
Assessment of financial technology services for value co-creation or value co-destruction in emerging economies: ISPAR model.,	International Journal of Management	2020)11(9), 238-256.

Hafiz Abdur Rashid

Title of Research paper	Publishing Journal	Vol
Analyzing the impact of intellectual capital on financial performance of food & personal care textile sectors: A comparative analysis.,	Pakistan Economic and Social Review	2020). 58(1), 35-66.



○ **Books/ Edited**

Sr	Name of Author	Title	Publisher	Year
1	Dr. Hassam Mobeen Alam	Money, Banking and Finance	Syed Mobeen & Co. Lahore	Revised Edition 2019-2020
2	Dr. Zulfaq Ahmad Bowra	Business Mathematics & Statistics	Jadeed Book Depot, Lahore	Revised Edition 2019-2020
3	Dr. Sayyid Salman Rizavi	Introduction to Economics	Syed Mobeen & Co. Lahore	Revised Edition 2019-2020
4	Dr. Hafiz Zafar Ahmad	Cost Accounting	Jadeed Book Depot, Lahore	Revised Edition 2019-2020
5	Shafique, Azam.	Fundamentals of Financial Accounting	Muhammad Farukh Hanif P.P	Revised Edition 2019-2020

○ **Conferences, Seminars and Workshops, etc. (Sponsors, oral Presentation + Poster Presentation)**

Date	Topic
7-Nov-2019	Building Sustainable Business through Research and Knowledge-based Economy
28-Nov-2019	Entrepreneurship as a Viable Career Option
29-Nov-2019	Small Business Startup and Management
5-Dec .2019	Import Policies and Procedures
6-Dec-2019	Export Marketing: Practices and Procedures
12-Dec-2019	Seerat Quiz Competition
13-Dec-2019	Qiraat Competition
13-Dec-2019	Naat Competition
30-Jun-2020	Webinar on Enhancing the Effectiveness of Institutional Investors as Powerful Gadget
7-Nov-2019	Building Sustainable Business through Research and Knowledge-based Economy
28-Nov-2019	Entrepreneurship as a Viable Career Option

○ **Research Journals**

Research Journal of Commerce

Hailey College Published Annual Journal Al-Iqtisad

RESEARCH COLLABORATION

○ **Indigenous Scholarship**

HEC funding for M.Phil and Ph. D. Students

○ **Funding Grants for R&D**

HEC and University of the Punjab

Faculty of Economics & Management Sciences

DEPARTMENT OF ECONOMICS

The Department of Economics was actively involved in research and development during October 2019 to September 2020 as it initiated research collaboration process with Universities in France and Germany, signed MOU with Centre of Excellence for China Pakistan Economic Corridor, PIDE.



The faculty participated in national and international conferences, successfully, published research papers in HEC recognized journals, supervised M.Phil. and Ph.D. research work.

○ **Publications:** Books / Edited / Report

Prof. Dr. Mumtaz Anwar Ch. was recognized for his valuable contribution as author of a book titled “Analyzing the Land Utilization Patterns in Punjab using LRMIS Data” published by Punjab Economic Research Institute (PERI) Lahore, Planning and Development Department, Government of Punjab.

○ **Research Publication Statistics by Faculty of Department of Economics**

Name	Research papers (With Impact Factor)	Research papers (HEC Recognized Journals)	Total
Prof. Dr. Mumtaz Anwar Ch.	01	---	01
Prof. Dr. Abdul Salam	---	02	02
Dr. Azmat Hayat	---	01	01
Dr. Atif Khan Jadoon	01	---	01

○ **Conferences, Seminars and Workshops, etc.**

Seminars / Workshops Arranged by Department of Economics

- Organized a workshop on “Mainstreaming the SDGs within Teaching and Students’ Learning Experience” on 21-02-2020.
- Organized a workshop on “Research Methodology” on 05-03-2020.
- Organized a seminar on “Building Sustainable Business through Research and Knowledge Based Economy” on 08-11-2019.
- Organized a seminar on “Promoting and Protecting the Rights of Older Persons in Pakistan” in collaboration with PERI on 19-08-2019.
- Organized a seminar on panel discussion “How the Poor are excluded from Social Mobility” on 13-01-2020.
- Organized book launch “Making Sense of Joan Robinson on China” on 04-02-2020.
- Organized one day symposium on “Women Economic Empowerment – Evidence Based Policy” on 13-02-2020.

Training Workshops/Symposium Attended by Faculty

- Dr. Asma Awan participated in training workshop on “NRPU Project Development Capacity Building Workshop” organized by COMSAT University on 23-12-2019.
- Dr. Fareena Noor Malhi participated in Geo4Dev Symposium and workshop, arranged online by CEGA and Geo4Dev from 10th - 11th Dec.
- Mr. Ghulam Mujaddid attended training workshop on “How to Manage Your References Using RefWorks” organized by ProQuest in collaboration with HEC on 17-08-2020.

○ **Research Journal**

Pakistan Economic and Social Review (PESR) is a bi-annual journal (X - Category) of Department of Economics and it is indexed and/or abstracted in the IBSS (International



Bibliography of the Social Sciences), BAS (Bibliography of Asian Studies), International Bibliography of EconLit, Cabell's Directories, EBSCO, Index Copernicus, ULRICH's periodicals Directory, DRJI and LabourDoc. In June 2020, PESR is categorized as Y-category journal as per new policy of HEC.

DEPARTMENT OF INFORMATION MANAGEMENT

○ **R&D-An Overview**

Department of Information Management published its HEC recognized journal "Pakistan Journal of Information Management & Libraries "(PJIM & L) and the faculty's research got published in national and international journals.

○ **Publications: Book / Edited**

Prof. Dr. Khalid Mahmood

- Islam, T. Mahmood, K., Sadiq, M., Usman, B., & Yousaf, S. U. (2020). Understanding knowledgeable workers' behavior toward COVID-19 information sharing through WhatsApp in Pakistan. *Frontiers in Psychology*. [Switzerland]. [Impact Factor=2.067].
- Javaid, J., Soroya, S., Mahmood, K. (2020). Impact of personal and organizational factors on knowledge sharing attitude of university teachers in Pakistan. *The Electronic Library*, 38(2), 317-36. [UK]. [Impact Factor=0.886].
- Yousaf, A., & Mahmood, K. (2020). To what extent Pakistani citizens are enjoying the right of access to information? An exploratory study. *Library Philosophy and Practice (e-journal)*, 1-22. [USA].
- Safdar, M., Mahmood, K., & Batool, S. H. (2020). Factors affecting knowledge sharing: A review of Pakistani literature. *Pakistan Library & Information Science Journal*, 51(2), 18-26. [Karachi].

Dr. M. Rafiq

- Jabeen, M., Qinjian, Y., Imran, M., Jabeen, M., & Rafiq, M. (2020). Contextual variables explaining the influence of social networking sites for information communication among library users: Cross-cultural study between China and Pakistan using Structure Equation. <https://doi.org/10.1177/0961000619836721> (Impact Factor 1.479)
- Rafiq, M., Ali, S. & Khan, M.T. (2020). Information Literacy Instructions in University Libraries of Lahore, Pakistan: Practices and Methods. *Library Philosophy and Practice (e- journal)*. 4511. <https://digitalcommons.unl.edu/libphilprac/4511/>
- Ahmad S., Rafiq, M., & Ahmad, S. (2020). Incorporating the Internet in learning by the management science students and its effect on their academic achievements. *Library Philosophy and Practice (e-journal)*. 4127 <https://digitalcommons.unl.edu/libphilprac/4127>

Dr. Nosheen Fatima Warraich

- Faiza Bashir & Nosheen Fatima Warraich (2020): Systematic literature review of Semantic Web for distance learning, *Interactive Learning Environments*, 29(2). DOI: 10.1080/10494820.2020.1799023 (IF=1.938)



- Ali, I. and Warraich, N.F. (2020), The relationship between mobile self-efficacy and mobile-based personal information management practices: A systematic review, *Library Hi Tech*, 39(1). <https://doi.org/10.1108/LHT-06-2019-0116> (IF= 1.218)
- Ali, A. F., & Warraich, N. F. (2020). Integration of Open Educational Resources Through Linked Data: Challenges and Benefits Review. *Library Philosophy and Practice*, 1-19.
- Ahmad, Z., & Warriach, N. F. (2020). Civic Engagement through Open Government Data: Challenges and the Way Forward. *Library Philosophy and Practice*, 1-15.
- Warraich, N. F., Rorissa, A., & Rasool, T. (2020). An in-depth qualitative study of Pakistani academic library professionals' conceptions of linked data technology. *Information Discovery and Delivery*. Vol. ahead-of-print No. ahead-of-print.
- Amina, W., Warraich, N.F. and Malik, A. (2020), Usage of and learning from Wikipedia: a study of university students in Pakistan, *Global Knowledge, Memory and Communication*, Vol. ahead-of-print No. ahead-of- print. <https://doi.org/10.1108/GKMC-04-2020-0042>

Dr. Hina Batool

- Zaheer, M., Batool, S.H., Soroya, S. & Khalid, A. (2020). Exploring Users' Perceptions and Expectations about Library Service Quality. *Qualitative and Quantitative Methods in Libraries* 9 (3), 325-342.
- Safdar, M., Batool, S.H. & Mahmood, K. (2020). Factors affecting knowledge sharing: A review of Pakistani literature. *Pakistan Library & Information Science Journal* 51, 18-26.
- Safdar, M., Batool, S.H. & Mahmood, K. (2020). Relationship between self-efficacy and knowledge sharing: systematic review. *Global Knowledge, Memory and Communication*. DOI. <https://doi.org/10.1108/GKMC-11-2019-0139>

Dr. Alia Arshad

Comparative analysis of academic scientists, social scientists and humanists' scholarly information seeking habits, *The Journal of Academic Librarianship*, Volume 4, 2020.

Dr. Saira Soroya

- Saira H. Y Iqbal, K Mahmood. (2020). Predictors of information literacy self-efficacy among medical students: PLS-SEM analysis. *Library Hi tech*.
- Mushtaq, S; Saira H. & Mahmood, K. (2020). Reading habits of Generation Z students in Pakistan: Is it the time to re-examine the school library services? *Information Development*.
- Saira H., Ilyas, A and Ameen, K. (2020). Understanding Information Behavior of Diabetic Patients: A Case of the Diabetic's Institute Pakistan. *Library Management*.
- Maria Z, Hina B., Saira H. and Khalid, A. (2020). Exploring Users; Perceptions and Expectations about Library Service Quality: A Case of Mirpur University of Science & Technology (MUST). *QQML Journal*
- Awan, W. A, K. Ameen, & Saira H. (2020), Research Information Encountering and Keeping Behaviour of Post-Graduate Students of Social Sciences in an Online Environment. *Online Information Review*.



- Hassan, S; Saleem, A; Saira H.; et al. (2020). Sentiment Analysis of Tweets through Altmetrics: A Machine Learning Approach. *Journal of Information Science*.
- Saira, H., & Ameen, K. (2020). Subject-Based Reading Behaviour Differences of Young Adults Under Emerging Digital Paradigm. *Libri*.
- Saira H & Ameen, K. (2020). Millennials' Reading Behavior in the Digital Age: A case of Pakistani University Students. *Library Administration*.
- Javaid, J., Saira, H. & Mahmood, K. (2020). Impact of personal and organizational factors on knowledge sharing attitude of university teachers in Pakistan. *The Electronic Library*.

Dr. Amara Malik

- Malik, A., & Ameen, K. (2020). The employment landscape and LIS education in Pakistan: challenges and prospects. *Global Knowledge, Memory and Communication*.
 - Malik, A., & Ameen, K. (2020). Attracting Prospective Students to Master's Program: A Dilemma for Library and Information Science Education.
 - Amina, W., Warraich, N.F. and Malik, A. (2020), Usage of and learning from Wikipedia: a study of university students in Pakistan, *Global Knowledge, Memory and Communication*, Vol. ahead-of-print No. ahead-of- print. <https://doi.org/10.1108/GKMC-04-2020-0042>
 - Malik, A., & Ameen, K. (2020). Quality Assurance and LIS Programs in Pakistan: Practices and Prospects. *portal: Libraries and the Academy*, 20(2), 237-254.
 - Warraich, N. & Malik, A. (2019). Managing and preserving indigenous newspapers in an information management era: a case of a developing country. *The Serials Librarian*. DOI: 10.1080/0361526X.2019.1677543.
- **Conferences, Seminars and Workshops, etc.** (Sponsors, Oral Presentation + Poster Presentation)

Dr. Khalid Mahmood

- Presented paper in the International Conference on "Re-imagining the Silk Road: Pakistan and Kyrgyzstan in the age of connectivity" organized by Lahore Center for Peace Research, Bishkek, Kyrgyzstan, Dec. 10-11, 2020.
- Participated as a resource person in a Webinar on "How to publish your research in quality journals?" organized by University of Education, Lahore, Dec. 16, 2020.
- Participated as a resource person in the Webinar on "How to prepare for interview" organized by Pakistan Librarians Welfare Organization, Lahore, Dec. 6, 2020.
- Participated in the "International Conference of Business and Commerce" organized by Hailey College of Commerce, University of the Punjab, Lahore, Nov. 24-25, 2020.
- Participated as resource person and gave two lectures in a faculty development program organized by University of Okara, Okara, Sep. 11, 2020.
- Gave a presentation in the International Webinar on "Role of library in Covid-19 pandemic" organized by Pakistan Librarians Welfare Organization, Lahore, Jun. 13, 2020.



- Participated in the 2nd International Conference on “Emerging Issues in Information Landscape” organized by University of Sargodha, Apr. 20-21, 2020.
- Attended workshop on SPSS organized by Institute of Business Administration, University of the Punjab, Lahore, Mar. 7, 2020.
- Participated as resource person in a workshop on “Research Methodology” organized by Department of Economics, University of the Punjab, Mar. 5, 2020.
- Participated as resource person in a workshop on “Systematic Literature Review” organized by University of Sargodha, Sargodha, Feb. 3, 2020.
- Participated as resource person in the workshop on “Systematic review” organized by Shalamar Medical & Dental College, Lahore, Jan. 27, 2020.
- Participated as resource person in the workshop on “Research Proposal Writing” organized by University of Management & Technology, Lahore, Jan. 18, 2020.

Dr. M. Rafiq

- Sultan, M., & Rafiq, M. (Sep. 30-Oct, 2020). Open access and university libraries: Analysis of awareness, perceived challenges and opportunities. IX Eurasian Academic Libraries Conference. Kazakhstan: Nazarbayev University, Kazakhstan.
- Sultan, M., Rafiq, M. (April 20-21, 2020). Open Access Information Resources in University Libraries: Involvement, Selection, Organization and Access. 2nd International Conference on Emerging Issues of Information Landscape (ICEIL-II-2020). Sargodha: University of Sargodha.
- Farid, G., & Rafiq, M. (April 20-21, 2020). Attitude of health care professionals regarding utilizing the resources for seeks of medical images. 2nd International Conference on Emerging Issues of Information Landscape (ICEIL-II-2020). Sargodha: University of Sargodha.

Dr. Nosheen Fatima Warraich

- Wahid, N., Warraich, N.F. and Tahira, M. (2020). Group level scientometric analysis of Pakistani authors, presented at Second International Conference on Science; Technology Metrics (STMET 2020), Chinese Academy of sciences, Zhuhai: China

Dr. Hina Batool

- Presented a paper titled Copyright literacy and Information Literacy: Analyzing, the Awareness and Perceptions, at International Conference on Emerging Issues of Information Landscape (ICEIL), Pakistan, April 21, 2020.
- Participated as resource person in AMCAP doctoral spring school 2020 and delivered lecture on Managing Citations: An Intro to Mendeley Software, IQTM, University of the Punjab, March 3rd 2020.

Dr. Saira Soroya

- Speaker, one day workshop on “Effective Synopsis Development?” organized by Minhaj University, Lahore on 02 December 2020.



- Trainer, One-day Hands-on training workshop on “Digital Literacy Skills” organized by University of Home Economics, Lahore on 08 September 2020.

Dr. Amara Malik

- Presented a paper titled Information needs and seeking behaviour of Dengue patients, at International Conference on Emerging Issues of Information Landscape (ICEIL), Pakistan, April 21, 2020.

INSTITUTE OF ADMINISTRATIVE SCIENCES

○ **Research & Development**

Maintaining its sound track record, Institute of Administrative Sciences has made immense contribution by publishing its research in various national and international journals. In addition to these literary contributions, the faculty members of IAS have also been awarded research project grants to accomplish their academic research interests. The details of our faculty's research publications along with the author and journal name are mentioned below.

○ **Publication: Book/Edited**

Sr.	Author	Title	Journal	Date
1.	Dr. Yaamina Salman Dr. Sidra Irfan Dr. Nasira Jabeen	Smart cities- A multidisciplinary model	A research Journal of south Asian studies Vol. 33(2)	2019
2.	Dr. Amani Moazzam	Work life balance as a mediator between employability and subjective career success	Journal of Behavioral Science Vol. 29 (2)	2020
3.	Dr. Amani Moazam Dr. Sidra Irfan	Sources of innovation in social enterprises working in Pakistan	Journal of Research Society of Pakistan Vol. 57(2)	2020
4.	Dr. Ayesha Sarfraz Khan	Role Of Women Entrepreneurs in Economic Activities	PalArch's Journal of Archaeology of Egypt /Egyptology Vol. 17 6)	
5.	Dr. Ayesha Sarfraz Khan	Mumpreneurs And SMES: Problems ,Prospects and Challenges	PalArch's Journal of Archaeology of Egypt /Egyptology vol.17 (6)	
6.	Dr. Ayesha Sarfraz Khan	Relating Market Orientation to Salespersons Outcome Performance	Academy of Strategic Management Journal Vol. 19 (5)	
7.	Dr. Ayesha Sarfraz Khan	Women Leadership & Organizational BARRIERS: A Socio-Economic And Ethical Point Of View	Journal of Legal, Ethical and Regulatory Issues Vol.23 (5)	
8.	Dr. Sobia Khurram	Societal E-Readiness For E-Governance Adaptability In Pakistan	Pakistan Journal of Commerce and Social Sciences Vol. 14	



9.	Dr. Sobia Khurram	Self-Efficacy And Innovative Work Behavior: The Role Of Individual Ambidexterity And Formalization At Work Place In Pakistan	Journal of Research Society of Pakistan Vol. 57(1)	
10.	Dr. Sobia Khurram	Can Government's Presence On Social Media Stimulate Citizens' Online Political Participation? Investigating The Influence Of Transparency, Trust, And Responsiveness	Government of Information Quarterly Vol. 37 (3)	
11.	Dr. Ahmad Usman	Re-investigation of the resource curse hypothesis : the role of political institutions and energy prices in BRIC countries	Resource Policy(69)	
12.	Dr. Ahmad Usman	Work-family conflict and job dissatisfaction among police officers	Policing : An International Journal Vol. 43(2)	
13.	M. Zeeshan Hanif Ayesha Hanif Dr. Ghalib Ata Dr. Kashif Rathore	Formal and Multiple Autonomies in State-Owned Enterprises in Pakistan: An Analysis of Formal and Actual Status	Journal of Political Studies Vol. 27(1)	
14.	Dr. Yaamina Salman	Debate: Governance networks for public service delivery panacea or puzzle?	Public Money & Management	
15.	Dr. Sidra Irfan	Impact of public service motivation and organizational Social capital on knowledge sharing in public sector.	Governance and Management Review Vol 5 (2)	
16.	Dr. Yaamina Salman Dr. Sidra Irfan	Exploring the influence of HRM practices on employee motivation in public organization: A Systematic Literature Review	Journal for Academic & Corporate studies (GMJACS) Journal for Academic & Corporate studies (GMJACS) Vol. 10 (1)	
17.	Mr. Mubeen Khalid	Comparative analysis of customer satisfaction & AMP : its effect on financial growth	Journal of Research and Analytical Reviews Vol. 7(1)	
18.	Dr. Kashif Rathore	Challenges and opportunities of China Pakistan Economic Corridor (CPEC) for Pakistan	Pakistan Vision Vol. 21 (1)	
19.	Dr. Kashif Rathore	Formal and multiple autonomies in state-owned enterprises in Pakistan	Journal of Political Studies Vol 27 (1)	



20.	Dr. Ali Rehman	Chicken or the Egg of Nation Branding and Economic Development	Governance and Management Review (GMR) Vol. 4 (2)	2019
21.	Dr. Sajid Nazir	Determining Indirect Cost of Financial Distress in Banking Sector of Pakistan	Paradigms (14)	2020
22.	Dr. Sajid Nazir	Testing for Temperature Anomaly in Capital Markets of Pakistan and India	Middle East Journal of Management (7)	2020
23.	Dr. Sajid Nazir	Investing in CSR pays you back in many ways! The case of perceptual, attitudinal and behavioral outcomes of customers	Sustainability (12)	
24.	Dr. Sajid Nazir	Do rational bubbles exist in emerging markets of SAARC	Journal of Economic and Administrative Sciences (36)	2019
25.	Dr. Sajid Nazir	Do Good, Have Good”: A Serial Mediation Analysis of CSR with Customers’ Outcomes	Frontiers in Psychology (11)	
26.	Dr. Sajid Nazir	Do stock price bubbles correlate between China and Pakistan? An inquiry of pre- and post-Chinese Investment in Pakistani Capital Market under CPEC Regime	International Journal of Finance and Economics (25)	2019
27.	Dr. Sajid Nazir	Cognitive Bias and the Extraversion Personality Shaping the Behavior of Investors	Frontiers in Psychology (11)	
28.	Dr. Sajid Nazir	How Investors Attitudes Shape Stock Market Participation in the presence of Financial Self-Efficacy	Frontiers in Psychology (11)	
29.	Dr. Sajid Nazir	Efficiently monitoring the ship of financially distressed companies sinking in Iron law of earnings management: evidence from Pakistan	Cogent Economics & Finance (8)	

INSTITUTE OF BUSINESS ADMINISTRATION

○ Publications

- Prof. Dr. Muqqadas Rehman, Director-IBA, Muhammad Rizwan Sabir & Waheed Asghar (2020). Assessing the Mediating Role of Organization Learning Capability between the Relationship of Green Intellectual Capital and Business Sustainability. Journal of Business and Social Review in Emerging Economies. 6(4): 1289-1300



- Prof. Dr. Muqqadas Rehman, Director-IBA, & Haleema Tariq (2020). An Empirical Analysis of Organizational Performance of Construction Companies in Pakistan through Mediating Role of Conflict Management Effectiveness. *Review of Economics and Development Studies*. 6(2): 471-484
- Prof. Dr. Muqqadas Rehman, Director-IBA, Prof. Dr. Ch. Abdul Rehman & Kashif Mahmood (2020). Improving Supply Chain Performance through Supplier Relationship Management: A Moderating Model of Knowledge Management Practices in Automobile Sector of Pakistan. *Orient Research Journal of Social Sciences*. 5(2):129-150
- Dr. Rizwan Qaiser Danish – Associate Professor-IBA, Hafiz Yasir Ali & Muhammad A Haq (2020). How corporate social responsibility boosts firm financial performance: The mediating role of corporate image and customer satisfaction, WILEY, SSCI. *Corporate Social Responsibility and Environmental Management*. 27(1):166-177.
- Dr. Rizwan Qaiser Danish – Associate Professor-IBA, Ijaz Hussain, M Mohiuddin & Sharafat Ali Sair (2020). Effects of Sustainable Brand Equity and Marketing Innovation on Market Performance in Hospitality Industry: Mediating Effects of Sustainable Competitive Advantage. *Sustainability*. 12(7): 2939; <https://doi.org/10.3390/su12072939>
- Dr. Rizwan Qaiser Danish – Associate Professor-IBA, Ijaz Hussain, Sharafat Ali Sair & Ahmad Muneeb Mehta (2020). Empirical Study of the Impact of Brand Name on Market Performance through Sustainable Competitive Advantage and Brand Loyalty as Moderator in Pakistani Context. *European Online Journal of Natural and Social Sciences*. 9(1):30-45.
- Dr. Rizwan Qaiser Danish – Associate Professor-IBA & Sami Ullah (2020). The Impact of Green Entrepreneurial Orientation on Firm Performance through Green Innovation: The Moderating Role of Strategic Green Marketing Orientation. *European Online Journal of Natural and Social Sciences*. 9(2):306-317.
- Dr. Rizwan Qaiser Danish – Associate Professor-IBA, Dr. Muhammad Ali – Assistant Professor, Hafiz Fawad Ali, Ahmad Muneeb Mehta & Muhammad Bilal Ahmad (2020). Impact of Ethical Leadership on Organizational Commitment and Organizational Citizenship Behavior with Mediating role of Intrinsic Motivation. *International Review of Management and Marketing*. 10(4):25-30 DOI: 10.32479/irmm.9840
- Dr. Rizwan Qaiser Danish – Associate Professor-IBA, Sohail Ahmad & Kashif Rathore (2020). Destructive Leadership and Counterproductive Work Behavior with Mediation Mechanism of Information Silence: Evidence from Tanner Sector of Pakistan. *International Review of Management and Marketing*. 10(4):83-88 DOI: <https://doi.org/10.32479/irmm.9948>
- Dr. Rizwan Qaiser Danish – Associate Professor-IBA, Ahmad Muneeb Mehta, Farah Naqvi, Hina Saleem & Farid Ahmad (2020). Are Engaged Employees More Satisfied and Personally Attached? A Process Model Approach. *Academy of Strategic Management Journal*. 19(4):online
- Dr. Rizwan Qaiser Danish – Associate Professor-IBA, Ahmad Muneeb Mehta, Muhammad Ramzan & Muhammad Usman (2020). Relating Market Orientation to



Sales Person Outcome Performance: Empirical Evidence from Pharmaceutical Industry. Academy of Strategic Management Journal. 19(5):online

- Dr. Rizwan Qaiser Danish – Associate Professor-IBA, Dr. Labiba Sheikh, Assistant Professor-IBA, Sohail Younas, Sharafat Ali Sair & Muhammad Ramzan (2020). Relationship of Machiavellian Leadership to Counterproductive Work Behavior with Mediating Mechanism of Justice Perceptions: Evidence from Tanner Sector of Pakistan. Academic Journal of Social Sciences. 4(3):741-749
- Dr. Rizwan Qaiser Danish – Associate Professor-IBA & Sohail Younas (2020). Destructive Leadership Constructs and Counterproductive Work Behavior: Evidence from Tanner Sector of Pakistan. Orient Research Journal of Social Sciences 5(2)
- Dr. Talat Islam- Assistant Professor-IBA, Mubbsher Munawar Khan, Ishfaq Ahmed, Ahmad Usman & Muhammad Ali, Assistant Professor-IBA (2020). Work-family Conflict and Job Dissatisfaction among Police Officers: Mediation of Threat to Family Role and Moderation of Role Segmentation Enhancement. Policing: An international journal of police strategies & management, 43(2), 403-415. <https://www.emerald.com/insight/content/doi/10.1108/PIJPSM-06-2019-0087/full/html>
- Dr. Talat Islam, Assistant Professor-IBA, Khalid Mahmood, Misbah Sadiq, Bushra Usman & Sheikh Usman Yousaf (2020). Understanding knowledgeable workers' behavior towards COVID-19 information sharing through WhatsApp in Pakistan. Frontiers in Psychology. 11. <https://doi.org/10.3389/fpsyg.2020.572526>
- Dr. Talat Islam, Assistant Professor-IBA, Rashid Ahmad, Saima Ahmad, and Ahmad Kaleem (2020). The nexus of corporate social responsibility (CSR), affective commitment and organizational citizenship behavior in academia: A model of trust. Employee Relations: The International Journal, 42(1), 232-247. <https://www.emerald.com/insight/content/doi/10.1108/ER-04-2018-0105/full/html>.
- Dr. Talat Islam, Assistant Professor-IBA, Ishfaq Ahmed, Siti Zaliha Abdul Rashid, Farooq Anwar and Arooj Khalid (2020). As you sow, so shall you reap: Finding customer-base outcomes of socially responsible coffee cafes. British food journal, 122(9), 3009-3026. <https://www.emerald.com/insight/content/doi/10.1108/BFJ-01-2020-0031/full/html>
- Dr. Talat Islam, Assistant Professor-IBA, Muhammad Khalid Anser, Muhammad Azhar Khan, Khalid Zaman, Abdelmohsen A. Nassani, Sameh E. Askar, Muhammad Moinuddin Qazi Abro, Ahmad Kabbani (2020). Identifying the potential causes, consequences and preventions of communicable diseases (Including COVID-19). BioMed Research International 2020 Vol. 2020. <https://doi.org/10.1155/2020/8894006>.
- Dr. Talat Islam, Assistant Professor-IBA & Mubbsher Munawar Khan (2020). Engaging police workforce through leadership: Explanatory role of four-dimensional commitment. Journal of the Research Society of Pakistan, 57(1), 293-304. http://pu.edu.pk/images/journal/history/PDF-FILES/22_57_1_20.pdf
- Dr. Talat Islam, Assistant Professor-IBA, Saif-ur-Rehman, Ch. Muhammad Salman Abid & Dr. Zeshan Ahmer, Assistant Professor-IBA (2020). How perceptions about ease of



use and risk explain intention to use mobile payment services in Pakistan? The mediating role of perceived trust. *Pakistan journal of commerce and social sciences*, 14(1), 34-48. <http://jespk.net/publications/4379.pdf>

- Dr. Talat Islam, Assistant Professor-IBA, Dr. Zeshan Ahmer, Assistant Professor-IBA & Naeem Mushtaq (2020). Retaining talent: the role of personal and contextual factors. *The Lahore journal of business*. 8(2):33-53 DOI: 10.35536/ljb.2019.v8.v2.a2
- Dr. Sania Zahra Malik, Associate Professor-IBA, Fouzia Hadi Ali, Muhammad Ali, Assistant Professor-IBA, Muhammad Ali Hamza & Hafiz Fawad Ali (2020). Managers' Open Innovation and Business Performance in SMEs: A Moderated Mediation Model of Job Crafting and Gender. *Journal of Open Innovation: Technology, Market, and Complexity* 6(3): 89. <https://doi.org/10.3390/joitmc6030089>.
- Dr. Sania Zahra Malik, Associate Professor-IBA, Dr. Labiba Sheikh, Assistant Professor-IBA & Moattar Iqbal (2020). Effect of types of employee silence on job satisfaction and subjective well-being. 57(1):665-676
- Dr. Muhammad Ali, Assistant Professor-IBA, Aamar Ilyas, Ahmed Hussain Khan, Farah Zaid, Asad Razzaq, Waris Ali Khan (2020). Turnover Intention of Employees, Supervisor Support, and Open Innovation: The Role of Illegitimate Tasks. *Journal of Open Innovation: Technology, Market, and Complexity* 6(4):128 DOI: 10.3390/joitmc6040128
- Dr. Muhammad Ali, Assistant Professor-IBA, Qandeel Hassan, Ghulam Abid, Jamil Ahmad, Ahmed Hussain Khan, and Rabbia Zafar (2020). Applicants Reaction Towards the Personnel Selection Methods in Pakistan. *Cogent Business & Management*. 7(1) <https://doi.org/10.1080/23311975.2020.1816418>.
- Dr. Muhammad Ali, Assistant Professor-IBA, Noreen Sattar, , Muhammad Ali Hamza, Hina Saleem, Hafiz Fawad Ali, and Basharat Raza (2020). Examining the Influence of Ethical Leadership on Employee Outcomes: Mediating Role of Psychological Empowerment. *Academy of Strategic Management Journal* 19(4): online
- Dr. Muhammad Ali, Assistant Professor-IBA, Basharat Raza, Wasif Ali & Nazish Imtiaz (2020). Linking Managerial Coaching with Employees' Innovative Work Behaviors through Affective Supervisory Commitment: Evidence from Pakistan. *International Review of Management and Marketing*. 10(4), 11-16.
- Dr. Muhammad Ali, Assistant Professor-IBA, Fouzia Hadi Ali, Basharat Raza & Wasif Ali (2020). Assessing the Mediating Role of Work Engagement Between the Relationship of Corporate Social Responsibility with Job Satisfaction and Organizational Citizenship Behavior. *International Review of Management and Marketing*. 10(4), 1-10.
- Dr. Humaira Asad, Assistant Professor-IBA, Aamna Mukhtar & Rafia Faiz, Assistant Professor-IBA (2020). Work-Life Interface of Pakistani Women Entrepreneurs: An Exploratory Study. *Pakistan Journal of Social Sciences (PJSS)* 40(2):1063-1074
- Dr. Humaira Asad, Assistant Professor-IBA, Rabia Naseem & Rafia Faiz, Assistant Professor-IBA (2020). Investigating Work-Life Balance among Female Academics. *Journal of Research & Reflections in Education (JRRE)*. 14(1):16-38



- Dr. Humaira Asad, Assistant Professor-IBA, Amir Ch., Muhammad Hussain, Rai Imitiaz & Naveed Iqbal Ch (2020). Environmental Innovation and Financial Performance: Mediating Role of Environmental Management Accounting and Firm's Environmental Strategy. Pakistan Journal of Commerce and Social Sciences. 14(3):715-737.
- **Conferences, Seminars and Workshops, etc.**
 - IBA arranged One day workshop on "Data Analysis using SPSS" in Institute of Business Administration (IBA) on March 7, 2020. Dr. Talat Islam, Assistant Professor-IBA was trainer of the said workshop. The workshop attended by PhD/M.Phil scholars, faculty members and research professionals from University of the Punjab. Objective was to provide an opportunity to learn how to use statistical software package SPSS for Quantitative data analysis in research.
 - Mr. Yasir Ashraf, Lecturer-IBA IBA attended and presented a paper on "Income diversification and bank performance: An evidence from emerging economy of Pakistan" in the International Conference on Contemporary Issues in Business Management (ICIBM) organized by University of Central Punjab (UCP), Lahore on February 6-7, 2020.

INSTITUTE OF BUSINESS & INFORMATION TECHNOLOGY

- **Research & Development**

To promote and enhance the research culture among Faculty and students of IBIT, The Director office has constituted 'IBIT Research Council' w.e.f. Aug 01, 2019. IBIT Research Council will ensure accomplishment of following tasks

 - Publications of individual as well as group research work in journals with good impact factor
 - Publication of Extracted work from the thesis of MBIT students in reputed international journals.
 - Organizing/Hosting Research Conference at IBIT
 - Launching Business & IT Journal
- **Research Journals**

Sr.N	Name of Faculty Member	Title of Research Paper	Name of Publishing Journal	Vol.
1.	Syeda Nazish Zahra Bukhari	Halal vaccination purchase intention: A comparative study between Muslim consumers in Malaysia and Pakistan	Journal of Islamic Marketing	
2.	Hamza Ahmad Qureshi (Co-authors: Anuhsa Gilani, M. Zain)	Effect of Social Media Usage on Entrepreneurial Leadership	International Journal of Management	11
3.	Dr. Asim Tanvir	A Mediation Analysis of E-Service Quality and E-Loyalty in Pakistani E-Commerce Market	JRSP	57 Issue 2



4.	Dr. Asim Tanvir	Organizational Justice & Workplace Deviance: Evidence from Banking Sector of Lahore, Pakistan	GMR July-Dec, 2020	5
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Faculty of Education

DEPARTMENT OF SPECIAL EDUCATION

○ Research Project

Dr. Hina Fazil

Project awarded by the University of the Punjab on A Road Map for the Access and Inclusion in Education for person with Linefelter Syndrome by the University of the Punjab for the fiscal year 2019-20 against dunds of rupees one hundred and fifty thousand.

Dr. Rukhsana Bashir

- Completed Research Project 2019-2020 approved by Research Project Committee, University of the Punjab, Lahore. as Principal Investigator. The topic of project is “An Investigation to Enhance Employment and Entrepreneurship for Students with Hearing Impairment”
- Completed Research Project 2019-2020 approved by Research Project Committee, University of the Punjab, Lahore. as Co- Investigator. The topic of project is “Equitable classroom practices used by the university in teaching to students with disabilities”

Dr. Samina Ashraf

- Won and working on research project as principal investigator announced by University of the Punjab for the FY 2019-2020 entitled “Equitable classroom practices used by the university teachers in teaching to students with disabilities”.
- Won and working on research project as co-investigator announced by University of the Punjab for the FY 2019-2020 entitled “An investigation to enhance employment and entrepreneurship for students with hearing impairment in Punjab”.

○ Conferences, Seminars, Workshops:

Details of the research publications, research papers presented in national and international conferences, seminars, workshops attended by the faculty members is given as follows:

Dr. Humara Bano (Papers Presented in International Conferences)

- Presented a paper on “Challenges Faced by Teachers in Conduction of Examination in Inclusive Schools for Students with Hearing Impairment” in the International Conference on Research and Practices in Education on Feb. 18-19, 2020 at AIOU, Allama Iqbal Open University, Islamabad. Ms. Ghazala Ishrat and Mr. Munwar Ahmed Malik were the co presenters.
- Presented a paper on “Critical analysis of question papers for fifth class board examination offered to students with and without visual impairment: a comparison” in the International Conference on Research and Practices in Education on Feb. 18-19, 2020 at AIOU, Allama Iqbal Open University, Islamabad. Kasif Iqbal and Dr. Hina Fazil were the co-presenters.



- Presented a paper on “Opinions of Special Education Teachers about Bio-Matric Attendance: a challenge for benefit” in the International Conference on Research and Practices in Education on Feb. 18-19, 2020 at AIOU, Allama Iqbal Open University, Islamabad. Iqra Ashraf and Maria Mushtaq were the co-presenters.
- Presented a paper on “Use of ICT as a part of Integral Teaching and Learning Tool for Children with Diverse Needs : a challenge for Pakistani system” in the International Conference on Research and Practices in Education on Feb. 18-19, 2020 at AIOU, Allama Iqbal Open University, Islamabad. Ms. Sonia Khan and Dr. Maria Sohaib were the co-presenter.
- Presented a paper on “Facilitation of micro financing for people with disabilities in Pakistan” in the International Conference on Research and Practices in Education on Feb. 18-19, 2020 at AIOU, Allama Iqbal Open University, Islamabad. Mr. Shahid Shah was the co-presenter.

Papers Presented in National Conferences

- Chaired and Organized ‘3rd National Conference on Research in Special Education’ with the theme Promoting Equitable and Quality Education for Persons with Special Needs, on 29th January 2020 by Institute of Special Education, University of the Punjab, Lahore, Pakistan.
- Presented a paper on “An Analysis of Functional Reading and Writing Skills among Persons with Hearing Impairment” in 3rd National Conference on Research in Special Education, on 29th January 2020 by Institute of Special Education, University of the Punjab, Lahore, Pakistan.
- Presented a paper on “A Study of Learning Support Provided to Students with Hearing Impairment at College Level in the Punjab” in 3rd National Conference on Research in Special Education, on 29th January 2020 by Institute of Special Education, University of the Punjab, Lahore, Pakistan.
- Presented a paper on “Problems faced by Transporters in Commuting Students with Hearing Impairment” in 3rd National Conference on Research in Special Education, on 29th January 2020 by Institute of Special Education, University of the Punjab, Lahore, Pakistan.
- Presented a paper on “Assessing the Needs of Parents of Children with Visual Impairment Regarding Information and Guidance in Areas Where They Face Difficulty” in 3rd National Conference on Research in Special Education, on 29th January 2020 by Institute of Special Education, University of the Punjab, Lahore, Pakistan.
- Presented a paper on “Worries of Parents about Economic Empowerment of Children with Disabilities” in 3rd National Conference on Research in Special Education, on 29th January 2020 by Institute of Special Education, University of the Punjab, Lahore, Pakistan.
- Presented a paper on “Problem Faced by Non-teaching Staff in Special Schools” in 3rd National Conference on Research in Special Education, on 29th January 2020 by Institute of Special Education, University of the Punjab, Lahore, Pakistan.



- Presented a paper on “Quranic Verses and Rights of Person with Disabilities: Reflection by Quran” in 3rd National Conference on Research in Special Education, on 29th January 2020 by Institute of Special Education, University of the Punjab, Lahore, Pakistan.
- Presented a paper on “Perceptions of Mothers about Learning Outcomes of Students with Autism Spectrum Disorder after Home Tuition” in 3rd National Conference on Research in Special Education, on 29th January 2020 by Institute of Special Education, University of the Punjab, Lahore, Pakistan.
- Presented a paper on “Social and Emotional Competencies of Special Education Teachers Working in Public and Private Sectors Schools in Lahore” in 3rd National Conference on Research in Special Education, on 29th January 2020 by Institute of Special Education, University of the Punjab, Lahore, Pakistan.
- Presented a paper on “Awareness among Parents about the Nutritional Value of Food for their Offspring with Intellectual Disability” in 3rd National Conference on Research in Special Education, on 29th January 2020 by Institute of Special Education, University of the Punjab, Lahore, Pakistan.
- Presented a paper on “Problems Faced by Mothers of Girls with Intellectual and Developmental Disabilities during Menstrual Period” in 3rd National Conference on Research in Special Education, on 29th January 2020 by Institute of Special Education, University of the Punjab, Lahore, Pakistan.

Seminar /workshop at National Level

- Attended a National Seminar on “Ability...Not Disability” on March 06 2020 at arranged by Government of the Punjab, Directorate General of Special Education” Lahore at Al-Hamrah hall no.01. Delivered a Keynote Lecture on “Inclusion and Faced challenges by Teachers in Regular Setup” in a National Workshop on 16 October 2019 at Directorate of Staff Development (QUAED).

Attended at University Level

- Arranged a seminar on “Economic Empowerment of Persons With Disabilities” on 11 December 2019 at Al Razi Hall University of the Punjab
- Arranged and chaired a Special Lecture on “SOE Models of Educational Innovation Series Presumptions” Mr. Harward Garry “CEO Deaf Reach was the chief Guest on 04-03-2020.
- Attended pre-conference workshop organized by Institute of Cultural Studies and Institute of Islamic Studies on Internationalizing Research-Global Challenges Research Fund held on 14th November 2019 in the Institute of Islamic Studies University of the Punjab, Lahore
- Attended pre-conference workshop organized by Institute of Cultural Studies and Institute of Islamic Studies on Reviewing and Evaluating Research held on 14th November 2019 in the Institute of Islamic Studies of the Punjab, Lahore.
- Attended pre-conference workshop organized by Institute of Cultural Studies and Institute of Islamic Studies Mapping Exercise on 14th November 2019 in the Institute of Islamic Studies of the Punjab, Lahore.



Dr. Hina Fazil (Research and Publication)

- Noor, M. & Hina, F. (2019). Assessing the Moral Development Level of Juvenile Delinquent Imprisoned in District Jail Okara: A Case Study Pakistan Journal of Social Sciences and Review, www.pssr.org.pk, P-ISSN 2664-0422 O-ISSN 2664-0430 December 2019, Vol. 3, No.2, 506-516.
- Hina, F., Hashmi, R., & Ali, H.M. (2019) Opportunities and Challenges Experienced by Women/Adolescent Girls with Intellectual and Developmental Disabilities. Pakistan Journal of Special Education. Institute of Special Education, University of Karachi, Vol. 19. ISSN No. 1818-2860.
- Hina, F., & Shazia, I. (2019). Challenges Faced in Teaching Students with Visual Impairment by University Teachers in Inclusive Higher Education. Pakistan Journal of Special Education. Institute of Special Education, University of Karachi, Vol. 19. ISSN No. 1818-2860.

Research Project 2019-2020

- Project awarded by the University of the Punjab on A Road Map for the Access and Inclusion in Education for person with Linfelter Syndrome by the University of the Punjab for the fiscal year 2019-20 against funds of rupees one hundred and fifty thousand.

Papers Presented International Conferences

- Presented a research paper on “Errors of writing skills among children with intellectual and developmental disabilities” in 6th International Conference on Education ICORE on 24-26 November 2019, organized by IER, PU.
- Presented a research paper on “Views of teachers about the identification of sensory motor skills among the children with autism spectrum disorder” in 6th International Conference on Education ICORE on 24-26 November 2019, organized by IER, PU.
- Presented a keynote paper on “Barriers and Progress in Inclusive Education” in 4th International Developmental Behavioral Pediatric Conference held on 7th, 8th & 9th November, 2019 organized Children Hospital, Lahore.

Papers Presented in National Conferences

- Presented a research paper on “Innovation of Information Communication Technology (ICT) in Sign Language” on November 30, 2019 in National Postgraduate Research Conference in Education Policy & Development, organized by Institute of Social and Cultural Studies, University of Management and Technology.

Seminar / workshop

- Delivered a Keynote Lecture on “Implementation of UNCRPD in Pakistan” in a seminar held on November 30, 2019 organized by SEEDA in the Institute of Social Work at University of the Punjab.

Attended

- Attended a seminar on economic empowerment of disabled persons organized by Institute of Special Education on December 11, 2019 at Alraazi Hall, University of the Punjab.



- Attended pre-conference workshop organized by Institute of Cultural Studies and Institute of Islamic Studies on Internationalizing Research-Global Challenges Research Fund held on 14th November, 2019 in the Institute of Islamic Studies, University of the Punjab, Lahore.
- Attended pre-conference workshop organized by Institute of Cultural Studies and Institute of Islamic Studies on Reviewing and Evaluating Research held on 14th November 2019 in the Institute of Islamic Studies, University of the Punjab, Lahore.
- Attended pre-conference workshop organized by Institute of Cultural Studies and Institute of Islamic Studies on The Madrasa and University Building Sustainable Future held on 14th November 2019 in the Institute of Islamic Studies, University of the Punjab, Lahore.
- Attended pre-conference workshop organized by Institute of Cultural Studies and Institute of Islamic Studies on \building a Research Culture held on 14th November 2019 in the Institute of Islamic Studies, University of the Punjab, Lahore.
- Attended pre-conference workshop organized by Institute of Cultural Studies and Institute of Islamic Studies on Mapping Exercise on 14th November 2019 in the Institute of Islamic Studies, University of the Punjab, Lahore.

Dr. Rukhsana Bashir (Research Work)

- Completed Research Project 2019-2020 approved by Research Project Committee, University of the Punjab, Lahore. as Principal Investigator. The topic of project is “An Investigation to Enhance Employment and Entrepreneurship for Students with Hearing Impairment”
- Completed Research Project 2019-2020 approved by Research Project Committee, University of the Punjab, Lahore. as Co- Investigator. The topic of project is “Equitable classroom practices used by the university in teaching to students with disabilities”

Research Publications

- Published a paper as co-author “Violence Experienced by the Girls with Hearing Impairment in the Schools and its Impact on their Education” in Journal of Accounting and Finance in Emerging Economies Volume 6: Issue 2 June 2020 Journal ISSN: 2518-0318 ISSN (E) 2518-8488. South Punjab Center for Research and Development. Pakistan.
- Published a paper as co-author “Violence Inflicted on Students with Disabilities in Special Education Institutions at Public Sector: A Remedial Inquiry” in Journal of Business and Social Review in Emerging Economies Vol Volume 6: Issue 2 June 2020, ISSN: 2519-089X (E): 2519-0326. South Punjab Center for Research and Development. Pakistan.
- Published a paper as principle “Prevalence and Prevention Strategies of Violence in Special Schools: A Quantitative Survey” in Journal of Business and Social Review in Emerging Economies Vol 6 No 1, March 2020, ISSN: 2519-089X. South Punjab Center for Research and Development. Pakistan.



- Published a paper as co-author “A Study to Explore the Effectiveness of Computer Assisted Language Learning in Teaching English to Students with Hearing Impairment at Secondary School level in Pakistan” Al-Qalam ISSN 2071-8683 E-ISSN 27070077 Volume 25, Issue, 1, 2020 Published by Institute of Islamic Studies, University of the Punjab, Lahore.

Paper presented in International Conferences

- Presented a paper on “Violence Experienced by the Girls with Hearing Impairment in the Schools and Its Impact on Their Education” in 4th International Research Conference on Economics, Business and Social Sciences on December 18-19, 2019 organized by Putra Business School, University Putra Malaysia, Kuala Lumpur, Malaysia.
- Presented a paper on “Prevalence of Violence in Special Schools: A Quantitative Survey” in 4th International Research Conference on Economics, Business and Social Sciences on December 18-19, 2019 organized by Putra Business School, University Putra Malaysia, Kuala Lumpur, Malaysia.
- Presented a paper on “Level of Expertise in Educated Young Girls in Managing Their Homes in Punjab: A Quantitative Exploration” in 4th International Research Conference on Economics, Business and Social Sciences on December 18-19, 2019 organized by Putra Business School, University Putra Malaysia, Kuala Lumpur, Malaysia.

Dr. Samina Ashraf (Research Publications)

- Paper entitled “Equity pedagogy in burgeoning culture of tolerance in higher education institutions: A perspective of teachers, in Pakistan Vision, 20(2) on December 2019.
- A research paper entitled “Violence experienced by the girls with hearing impairment in the schools and its impact on their education” in Journal of Accounting and Finance in Emerging Economics, in March, 2020.
- A research paper entitled “Equity pedagogy as a means to address educational needs of students to burgeon inclusive culture in colleges and Universities” in Journal of Educational Research, IUB, 23(1), June 2020
- A research paper entitled “Development of fine motor skills to enhance the functional abilities of children with cerebral palsy” published in Journal of Responsible Education Learning and Teaching in Emerging Economy on June, 1st 2020

Conferences/Seminar attended at national level

- Participated in national conference and presented a research paper entitled “Challenges faced by teachers in teaching mathematics to children with deafness on January 29, 2020 at Institute of Special Education, University of the Punjab, Lahore.
- Participated in national conference and presented a research paper entitled “An analysis of functional reading and writing skills among persons with hearing impairment” on January, 29, 2020 at Institute of Special Education, University of the Punjab, Lahore.
- Participated in national conference and presented a research paper entitled Services and facilities available for persons with physical impairment at PSRD and FALAH foundation on January, 29, 2020 at Institute of Special Education, University of the Punjab, Lahore.



- Participated in national conference and presented a research paper entitled Constraints faced by the teachers of children with autism spectrum disorders on January 29, 2020 at Institute of Special Education, University of the Punjab, Lahore.
- Participate in 6th international conference on education ICORE, 2019 on November 24-26 held at Institute of Education and Research, Punjab University Lahore
- Participated in seminar in annual program on international day for disabled on December 3rd, 2019 organized by CWC, University of the Punjab, Lahore

Conferences/Seminar attended at international level

- Attended and presented a research paper as principal author entitled “Violence experienced by the girls with hearing impairment and its impact on their education” in 4th international conference on economics, business and social sciences-My Chapter, organized by and held at Putra University Malaysia, December 18-19, 2019.
- Attended and presented a paper entitled “Opinions of school teachers on violence occurring in schools of students with hearing impairment” in 4th international conference on economics, business and social sciences-My Chapter, organized by and held at Putra University Malaysia, December 18-19, 2019.
- Participated in an international workshop on Guide to get in Publish on December 19, 2019, Organized by Putra Business School, University Putra Malaysia, Kuala-Lumpur. Malaysia.

Paper presented online in International Conferences

Presented a research paper entitled ICT educational tools deployed for students with visual impairment: Schools’ scenario, on September 28, 2020. The conference is organized by the Institute of education, faculty of social sciences, International University Islamabad, Pakistan.

Research Projects funded by PU.

- Won and working on research project as principal investigator announced by University of the Punjab for the FY 2019-2020 entitled “Equitable classroom practices used by the university teachers in teaching to students with disabilities”.
- Won and working on research project as co-investigator announced by University of the Punjab for the FY 2019-2020 entitled “An investigation to enhance employment and entrepreneurship for students with hearing impairment in Punjab”.

Dr. Munawar Ahmed Malik

Seminars, Workshops & Conference, Symposium, etc.

- Presented a research paper on “Transitioning from College to University of students with hearing impairment: A Qualitative Study” in 3rd National Conference on Research in Special Education, on 29th January 2020 by Institute of Special Education, University of the Punjab, Lahore, Pakistan.
- Presented a research paper on “Identifying opportunities for persons with Disabilities in China Pakistan Economic Corridor Project” in 3rd National Conference on Research in Special Education, on 29th January 2020 by Institute of Special Education, University of the Punjab, Lahore, Pakistan.



- Presented a research paper on “Challenges faced by teachers in teaching mathematics to children with deafness” in 3rd National Conference on Research in Special Education, on 29th January 2020 by Institute of Special Education, University of the Punjab, Lahore, Pakistan.
- Presented a research paper on “Critical analysis of teacher related parameters influencing quality of education for students with Special Needs” in 3rd National Conference on Research in Special Education, on 29th January 2020 by Institute of Special Education, University of the Punjab, Lahore, Pakistan.
- Presented a research paper on “A study on the provision about career education offered in Special Education Schools” in 3rd National Conference on Research in Special Education, on 29th January 2020 by Institute of Special Education, University of the Punjab, Lahore, Pakistan.
- Presented a research paper on “Critical analysis of nutritional support program offered in schools for children with Special Needs” in 3rd National Conference on Research in Special Education, on 29th January 2020 by Institute of Special Education, University of the Punjab, Lahore, Pakistan.
- Presented a research paper on “Problems faced by capacity building organizations in changing perception of society about disability: working against Charity model” in 3rd National Conference on Research in Special Education, on 29th January 2020 by Institute of Special Education, University of the Punjab, Lahore, Pakistan.
- Presented a research paper on “A study to find the preference of teachers in terms of strategies used for inhibition of self injurious behaviors” in 3rd National Conference on Research in Special Education, on 29th January 2020 by Institute of Special Education, University of the Punjab, Lahore, Pakistan.

Dr. Maria Sohaib Qureshi (Seminars, Conferences attended and paper presented)

- Organized 3rd National Conference on Research in Special Education, as conference secretary with the theme, Promoting Equitable and Quality Education for Persons with Special Needs, on 29th January 2020 by Institute of Special Education, University of the Punjab, Lahore, Pakistan.
- Presented a paper on “Problems faced by parents of children with visual impairment in helping their children with their academic” in 3rd National Conference on Research in Special Education, on 29th January 2020 by Institute of Special Education, University of the Punjab, Lahore, Pakistan.
- Presented a paper on “Assessing the Needs of Parents of Children with Visual Impairment regarding Information and guidance in Areas where they face difficulty” in 3rd National Conference on Research in Special Education, on 29th January 2020 by Institute of Special Education, University of the Punjab, Lahore, Pakistan.
- Presented a paper on “Worries of parents about economic empowerment of children with Disabilities” in 3rd National Conference on Research in Special Education, on 29th January 2020 by Institute of Special Education, University of the Punjab, Lahore, Pakistan.



- Presented a paper on “Perceptions of mothers about learning outcomes of students with Autism Spectrum Disorder after home tuition” in 3rd National Conference on Research in Special Education, on 29th January 2020 by Institute of Special Education, University of the Punjab, Lahore, Pakistan.
- Presented a paper on “Identification of Obsessive compulsive and related disorders among children with Autism and its effects on their psycho educational performance” in 3rd National Conference on Research in Special Education, on 29th January 2020 by Institute of Special Education, University of the Punjab, Lahore, Pakistan.
- Presented a paper on “Strategies used by the teachers to control self injurious behavior among children with Autism Spectrum Disorder” in 3rd National Conference on Research in Special Education, on 29th January 2020 by Institute of Special Education, University of the Punjab, Lahore, Pakistan.
- Presented a paper on “Knowledge, Attitude and practices regarding water sanitation hygiene in Primary Schools” in 3rd National Conference on Research in Special Education, on 29th January 2020 by Institute of Special Education, University of the Punjab, Lahore, Pakistan.
- Presented a paper on “Constraints faced by the teachers of children with Autism Spectrum Disorder” in 3rd National Conference on Research in Special Education, on 29th January 2020 by Institute of Special Education, University of the Punjab, Lahore, Pakistan.

INSTITUTE OF EDUCATION & RESEARCH

○ **Publications: Book/Edited**

Sr. No.	Name of Faculty Member	Title of Research Paper	Name of Publishing Journal	Vol.
1	Dr. Rafaqat Ali Akbar	Locus of Control: Teachers' Neglected Attribute Towards Students' Achievement Scores in Facing Diverse Socioeconomic Status	Problems of Education in the 21 st Century	78(2)
2	Dr. Rafaqat Ali Akbar	Assessment of English Writing Learning Outcomes of Students at Secondary School Certificate and Ordinary Level	Bulletin of Education and Research	42(2)
3	Dr. Rafaqat Ali Akbar	Teachers' Classroom Democratic Practices: Perceptions, Interpretations and Consequences	Bulletin of Education and Research	41(3)
4	Dr. Rafaqat Ali Akbar	Tracing the Effects of Teachers' Centered Teaching Methods on Students' Achievement Scores: Conditions of Public Sector Secondary Schools	Bulletin of Education and Research	42(1)
5	Dr. Abid Hussain Ch.	Effect of Cooperative Learning on the Writing Skill at Elementary Level in the Subject of English.	Bulletin of Education and Research	41(3)



6	Dr. Abid Hussain Ch.	Relationship of Teachers' Empowerment and Organizational Commitment at Secondary School Level in Punjab	Bulletin of Education and Research	42(2)
7	Dr. Abid Hussain Ch.	Authentication of Psychosomatic Capability and Workplace Life of Teachers Scales by Structural Equation Modeling	Journal of Educational Research,	22(2)
8	Dr. Abid Hussain Ch.	Relationship of Work Engagements and Job Performance of University Teachers	Bulletin of Education and Research	42(1)
9	Dr. Rizwan Akram Rana	Relationship between Task Oriented Leaders' Behavior and Organizational Performance in Higher Education Institution	Bulletin of Education and Research	41(3)
10	Dr. Muhammad Saeed	Effect of Reconstruction Activities on Intermediate Level Students' English Writing Skills.	Journal of Educational Research	22(2)
11	Dr. Muhammad Saeed	Assessing the Effect of Agree/Disagree Circles, Exit Ticket, and Think – Pair – Share on Students' Academic Achievement at Undergraduate Level	Bulletin of Education and Research	42(2)
12	Dr. Muhammad Saeed	Teachers and education managers perceptions and practices regarding national professional standards for teachers: A multiple case study	Global Regional Review	4(1)
13	Dr. Shaukat Ali Raza	Master of Business Education Programme Effectiveness Assessment	Bulletin of Education and Research	41(3)
14	Dr. Tariq Hussain	A Study of the association between Self-Directed Learning Readiness and Academic Achievement of Students Teachers in Pakistan	Bulletin of Education and Research	41(3)
15	Dr. Abdul Qayyum Ch	Organizational Commitment and Organizational Citizenship Behavior of Business Employees in Automobile and Telecommunication Sector of Pakistan.	Pakistan Vision	19(2)
15	Dr. Abdul Qayyum Ch.	Role of Principals' Motivational Strategies and Performance of Elementary Schools Teachers Regarding their Academic Qualification	Journal of Elementary Education	29(2)



16	Dr. Abdul Qayyum Ch.	Significance of Reading and Writing in Understanding Islamic Study Subject Matter: Knowledge of Pre-School Teachers.	AL-ADWA	33(49)
17	Dr. Abdul Qayyum Ch.	Promoting Social Justice and Equity through University Education in Pakistan	International Journal for the Scholarship of Teaching and Learning	12(2)
18	Dr. Abdul Qayyum Ch.	Identification of Elementary School Teachers' Life Skills in District Narowal	Journal of Elementary Education	30(1)
19	Dr. Abdul Qayyum Ch.	Parental Involvement at Home and School at Elementary Level: Effect of Occupation	Journal of Elementary Education	30(1)
20	Dr. Abdul Qayyum Ch.	Role of Principals' Motivational Strategies and Performance of Elementary Schools Teachers Regarding their Academic Qualification	Journal of Elementary Education	29(2)
21	Dr. Tariq Mahmood Ch.	Leadership Role in Promoting Inclusive Education on the importance of Practices of Educational Leadership: A Review of Critical Literature	International Journal of Psychosocial Rehabilitation	24(9)
22	Dr. Tariq Mahmood Ch.	Effects of Transformational School Leadership Practices on Self-Efficacy and Collective Efficacy of Teachers Professionally Qualified In Higher Education	The Online Journal of Quality in Higher Education	6(3)
23	Dr. Muhammad Shahid Farooq	Nurturing Inclusive Education through Cooperative Learning as Pedagogical Approach at Primary School Level.	Pakistan Journal of Education	35(3)
24	Dr. Muhammad Shahid Farooq	Parental Involvement as Predictor for Self-Regulation Learning and Academic Achievement of Students at Secondary School Level	Journal of Educational Science & Research	7(1)
25	Dr. Muhammad Shahid Farooq	Quality Improvement Through inclusive Education at Primary School Level	Journal of Research and Reflections in Education	23(1)
26	Dr. Abida Nasreen	Performance appraisal Practices in the universities of Punjab.	Journal of Strategic Human Resource Management	8(2)
27	Dr. Abida Nasreen	An investigative study of learning disabilities in students studying computer.	Journal of Secondary Education	1(1)



28	Dr. Abida Nasreen	Safety, Health and Wellness Practices in the Public Universities of Punjab	Pakistan Social Sciences Review	3(2)
29	Dr. Abida Nasreen	Exploring the Diverse Views of Professionals and Students on Causes and Consequences of Terrorist Attacks on their Performance.	Journal of Education and Research	23(1)
30	Dr. Abida Nasreen	Improving Motivation of Students: Motivational Strategies used by Secondary School Teachers	Hamdard Islamicus,	43(1)
31	Dr. Muhammad Akram	Effect of head teachers' effectiveness on school performance at secondary school level.	Journal of Educational Sciences and Research	7(1)
32	Dr. Muhammad Akram	Comparing the quality of work life among university teachers in Punjab	Bulletin of Education & Research	42(2)
33	Dr. Munaza Nousheen	Gender and disciplinary differences in the future plans of post graduate students in Pakistan.	International Journal of Gender Sciences & Technology	10(2)
34	Dr. Munaza Nousheen	Impact of In-service Training on Management Skills of School Teachers	Pakistan Journal of Social Sciences (PJSS)	39(4)
35	Dr. Ghulam Fatima	Effect of head teachers' motivational techniques on elementary school teachers' performance on the basis of their age	Journal of Elementary Education	29(2)
36	Dr. Ghulam Fatima	Violence Inflicted on Students with Disabilities in Special Education Institutions at Public Sector: A Remedial Inquiry	Journal of Business and Social Review in Emerging Economies	6(2)
37	Dr. Ghulam Fatima	Effect of Financial Assistance on the Motivation and Satisfaction of Students with Disabilities at University Level in Punjab	Journal of Accounting and Finance in Emerging Economies	6(2)
38	Dr. Ghulam Fatima, Dr. Misbah Malik	Provision of Early Childhood Special Education to Children with Deafness enrolled in Public Sector Special schools in Punjab: A Mixed Method Inquiry	International Review of Social Sciences	8(9)
39	Dr. Effat Alvi	A case study of a Grade 7 Teachers' Perspectives and Practices Related to Self-Regulated Learning (SRL)	Asia Pacific Journal of Teacher Education.	48(20)
40	Dr. Effat Alvi	Promoting Self –Regulated Learning (SRL) through Experiential Learning in the Early Years of School: A Qualitative as Study	European Journal of Teacher Education	Online



41	Dr. Effat Alvi	Teachers and the teaching of self-regulated learning (SRL): The emergence of an integrative, ecological model of SRL-in-context.	Education Sciences	10(4)
42	Dr. Tariq Hussain & Dr. Aroona Hashmi	Prospective Teachers' Attitude towards e-Learning. A Case of Pakistan	International Journal of Humanities and Social Sciences	8(2)
43	Dr. Tariq Hussain	Prospective Teachers' Attitude toward the Use of ICT: An empirical Approach in Pakistan.	International Journal of Humanities and Social Sciences	9(7)
44	Dr. Tariq Hussain	Effect of Teachers' Favoritism on Academic Sabotage: An Empirical Evidence of Elementary. Education Students in Pakistan	Journal of Elementary Education	30(1)
45	Dr. Tariq Hussain	Teacher Immediacy and Students Classroom Participation: A relationship Study in Pakistan.	Journal of the Research Society of Pakistan	57(1)
46	Dr. Tariq Hussain	A Study of the Association between Self-Directed Learning Readiness and Academic Achievement of Student-Teachers in Pakistan	Bulletin of Education and Research	41 (3)
47	Dr. Tariq Hussain	Attitude towards Teaching Profession in Pakistan: A Case of Public Sector Secondary School Teachers	Pakistan Social Sciences Review	4(2)
48	Dr. Tariq Hussain and Dr Misbah Malik	Effect of Teachers' Favouritism on Academic Sabotage: An Empirical Evidence of Elementary Education Students in Pakistan	Journal of Elementary Education	29(2)
49	Dr. Mubushira Khalid and Dr. Aroona Hashmi	Content and sources of prospective teachers' personal practical theories (ppts) at university of Punjab	Journal of Elementary Education	29(2)
50	Dr. Mubushira Khalid	Revisiting High School Students' Learning Styles in English Subject	Pakistan Social Sciences Review	3(1)
51	Dr. Mubushira Khalid	Relationship between Self-Directed Learning (SDL) and Academic Achievement of University Students: A Case of Online Distance Learning and Traditional Universities	Bulletin of Education and Research	42(2)
52	Dr. Aroona Hashmi	Impact of Big five personality traits on Academic Achievement of Prospective Teachers	Journal of Arts and Social Science	7(1)



53	Dr. Asim Nazir and Dr. Rizwan Akram Rana	Effect of working memory on students' attitude towards mathematics at secondary level.	Pakistan Journal of Education	35(3)
54	Dr. Muhammad Islam	Engagement in Pakistani Academic Research Discourse: A Cross-disciplinary Analysis of PhD theses in Natural and Social Sciences.	Bulletin of Education and Research	42(1)
55	Dr. Shazia Malik	The Effect of Orientation and Mobility Curriculum on the Academic Achievement of Visually Impaired Children among Public and Private Institutes of Lahore	The Multilingual Academic Journal of Education and Social Sciences (MAJESS)	6(1)
56	Dr. Shazia Malik	Conceptualizing Orientation and Mobility Practices within the Expanded Core Curriculum	Global Journal of Humanities and Social Science.	18(9)
57	Dr. Tahira Afridi	Historical Perspective of Islamic Management Thoughts: Implications for Contemporary Organizations.	Hamdard Islamicus	2020
58	Dr. Misbah Malik	Implementation of Early Childhood special education Curriculum in the Actual Classroom: A Qualitative Investigation	Journal of Education & Humanities Research	5(1)
59	Dr. Tayyaba M. Akram	The Impact of Parental Enforcement, Societal Demands and Text Books Role on Students' Interest towards the subject of Chemistry.	International Journal for Cross-Disciplinary Subjects in Education.	9(3)
60	Dr. Misbah Malik, Dr. Abdul Qayyum, Dr. Ghulam Fatima	Perception of Elementary School Students about their Parent Involvement at Home and School	Journal of Elementary Education	29(2)
61	Dr. Amna Saeed	Relationship between Students' Working Memory Capacity and Mathematical Performance at Secondary School Level	Bulletin of Education and Research,	41(3)
62	Dr. Muhammad Islam	National and Collective Interests Motivating English Language Learners in a Pakistani Context.	Pakistan Vision	20(1)
63	Dr. Muhammad Islam	Reinforcement of Patriarchal Structures in Pakistani Society: A Critical Discourse Analysis of Chinoy's A Girl in The River: The Price of Forgiveness.	Journal of the Research Society of Pakistan	56(2)



64	Dr. Muhammad Islam	The Socio-political Construction of 'Honor' in the Patriarchal Society of Pakistan.	South Asian Studies	34(2)
65	Dr. Muhammad Islam and Dr. Ahmad Sohail Lodhi	Future L2 Selves of Pakistani Learners of English: A Qualitative Perspective,	Linguistics and Literature Review	6(1)
66	Dr. Muhammad Islam and Dr. Abir Hassan Naqvi	The Effectiveness of Technology-mediated Task-Based Language Teaching in Teaching English Writing Skills to the Students of Higher Secondary Level. .	Hamdard Islamicus,	43(1)
67	Dr. Muhammad Islam	What Supports Females in Higher Education Progression? A Pakistani Public University Context.	Pakistan Journal of Gender Studies,,	20(1)
68	Dr. Muhammad Islam	Future L2 Selves of Pakistani Learners of English: A Qualitative Perspective	Linguistics and Literature Review,	6(1),
69	Dr. Muhammad Islam	Engagement in Pakistani Academic Research Discourse: A Cross-disciplinary Analysis of PhD Theses in Natural and Social Sciences	Bulletin of Education and Research	42(1),
70	Dr. Muhammad Islam	A Study of Pakistani Students' Perceptions about Academic Dishonesty at University Level	Journal of Research and Reflections in Education,	14(1)
71	Dr. Muhammad Islam	Influence of COVID-19 on the Lexical Features of English in Pakistan. Linguistics and Literature Review	Linguistics and Literature Review,	6 (2),
72	Dr. Shazia Malik	Orientation and Mobility Practices within the Expanded Core Curriculum with Effective Parental Involvement of Visually Impaired Learners in Pakistan.	Bulletin of Education and Research (BER)	42(1)
72	Dr. Shazia Malik	Exploring the consequences of Terrorist Attacks on the Performance of Professionals and Students in Pakistan.	Journal of Educational Research (JER)	23 (1)
73	Dr. Shazia Malik	Strategies to solve communication barriers between parents and teachers of visually impaired learners in Pakistan.	International Journal of Curriculum and Instruction	(12(2)
74	Dr. Shazia Malik	E-module as an emergency-innovated learning source during the Covid-19 outbreak.	Psychology, Evaluation, and Technology in Educational Research. (PETIER)	3(1)



75	Muhammad Abiodullah, & Muhammad Aslam	Emotional intelligence as a predictor of teacher engagement in classroom.	Bulletin of Education and Research	42(1)
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- **Conferences, Seminars and Workshops, etc.** (Sponsors, Oral Presentation + Poster Presentation)
 - Prof. Dr. Rafaqat Ali Akbar participated as key note speaker in National Conference on Education (NCE-2020) Education in 21st Century: Expectations, Challenges and Possibilities held on February 12-13, 2020 being organized by Department of Education, National University Modern Languages, Islamabad.
 - Prof. Dr. Rafaqat Ali Akbar Participated in Eurasian Conference on Language & Social Sciences VIII and presented paper on “Relationship between Teacher Evaluation Score and School Effectiveness” held on October 18-20, 2019 at Antalya, Turkey.
 - Prof. Dr. Rafaqat Ali Akbar Organized and participated and in 7th International Conference on Research in Education (ICORE) organized by IER, University of the Punjab, Lahore, November 19-21, 2019.
 - Prof. Dr. Abid Hussain Ch. Organized & in 7th International Conference on Research in Education (ICORE) organized by IER, University of the Punjab, Lahore, November 19-21, 2019.
 - Prof. Dr. Rizwan Akram Rana, Organized & participated in 7th International Conference on Research in Education (ICORE) organized by IER, University of the Punjab, Lahore, November 19-21, 2019.
 - Dr. Muhammad Saeed, Organized & participated in 7th International Conference on Research in Education (ICORE) organized by IER, University of the Punjab, Lahore, November 19-21, 2019.
 - Dr. Abdul Qayyum Ch., organized and participated 7th International Conference on Research in Education (ICORE) organized by Institute of Education & Research, University of the Punjab, Lahore November 19-21, 2019.
 - Dr. Muhammad Shahid Farooq, Organized & participated in 7th International Conference on Research in Education (ICORE) organized by IER, University of the Punjab, Lahore, November 19-21, 2019.
 - Dr. Abida Nasreen participated in 7th International Conference on Research in Education (ICORE 2019) - Teacher Education: 21st Century Challenges" being organized by Institute of Education and Research, University of the Punjab, November 19-21, 2019.
 - Dr. Ghulam Fatima participated and presented paper titled “Relationship of Achievement Goal Orientation of University Teachers with their Qualification at Work Engagement and Organizational Commitment” in National Postgraduate Research Conference in Education being organized by Department of Education, University of Management & Technology, Lahore-Pakistan on 30-11-2019.
 - Dr. Ghulam Fatima participate in one day International Seminar on “Seerat e Tayyaba: Social Rights of Women and Contemporary Perspective” organized by Organized by



Seerat Chair, Gender Studies and Human Rights, Higher Education Commission, Islamabad and University of the Punjab, Lahore-Pakistan on March 10, 2020 at Auditorium, Sheik Zayed Islamic Centre, University of the Punjab, Lahore.

- Dr. Ghulam Fatima attended Five Day Workshop being organized by Institute of Social and Cultural Studies, University of the Punjab in collaboration with University of Leeds, UK, November 11-15, 2019.
- Dr. Ghulam Fatima attended pre-conference workshop on NVIVO software workshop in ICORE 2019 organized by IER, University of the Punjab, Lahore-Pakistan 17-11-2019.
- Dr. Ghulam Fatima attended a pre-conference workshop on “Qualitative Research Methods in (ICORE) organized by IER, University of the Punjab, Lahore-Pakistan on 18-11-2019
- Dr. Ghulam Fatima attended a one day workshop on APA Manual 7th Edition and Academic Writing being organized by IER, University of the Punjab, Lahore-Pakistan in February, 2020
- Dr. Muhammad Akram participated in Eurasian Conference on Language and Social Sciences, Turkey Oral Presentation entitled: “Relationship between teacher evaluation score and school effectiveness” (October 18-20, 2019).
- Dr. Muhammad Akram participated in Eurasian Conference on Language and Social Sciences, Turkey Oral presentation entitled: “Predicting teacher evaluation score through grit and resilience” held on October 18-20, 2019.
- Dr. Tariq Hussain, participated in 7th International Conference on Research in Education (ICORE) organized by IER, University of the Punjab, Lahore, November 19-21, 2019.
- Dr. Aroona Hashmi, participated in 7th International Conference on Research in Education (ICORE) organized by IER, University of the Punjab, Lahore, November 19-21, 2019.
- Dr. Tariq Hussain Organized and conducted workshop on EndNote Reference Management Workshop on Thursday, 10th April, 2019 in Waheed Shaheed Hall, IER, University of the Punjab.
- Dr. Tariq Hussain participated in workshop entitled “How to Compete for international Funding-Project Proposal Writing” being organized by University of Leeds, UK November 11-15, 2019.
- Mr. Shamim Ullah, participated as member organizing committee in 7th International Conference on Research in Education (ICORE) organized by IER, University of the Punjab, Lahore, November 19-21, 2019.
- Dr. Munaza Nausheen, participated in 7th International Conference on Research in Education (ICORE) organized by IER, University of the Punjab, Lahore, November 19-21, 2019.
- Dr. Effat Alvi, participated in 7th International Conference on Research in Education (ICORE) organized by IER, University of the Punjab, Lahore, November 19-21, 2019.
- Dr. Abida Nasreen, participated in 7th International Conference on Research in Education (ICORE) organized by IER, University of the Punjab, Lahore, November 19-21, 2019.



- Dr. Misbah Malik, participated in 7th International Conference on Research in Education (ICORE) organized by IER, University of the Punjab, Lahore, November 19-21, 2019.
- Dr. Umme Salma, participated in 7th International Conference on Research in Education (ICORE) organized by IER, University of the Punjab, Lahore, November 19-21, 2019.
- Dr. Shaukat Ali Raza, participated in 7th International Conference on Research in Education (ICORE) organized by IER, University of the Punjab, Lahore, November 19-21, 2019.
- Dr. Shazia Malik participated in 7th International Conference on Research in Education (ICORE) organized by IER, University of the Punjab, Lahore, November 19-21, 2019.
- Dr. Shazia Malik participated in workshop on “Qualitative Data Analysis by Using Nvivo” being organized by Institute of Education and Research, University of Punjab Lahore, Pakistan on 16-11-2019.
- Dr. Shazia Malik participated in workshop on “Publishing in Impact Factor Journals” being organized by Institute of Education and Research, University of Punjab Lahore, Pakistan on 23-11-2019.
- Dr. Shazia Malik participated in International E-Conference on Research in Education and Leadership organized by University of Management and Technology (UMT) Lahore. 2020.
- Dr. Shazia Malik participated in International Conference on Teaching, Education organized by The Tomlinson Centre, Queens bridge Road, Landon, UK Organized by: Teaching and Education Research Association (TERA) 2020.
- Dr. Fouzia Younas participated and presented paper on Application of Role play for inculcating values among students in 33rd International Conference of AAOU held on 14th to 16th October 2019.

National/International Conferences Organized

- “7th International Conference on Research in Education (ICORE-19), was held on November 19-21, 2019 with the theme of “Teacher Education: 21st Century Challenges”. About one thousand researchers, teachers, educators, teachers’ practitioners, social scientist, students and professionals from Pakistan & around the world participated in the Conference. They made their presentations and shared research based knowledge, experiences new advancements, empirical results and innovations in the field of education. ICORE organizing committee received 305 research papers from National and International researchers which were peer reviewed and one hundred and fifty (150) papers were accepted for presentation. The international guests in this event were from USA, UK, Philippine, France, Malaysia, Australia, Hong Kong, Ireland and New Zealand.
- 11th Post Graduate Students’ Conference (PGSC-2020) was held on 11-03-2020 with the theme: “Classroom Effectiveness”. The worthy Vice-Chancellor, University of the Punjab was the Chief Guest. A large number of participants attended the conference. PGSC-2020 organizing committee received 70 research papers from national researchers which were peer reviewed and more than thirty five papers were accepted for presentation.

*Workshops and Seminars Organized*

- Organized a seminar on “Fikare Iqbal and Nojawaan” on November 13, 2019 and Mr. Zulfiqar Ahmad Cheema Ex-Inspector General Police was the key note speaker at the seminar.
- The Department of Science Education, Institute of Education and Research, organized a “Science Exhibition on Learning Theories” on January 24, 2020.
- Organized a one day workshop on Academic Writing & APA 7th Editions on January 25, 2020, at Waheed Shaheed Hall, IER. Dr. Muhammad Saeed was the resources person.
- Organized a one day workshop on Selection of Topic and Review of Literature on January 26, 2020, at Waheed Shaheed Hall, IER. Dr. Muhammad Aamir Hashmi and Dr. Ahmad Sohail Lodhi was the resources person.
- Organized a one day workshop on Qualitative Data Analysis by Using Nvivo on November 16, 2020, at Waheed Shaheed Hall, IER. Dr. Rab Nawaz Lodhi was the resources person.
- Organized a one day workshop on Structural Equation Modeling AMOS on November 17, 2020, at Waheed Shaheed Hall, IER. Dr. Ayaz Ul Haq was the resources person.
- Organized a one day workshop on Planning and Conducting Qualitative Research on November 18, 2020, at Waheed Shaheed Hall, IER. Prof. Dr. Bill Atweh was the resources person.
- Organized a one day workshop on Instrument Development and Validation on November 18, 2020, at Waheed Shaheed Hall, IER. Prof. Dr. Enriqueta D. Reston was the resources person.
- Organized a one day workshop on Instructional Round Profession Development Model on November 22, 2020, at Waheed Shaheed Hall, IER. Prof. Dr. Fatma Bikmaz was the resources person.
- Organized a one day workshop on Using Case Studies in Teaching Educational Administration on November 22, 2020, at Waheed Shaheed Hall, IER. Prof. Dr. Ahmed Aypay was the resources person.
- Organized a one day workshop on Publishing in Impact Factor Journals on November 23, 2020, at Waheed Shaheed Hall, IER. Dr. Muhammad Shakeel Ahmad was the resources person.

○ **Research Journals**

- Bulletin of Education and Research (BER), Institute of Education and Research, University of the Punjab Lahore Volume 41, No. 3, 2019.
- Bulletin of Education and Research (BER), Institute of Education and Research, University of the Punjab Lahore Volume 42, No. 1, 2020.
- Bulletin of Education and Research (BER), Institute of Education and Research, University of the Punjab Lahore Volume 42, No. 2, 2020.



- Journal of Elementary Education, Institute of Education and Research, University of the Punjab Lahore Volume 29 No 2, 2019.
- Journal of Elementary Education, Institute of Education and Research, University of the Punjab Lahore Volume 30 No 1, 2020.
- Pakistan Journal of Educational Research and Evaluation (PJERE), Institute of Education and Research, University of the Punjab Lahore Volume 6, No.1, 2020.
- Pakistan Journal of Educational Research and Evaluation (PJERE), Institute of Education and Research, University of the Punjab Lahore Volume 5, No.2, 2019.

Faculty of Engineering & Technology

INSTITUTE OF ENERGY AND ENVIRONMENTAL ENGINEERING

○ **Research and Development**

The Institute was established in 2003 as Centre for Coal Technology to provide trained manpower for utilization of huge coal deposits available in Pakistan in order to achieve self-reliance in the energy sector. Research activities, aimed at exploring the technology for effective utilization of coal resources, remain continued throughout the year by mutual coordination of the faculty and students. Hundreds of students have completed their research thesis under the supervision of senior faculty members. For capacity building, a new PC-1 of Rs. 984 Million aiming at transformation of the Centre into Institute of Energy & Environmental Engineering has been approved and underway. The Centre name has also been changed to Institute of Energy & Environmental Engineering this year i.e. 2020.

○ **Publications: Books/ Edited**

- Effect of Randomly Grown Morphology of ZnO Nanorods in Inverted Organic Solar Cells, by Do-Heyoung Kim, Muhammad Zafar, Shenawar Ali Khan, Fatima Sher, Muddassir Ali, Tareq Manzoor, Sheik Abdur Rahman, Woo Young Kim, Mahmood Saleem. Journal of Nanoscience and Nanotechnology. 2020, 20, Pages: 4414–4418, American Scientific Publishers.
- Analysis of a Thin Layer Formation of Third-Grade Fluid, by Sanaullah Manzoor Tareq Manzoor, Kashif Nazar, Muhammad Zafar, Shaukat Iqbal, Muddassir Ali, Woo Young Kim, Mahmood Saleem. Coatings. 2019, 9, Pages: 1-15,.
- N Ali, M Ashraf, K Shahzad, M Saleem, A Chughtai; Fluidized bed fast pyrolysis of corn stover: Effects of fluidizing gas flow rate and composition, Energy Sources, Part A: Recovery, Utilization, and Environmental Effects, 1-13
- A Basit, MS Akram, M Saleem, JA Awam, Jean-Noël Jaubert; Characterization and kinetic modeling of the pyrolysis of sugar cane trash, International Journal of Energy, Environment and Economics 25 (1), 43-56.



- M Sajid, M Ayoub, Y Uemura, S Yusup, M Saleem, B Abdullah, AU Khan; Comparative study of glycerol conversion to polyglycerol via conventional and microwave irradiation reactor, Materials Today: Proceedings 16, 2101-2107
- Wahab, H. Sattar, A. Ashraf, S.N. Hussain, M. Saleem, S. Munir (2020). Thermochemical, Kinetic and Ash Characteristics Behaviour of Thar Lignite, Agricultural Residues and Synthetic Polymer Waste (EVA), Fuel, Vol. 266, pp. 117151.
- H. Sattar, I. Muzaffar, S. Munir (2020). Thermal and Kinetic Study of Rice Husk, Corn Cobs, Peanut Crust and Khushab Coal under inert (N₂) and oxidative (dry air) atmospheres, Renewable Energy, Vol. 149, pp. 794-805.
- M. Shahbaz*, S. Yusup, T. Al-Ansari, A. Inayat, M. Inayat, H. Zeb, M.S. Alnarabiji*, "Characterization and reactivity study of coal bottom ash for utilization in biomass gasification as an adsorbent/catalyst for cleaner fuel production", Energy & Fuel, 2019, 33, 11318-11327
- **Conferences, Seminars and Workshops, etc.** (sponsors, oral Presentation + Poster Presentation)
 - 1st Symposium on Energy and Environment at the Centre for Coal Technology, University of the Punjab, Lahore held on 13-12-2019.

DEPARTMENT OF POLYMER ENGINEERING & TECHNOLOGY

○ **Research & Development**

Department of Polymer Engineering and Technology is working on R&D as one of the core objectives of the department. The department continues to enjoy significant growth and momentum in its research productivity. Due to COVID-19, limited opportunities of research funding were available all over the world but still faculty of Polymer Engineering Department submitted approximately eight proposals on to Pakistan Science Foundation, HEC or other national level organizations to get research funding. A number of proposals are in evaluation process. Amongst these proposals 04 grants were approved by Punjab University Internal Funding. Nevertheless, the faculty has managed to publish 23 research papers ISI indexed international journals of good impact factor. In addition, 11 book chapters have been published by faculty members and students by reputed international publishers like Elsevier, Willey etc. These encouraging research trends reflect active involvement of our faculty members in research work, which demonstrate the caliber of our faculty members and the success of our strategically focused interdisciplinary research model.

○ **Publications: Books/ Edited**

- Aneela Sabir, Humaira Idrees, Muhammad Shafiq, Muhammad Taqi Zahid Butt, Karl I Jacob, Muhammad Arshad; Impact from Distilleries of CO₂ Discharge on Climate Changes; Key Facts, Sustainable Ethanol and Climate Change, Springer, 2020.
- Aneela Sabir, Muhammad Hamad Zeeshan, Muhammad Shafiq, Rafi Ullah Khan, Karl I Jacob; Adsorptive Polymer Coatings; Polymers Coatings: Technology and Applications, John Wiley & Sons, 2020



- Aneela Sabir, Tahmina Zia, Muhammad Usman, Muhammad Shafiq, Rafi Ullah Khan, Karl I Jacob; Organic Electrode Material for Sodium-Ion Batteries; Self-standing Substrates, Springer, Cham, 2020
- Aneela Sabir, Rida Batool, Faizah Altaf, Muhammad Shafiq, Rafi Ullah Khan, and Karl I. Jacob; Polymer Absorbents for Heavy Metal Removal; Green Adsorbents to Remove Metals, Dyes and Boron from Polluted Water, Springer, 2020
- Aneela Sabir, Faizah Altaf, Rida Batool, Muhammad Shafiq, Rafi Ullah Khan, and Karl I. Jacob; Agricultural Waste Absorbents for Heavy Metal Removal; Green Adsorbents to Remove Metals, Dyes and Boron from Polluted Water, Springer, 2020
- Aneela Sabir, Tahmina Zia, Muhammad Usman, Muhammad Shafiq, Rafi Ullah Khan, Karl I Jacob; Organic Electrode Material for Sodium-Ion Batteries; Self-standing Substrates, Springer, 2020
- Aneela Sabir, Faiza Altaf, Zahid Bashir, Muhammad Hassan Tariq, Muhammad Khalil, Muhammad Shafiq, Muhammad Hamad Zeeshan, Rafi Ullah Khan, Karl I Jacob; Novel Conducting Polymer-Based Battery Application; Conducting Polymers-Based Energy Storage Materials, CRC Press, 2019
- Aneela Sabir, Dania Munir, Samina Saleem, Faiqa Shakeel, Muhammad Hamad Zeeshan, Muhammad Shafiq, Rafi Ullah Khan, Karl I Jacob; Conducting Polymer-Metal Based Binary Composites for Battery Applications; Conducting Polymers-Based Energy Storage Materials, CRC Press, 2019
- Aneela Sabir, Maria Wasim, Muhammad Shafiq, Tahir Jamil; Carbon Nanotube and Graphene Oxide Based Membranes; Nanoscale Materials in Water Purification, Elsevier, 2019.
- Synthesis and Characterization and Application of Chitin and Chitosan-Based Eco-friendly Polymer Composites; Sustainable Polymer Composites and Nanocomposites, Springer, 2019
- Nafisa Gull, Shahzad Maqsood khan, Atif Islam, Muhammad Taqi Zahid Butt "Bio Monomers for Green Polymeric Composites Materials" 09th Chapter "Hydrogels used for Biomedical Applications" ISBN: 978-1-119-30170-7, pp 175-199 Wiley-blackwell, UK, (2019)
- **Conferences, Seminars and Workshops, etc.** (Sponsors, Oral Presentation + Poster Presentation)
 - Development of Dye Sensitized Solar Cell by Characterizing Polymeric Counter Electrodes Osama Majeed Butt, Shazad Maqsood Khan, Muhammad Shakeel Ahmad, Muhammad Umar Manzoor. 2nd International conference on advanced research in applied science and engineering Oxford United Kingdom UK Mar 27-29, 2020
 - Participated in 1st Symposium on Energy and Environment, Friday, 13th Dec, 2019, Centre for Coal Technology, University of the Punjab, Lahore.
 - Conference Proceeding in Ghauri Z. H, Islam A, Qadir, M. A. pH responsive and biodegradable ternary blend hydrogels (Chitosan/Guar gum/PVP) for injectable drug release application, International Conference of Punjab University, Recent Innovations in Molecular Sciences, November 06-08, 2019. (Best Oral Presentation (1st Position))



- Oral presentation title “Development and in vitro study of polyurethane membrane for dialysis”. Saba Urooge Khan, Shahzad Maqsood Khan, Khadija Rafiq, Muhammad Shafiq, Saba Zia. 7th International Symposium on Biomedical Materials: Science & Technology Innovation and the Knowledge Economy in Interdisciplinary Research Center of Biomedical (IRCBM) Comsats University Lahore Pakistan Dec11-12, 2019
 - Ministerial Workshop on Mechanism of Renewable Energy Utilization & Development for Developing Countries by Hunan International Business Vocational College at Changshaw Hunnan Province People Republic of China Oct 14-23, 2019
 - Silica nanoparticles doped polyurethane membranes for reverse osmosis applications. Saba Urooge Khan, Shahzad Maqsood Khan, Misbah Sultan, Atif Islam. 18th International and 30th National Conference on Chemistry on recent trends in Chemistry-CCMT-2019 University of Management & Technology Lahore Pakistan Nov 27-29, 2019
 - The development and optimization of high performance polymeric membranes for reverse osmosis. Saba Urooge Khan, Shahzad Maqsood Khan, Khadija Rafiq, Misbah Sultan, Atif Islam, Nafisa Gul, Muhammad Shafiq, Aneela Sabir. 1st International Conference on "Recent Innovations in Molecular Sciences held in University of the Punjab, Lahore Pakistan Nov 6-8, 2019.
- **Research Journals**
- Israr Ali, Muhammad Asim Raza, Rashid Mehmood, Atif Islam, Aneela Sabir, Nafisa Gull, Bilal Haider, Sang Hyun Park and Rafi Ullah Khan; Novel Maleic Acid, Crosslinked, Nanofibrous Chitosan/Poly (Vinylpyrrolidone) Membranes for Reverse Osmosis Desalination; doi:10.3390/ijms21197338; International Journal of Molecular Sciences 2020, 21, 7338 (p.1-14)
 - Nafisa Gull, Shahzad Maqsood Khan, Syed Khalid, Saba Zia, Atif Islam, Aneela Sabir, Misbah Sultan, Farieha Hussain, Rafi Ullah Khan, Muhammad Taqi Zahid Butt; Designing of biocompatible and biodegradable chitosan based crosslinked hydrogel for in vitro release of encapsulated povidone-iodine: A clinical translation; DOI: <https://doi.org/10.1016/j.ijbiomac.2020.09.031>. International Journal of Biological Macromolecules 164 (2020) 4370-4380
 - Fahd Jamshaid, Muhammad Rizwan Dilshad, Adnan Ahmad, Atif Islam, Bilal Haider, Rafi Ullah Khan; Synthesis, characterization and desalination study of polyvinyl chloride-co-vinyl acetate/cellulose acetate membranes integrated with surface modified zeolites; DOI: <https://doi.org/10.1016/j.micromeso.2020.110579>. Microporous and Mesoporous Materials 309 (2020) 110579 (p.1-13)
 - Saba Urooge Khan. Sadaf Hafeez, Misbah Sultan, Atif Islam, Sadia Sagar Iqbal, Rafi Ullah Khan, Shahzad Maqsood Khan; Impact of soft segment size on structural and permeation properties of polyurethane membranes; Journal of Polymers and the Environment (Published online: 28 April 2020)(2020) 28 (7):1944–1953



- Sarwar MS, Ghaffar A, Islam A, F. Yasmin, Z. Oluz, E. Tuncel, H. Duran, A. Qaiser A; Controlled drug release behavior of metformin hydrogen chloride from biodegradable films based on chitosan/poly(ethylene glycol) methyl ether blend; *Arabian Journal of Chemistry* (2020) 13, 393–403 (I.F= 4.762).
- Dure N. Iqbal, Sadia Shafiq, Shahzad M. Khan, Sobhy M. Ibrahim, Samar A. Abubshait, Arif Nazir, Mazhar Abbas, Munawar Iqbal; Novel chitosan/guar gum/PVA hydrogel: Preparation, characterization and antimicrobial activity evaluation; *International Journal of Biological Macromolecules* 164, 499-509 (2020)
- Muhammad Naveed Ashraf, Shahzad Maqsood Khan, Shahid Munir, and Rashid Saleem; Synthesis of Formaldehyde Free Amino Resin to Produce Green Eco-Labelled Leather with Improved Retanning Properties; *Journal of American Leather Chemist Association (JALCA)*. 115, 132-139 (2020)
- Muzamil Hussain, Rizwan Ali Naqvi, Naseem Abbas, Shahzad Masood Khan, Saad Nawaz, Arif Hussain, Nida Zahra and Muhammad Waqas Khalid; Ultra-High-Molecular-Weight-Polyethylene (UHMWPE) as a Promising Polymer Material for Biomedical Applications: A Concise Review; *Polymer MDPI*, 12, 232 (2020)
- Dure Najaf Iqbal, Mehwish Tariq, Shahzad Maqsood Khan, Nafessa Gull, Sadia Sagar, Abida Aziz, Arif Nazir, Munawar Iqbal; Synthesis and characterization of chitosan and guar gum based ternary blends with polyvinyl alcohol; *International Journal of Biological Macromolecules* 143 546-554 (2020)
- Muhammad Hamad Zeeshan, Rafi Ullah Khan, Muhammad Shafiq, Aneela Sabir; Polyamide intercalated nanofiltration membrane modified with biofunctionalized core shell composite for efficient removal of Arsenic and Selenium from wastewater; 2020 *Journal of Water Process Engineering* volume 34.
- Tahmina Zia, Muhammad Usman, Aneela Sabir, Muhammad Shafiq, Rafi Ullah Khan; Development of inter-polymeric complex of anionic polysaccharides, alginate/k-carrageenan bio-platform for burn dressing; *International Journal of Biological Macromolecules*, 2020.
- Faizah Altaf, Rida Batool, Rohama Gill, Muhammad Atif Shabir, Matthew Drexler, Faisal Alamgir, Ghazanfar Abbas, Aneela Sabir, Karl I Jacob; Novel Np-carboxy benzyl chitosan/poly (vinyl alcohol/functionalized zeolite mixed matrix membranes for DMFC applications; 2020, *Carbohydrate polymers*.
- Humaira Idrees, Syed Zohaib Javaid Zaidi, Aneela Sabir, Rafi Ullah Khan, Xunli Zhang, Sammer-ul Hassan; A Review of Biodegradable Natural Polymer-Based Nanoparticles for Drug Delivery Applications; *Nanomaterials*, 2020.
- Faizah Altaf, Rida Batool, Rohama Gill, Zohaib Ur Rehman, Hammad Majeed, Adnan Ahmad, Muhammad Shafiq, Davoud Dastan, Ghazanfar Abbas, Karl Jacob; Synthesis and electrochemical investigations of ABPBI grafted montmorillonitebased polymer electrolyte membranes for PEMFC application; *Renewable Energy* 2020



- Rizwan Nasir, DzetiFarhahMohshim, Hafiz Abdul Mannan, Danial Qadir, Hilmi Mukhtar, Khuram Maqsood, Abulhassan Ali, Belladonna Maulianda, Aymn Abdulrahman, Abdullah Bin Mahfouz; A perspective on ionic liquid-based membranes for CO₂ separation; Chemical Papers, 2020
- Nafisa Gull, Shahzad Maqsood Khan, Muhammad Taqi Zahid Butt, Syed Khalid, Muhammad Shafiq, Atif Islam, Sumreen Asim, Sadaf Hafeez and Rafi Ullah Khan; In-vitro study of chitosan-based multi-responsive hydrogels as drug release vehicles: A preclinical study; RSC Advances (2019) 9; 31078–31091
- Muhammad MaazArif, Sajid Rashid Ahmad, Shahzad Maqsood Khan; Measurement of Noise Levels: An Observational Study in Engineering Laboratories; Journal of Pakistan Institute of Chemical Engineers (JPICHE) 47 (2) (2019)

RESEARCH COLLABORATION

○ Indigenous

Indigenous collaboration was established with a number of national universities and departments on various research projects.

- Institute of Chemistry, University of the Punjab, Lahore.
- University College of Pharmacy, University of the Punjab, Lahore, Pakistan
- Institute of Chemical Engineering and Technology (ICET), University of the Punjab, Lahore
- Institute of Energy and Environmental Engineering (IEEE), University of the Punjab, Lahore
- COMSATS University, Islamabad
- University of Lahore
- Lahore College for Women University (LCWU), Lahore
- Centre for Excellence for Molecular Biology (CEMB), University of the Punjab, Lahore
- Centre for Applied Molecular Biology (CEMB), University of the Punjab, Lahore

○ Foreign Linkages

- North Carolina States University USA
- James Graham Brown Cancer Center, University of Louisville, Kentucky USA. WR Grace, Cytec and Mallard Creek Polymers and The Lewis Chemical Company. USA
- Department of Biomedical and Electronics Engineering, University of Bradford, UK
- Department of Food Science, RUTGERS, The state University of New Jersey, USA
- Universiti Malaya, Malaysia
- Department of Petroleum Engineering, Universiti Teknologi PETRONAS, Malaysia
- Department of Chemical Engineering, Universiti Teknologi PETRONAS, Malaysia
- Department of Chemical Engineering, University of Jeddah, Saudi Arabia



DEPARTMENT OF METALLURGY & MATERIALS ENGINEERING

○ **Research and Development – An Overview**

The faculty members of Department of Metallurgy & Materials Engineering have been actively involved in R&D, which can be seen from the publications, conferences, seminars and workshops data given in the relevant section. The faculty members are supervising research projects of students of 8th Semester, who are carrying out mandatory research work in the field of corrosion, foundry, heat treatment, nanomaterials, photocatalysis, physical metallurgy, etc. The PhD faculty of the department is also supervising research projects of PhD (Engg.) Metallurgy and Materials Engineering and MSc. (Engg.) Metallurgy and Materials Engineering students.

○ **Projects: Newly launched**

Name of Researcher	Title of Research Project	Duration	Funding (Rs.)	Sponsoring Agency
Prof. Dr. Mohsin Ali Raza	Lanthanum-pervoskite based electrodes for supercapacitor applications	0.15	UOP	In progress
Dr. Aqil Inam	Machinability of graphitic free-cutting from various starting microstructural	0.15	UOP	In progress
Dr. Atif Makhdoom	Heat input calculations during multipass welding in various steels using robot	0.15	UOP	In progress
Engr. Ameerq Farooq	Micro Arc Oxidation of Magnesium AZ31B alloy to enhance its biocompatibility for biomedical applications	0.125	UOP	In progress

○ **Conferences, Seminars and Workshops, etc.**

- ‘Series of Virtual Technical Webinars’ from 5th September 2020 to date.
- ‘Corrosion Awareness Day 2020 – Corrosion Photographic Competition’ from 04th April 2020 to 13th May 2020 .
- ‘Corrosion Awareness Day 2020 – Online Technical Presentation’ from 10th April 2020 to 3rd May 2020.
- ‘Technical Lecture on Inhibitor’ at Department of Metallurgy and Materials Engineering, University of the Punjab, Lahore on 11th February 2020.
- ‘Technical Lecture on Water Treatment’ at Department of Metallurgy and Materials Engineering, University of the Punjab, Lahore on 30th January 2020.
- ‘Technical Lecture on Cathodic Protection’ at Department of Metallurgy and Materials Engineering, University of the Punjab, Lahore from 21st to 23rd January 2020.
- ‘Chemistry behind Corrosion’ at Department of Metallurgy and Materials Engineering, University of the Punjab, Lahore from 15th to 20th November 2019.

○ **Research Journals**

Sr. No.	Name of Faculty Member	Title of Research Paper	Name of Publishing Journal
1	Dr. Mohsin Ali Raza	Characterization of boron nitride nanosheets synthesized by boron-ammonia reaction.	Ceramics International



2	Dr. Mohsin Ali Raza	Corrosion study of graphene oxide coatings on AZ31B magnesium alloy	Journal of Coating Technology Research
3	Dr. Mohsin Ali Raza	Effect of post-deposition annealing temperature on the charge carrier mobility and morphology of DPPDTT based Organic Field Effect Transistors	Chemical Physics Letters
4	Dr. Mohsin Ali Raza	Effect of voltage and spray-off distance of electric-arc spray technique on surface properties of nickel-chrome (Ni-Cr) coating developed on 304L stainless steel.	Materials Research Express
5	Dr. Tahir Ahmed	Effect of heat treatment on the precipitate behaviour, corrosion resistance and high temperature tensile properties of 7055 aluminum alloy synthesis by novel spray deposited followed by hot extrusion	Vacuum
6	Dr. Tahir Ahmed	Adiabatic shear band localization in an Al-Zn-Mg-Cu alloy under high strain rate compression	Journal of Materials Research and Technology
7	Dr. Tahir Ahmed	Effect of Hot Rolling on Microstructures and Mechanical Properties of Ni base Superalloy,	Vacuum
8	Dr. Tahir Ahmed	Effect of Ultrasonic Surface Rolling Treatment on Corrosion Behavior of Alloy 9690,	Metals
9	Dr. Tahir Ahmed	Experimental investigation on ultrasonic shot peening of WC-Co alloy	Materials and Manufacturing Processes
10	Dr. Tahir Ahmed	The effect of strain rates on the microstructure and the mechanical properties of an over-aged Al-Zn-Mg-Cu alloy	Materials Characterization
11	Dr. Tahir Ahmed	Effects of ultrasonic surface rolling processing and plasma nitriding on the fretting wear behavior of Inconel 690TT	Surface & Coatings Technology
12	Dr. Tahir Ahmed	Microstructure evolution of an artificially aged Al-Zn-Mg-Cu alloy subjected to soft- and hard-steel core projectiles	Journal of Materials Research and Technology
13	Dr. Tahir Ahmed	Microstructure characteristic of spray formed 7055 Al alloy subjected to ballistic impact by two different steel core projectiles impact	Journal of Materials Research and Technology
14	Dr. Aqil Inam	Effect of morphology of manganese oxide on the capacitive behavior of electrodes	Materials Research Express



15	Dr. Aqil Inam	Effect of tempering time on microstructure, mechanical, and electrochemical properties of quenched–partitioned–tempered Advanced High Strength Steel (AHSS)	Materials Research Express
16	Dr. Aqil Inam	γ -Fe ₂ O ₃ photocatalyst immobilized on a porous Ni substrate for recyclable solar photocatalysis	Journal of Nanoparticle Research
17	Dr. Aqil Inam	Optimized Corrosion Performance of AISI 1345 Steel in Hydrochloric Acid Through Thermo-Mechanical Cyclic Annealing Processes	Crystals
18	Dr. Aqil Inam	Raman spectroscopy study of the crystallinity of graphite formed in an experimental free-machining steel	Materials Characterization
19	Ameeq Farooq	Effect of Post Weld Heat Treatment on the Microstructure and Electrochemical Characteristics of Dissimilar Material Welded by Butter Method	Materials
20	Ameeq Farooq	Electrochemical corrosion study of helium ions implanted Zircaloy-4 in chloride media	Nuclear Engineering Technology
21	Ameeq Farooq	Effect of thermo-mechanical cyclic quenching and tempering treatments on microstructure, mechanical, and electrochemical properties of AISI 1345 steel	International Journal of Mineral Metallurgy and Material
22	Ameeq Farooq	Corrosion behavior of cold-rolled and post heat-treated 316L stainless steel in 0.9% NaCl solution	International Journal of Mineral Metallurgy and Material
23	Ameeq Farooq	Phosphate chemical conversion coatings for magnesium alloys: a review	Journal of Coating Technology Research
24	Ameeq Farooq	Mechanical and corrosion properties of medium carbon low alloy steel after cyclic quenching and tempering heat-treatments	Materials Research Express
25	Ameeq Farooq	Improvement in Electrochemical Corrosion Resistance of Mg-Al-Zn Alloy by 250 keV Carbon Ions Irradiation	Materials Research Express
26	Ameeq Farooq	Biocorrosion inhibition of Cu ₇₀ :Ni ₃₀ by Bacillus subtilis strain S1X and Pseudomonas aeruginosa strain ZK biofilms	Journal of Basic Microbiology
27	Ameeq Farooq	Electrochemical and biological response of titanium (cp-Ti) after silicon ion implantation	Anti-Corrosion Methods and Materials



RESEARCH COLLABORATIONS

○ Indigenous

- The Department of Metallurgy & Materials Engineering has research collaboration with local industries.
- Dr. Mohsin Ali Raza is collaborating on various research projects with Dr. Javaid Iqbal, Centre of Solid State Physics, University of the Punjab and with Dr. Zaheer of Gulham Ishaq Khan Institute.

○ Foreign Linkages

- Dr. Aidan Westwood, University of Leeds, UK
- Dr. Waseem Haider, Central Michigan University, USA
- Dr. Saiful Izwan Abd Razak, Universiti Teknologi Malaysia, Johor Malaysia
- Prof. Dr. Naesung Lee, Hybrid Materials Centre (HMC), Department of Nanotechnology and Advanced Materials Engineering, Sejong, Seoul, Republic of Korea

INSTITUTE OF CHEMICAL ENGINEERING & TECHNOLOGY

○ R&D – An Overview

The institute is engaged in R & D for development of new materials and new processes that are essential for industrial advancement. Strategic areas of focus are (i) energy and sustainability; (ii) Gas Cleaning and Filtration; (iii) Fisher Tropsch Synthesis; (iv) Polymer sciences; and (v) water and waste water treatment.

○ Publications: Books/ Edited

Authors: Professor Dr. Abdullah Khan Durrani / Dr. Mujtaba Akram

Book: Advanced Functional Materials / Advance carbon functional materials for superior energy storage.

Sr.	Author	Title	Journal
1	Abdullah Durrani	Thermal performance analysis and synergistic effect on co-pyrolysis of coal and sugarcane bagasse blends presented by trihexyltetradecylphosphonium chloride	Fuel
2	Abdullah Durrani	Upscaling feasibility of a graphite-based truncated conical microbial fuel cell for bioelectrogenesis through organic wastewater treatment	Journal of Colloid and Interface Science
3	Abdullah Durrani, Rafi Ullah Khan, Bilal Haider	Novel PVA/PEG nano-composite membranes tethered with surface engineered multi-walled carbon nanotubes for carbon dioxide separation	Microporous and Mesoporous Materials
4	Syed Nadir Hussain, H.M. Anwaar Asghar	An efficient approach for separation of acephate from aqueous solution using a novel surface modified adsorbent and its electrochemical regeneration	Separation Science and Technology



5	Syed Nadir Hussain	Thermochemical, kinetic and ash characteristics behaviour of Thar Lignite, agricultural residues and synthetic polymer waste (EVA)	Fuel
6	H.M. Anwaar Asghar	Phytosynthesis of cerium oxide nanoparticles and investigation of their photocatalytic potential for degradation of phenol under visible light	Journal of Molecular Structure
7	H.M. Anwaar Asghar	Advanced applications of nanotechnology in agriculture: An overview	World Journal of Biology and Biotechnology
8	H.M. Anwaar Asghar	Controllable phytosynthesis of gold nanoparticles and investigation of their size and morphology-dependent photocatalytic activity under visible light	Journal of Photochemistry and Photobiology A: Chemistry
9	Amir Shafeeq	Benchmarking of scaling and fouling of reverse osmosis membranes in a power generation plant of paper and board mill: an industrial case of a paper and board mill study	International Journal of Environmental Science and Technology
10	Amir Shafeeq	Thermal Performance Analysis of Ionic Liquid-Pretreated Spent Coffee Ground Using Aspen Plus®	Chemical Engineering & Technology
11	Amir Shafeeq	Effect of regenerated ionic liquid pretreatment on the thermogravimetric analysis of spent coffee ground	Energy Sources, Part A: Recovery, Utilization, and Environmental Effects
12	Amir Shafeeq	Solvent effectiveness factor: A new correlation to study the influence of solvent, temperature, and stirring rate on synthesis yield of Ionic Liquids	Arabian Journal of Chemistry
13	Majid Majeed Akbar	Lead and cadmium removal from wastewater using eco-friendly biochar adsorbent derived from rice husk, wheat straw, and corncob	Cleaner Engineering and Technology
14	Muhammad Rashid Usman	An exclusive kinetic model for the methylcyclohexane dehydrogenation over alumina-supported Pt catalysts	International Journal of Chemical Kinetics
15	Muhammad Rashid Usman	Composite zeolite beta catalysts for catalytic hydrocracking of plastic waste to liquid fuels	Materials for Renewable and Sustainable Energy
16	Muhammad Rashid Usman	Densities and Thermal Expansion Coefficients of Pure Methylcyclohexane, 1-Methylcyclohexene, 4-Methylcyclohexene, 1-Methyl-1, 4-cyclohexadiene, and Toluene and Binary Mixtures ...	International Journal of Thermophysics



17	Muhammad Rashid Usman	Waste Plastics to Liquid Fuels over Al-Impregnated Zeolite Beta Catalyst	International Journal of Material Science and Engineering
18	Khurram Shahzad	Designing coal preperation circuits of cleaning high ash and high sulfur Punjab (Pakistan) coal to meat end-user requirments	International Journal of Coal Preperation & Utilization
19	Ayyaz Muhammad	Carbon Dioxide (CO ₂) Capture in Alkanolamines Impregnated Activated Carbon Developed from Date Stones	Science of Advanced Materials
20	Ayyaz Muhammad	The economic and environmental analysis of energy production from slaughterhouse waste in Saudi Arabia	Environment, Development and Sustainability
21	Ayyaz Muhammad	Simultaneous capture of acid gases from natural gas adopting ionic liquids: Challenges, recent developments, and prospects	Renewable and Sustainable Energy Reviews
22	Rabya Aslam	Densities and Thermal Expansion Coefficients of Pure Methylcyclohexane, 1-Methylcyclohexene, 4-Methylcyclohexene, 1-Methyl-1,4-cyclohexadiene, and Toluene and Binary Mixtures of Methylcyclohexane and Toluene at 283.15 K to 358.15 K and 1 atm	International Journal of Thermophysics
23	Rabya Aslam	Composite zeolite beta catalysts for catalytic hydrocracking of plastic waste to liquid fuels	Materials for renewable and sustainable energy
24	Rabya Aslam	Simulation Study to Investigate the E_ects of Operational Conditions on Methylcyclohexane Dehydrogenation for Hydrogen Production	Energies
25	Rabya Aslam	An exclusive kinetic model for the methylcyclohexane dehydrogenation over alumina-supported Pt catalysts	International Journal of Chemical Kinetics
26	Rabya Aslam	Recent Progress in Textile-Based Flexible Supercapacitor	Frontiers in Materials
27	Rabya Aslam	Water Removal from LOHC Systems	Hydrogen

○ Research Journals

Following two journals are being published by the faculty and institute jointly on annual basis:

- Journal of Faculty of Engineering and Technology
- Journal of Pakistan Institute of Chemical Engineers

RESEARCH COLLABORATION

○ Indigenous

Institute has collaboration with SNGPL, PCSIR, PSF, IRP and other public sector organizations for conducting research projects at graduate and undergraduate level.



○ **Foreign Linkages**

University has signed a few MOUs with the foreign universities. Recently a MOU has been signed with University Technology Petronas Malaysia. One faculty member is in KFUPM on Post Doc leave.

○ **Funding grants for R&D**

Faculty at the Institute actively participates in R & D activities. Every year faculty members get significant research grant from Punjab University. In addition, one faculty member is working on research supported by HEC grant.

DEPARTMENT OF ELECTRICAL ENGINEERING

○ **Projects: Completed**

Sr.	Title of Project	Faculty Member	Sponsored By
1	Remote data acquisition and monitoring of gas flow computers	Engr. Danish Arif	SNGPL
2	Industrial Motors Monitoring and Automation	Engr. Danish Arif	Packages Mall
3	Rehabilitation of Depression through neuro feedback System	Engr. Danish Arif	NGIRI
4	Brain Tumor and Clot Detection Using Parallel Computing.	Engr. Danish Arif	Lahore Care Hospital
5	Social Distancing Monitoring system at workplace.	Engr. Danish Arif	Jazz

○ **Research Publications**

Dr. Engr. Zeeshan Azmat

- Muhammad Naeem Shehzad, Qaisar Bashir, Ghufraan Ahmad, Adeel Anjum, Muhammad Naeem Awais, Umar Manzoor, Z. A. Shaikh, Muhammad A Balubaid and Tanzila Saba, "Thermal-aware resource allocation in earliest deadline first using fluid scheduling", International Journal of Distributed Sensor Networks," pp: 1~11, Vol: 15, Issue: 3, 2019. Standard: 1550-1477.

Engr. Osama Majeed Butt

- Osama Majeed Butt, Muhammad Zulqarnain, Tallal Majeed Butt," Recent advancement in smart grid technology: Future prospects in the electrical power network", Ain Shams Engineering Journal, ISSN- 2090-4479, 2020. I.F. 1.949, EG
- Muzna Abid, Osama Majeed Butt, Quratul Aan, Bushra Rashid, Nanthini Sri Devi, "Role of Critical Success Factors (CSF) in The Implementation of Six Sigma in Hospitals: A Preliminary Study in Pakistan", Asia-Pacific Journal of Health Management, ISSN-2204-3136, 2020; 15(1).
- Aqil Inam, Mohsin Ali Raza, Muhammad Arslan Hafeez, Shamin Bashir Shah, Muhammad Ishtiaq, Muhammad Haseeb Hassan, Muhammad Irfan, Arisha Nasik, Iqra Siddique, Osama Majeed Butt, Adnan Maqbool, Waseem Haider, "Effect of voltage and spray-off distance of electric-arc spray technique on surface properties of nickel-chrome (Ni-Cr) coating developed on 304L stainless steel", Materials Research Express, ISSN-2053-1591, Vol 7, No 1, January 2020. I.F. 1.449, UK



Conference Proceedings

- Osama Majeed Butt, Muhammad Shakeel Ahmad, Hang Seng Che, Nasrudin Abd Rahim, "Design of a small scale fluidized-bed incinerator for MSW with ability to utilize HHO as auxiliary fuel", International Scientific Forum 2019, 16 – 17 December 2019, Mudzaffar Hotel, Malacca, MY
- Osama Majeed Butt, Shahzad Maqsood Khan, Muhammad Shakeel Ahmad, Muhammad Umer Manzoor, "Development of Dye Sensitized Solar Cell by Characterizing Polymeric Counter Electrodes", 2nd International Conference on Advanced Research in Applied Science and Engineering, ISBN: 978-609-485-038-7, 27 – 29 March, 2020, St Anne's College, Oxford, UK

○ **Conferences, Seminars and Workshops**

Department is now focusing in arrangement frequent seminars for the advancement of students and to expose them to the emerging technologies.

A specialized course on Artificial Intelligence is offered to students in summer vacations, giving students opportunity to have hands-on experience and working with international research groups. Radar and Remote Sensing Lab is dedicated for this purpose. Department is also arranging conferences and encouraging students to participate in the roles of administrators and organizers.

IEEE Communications Society (ComSoc) Founded in 1952 has evolved into a diverse group of global industry professionals with a common interest in advancing all communications technologies. IEEE GLOBECOM, IEEE ICC, and other conferences have earned international reputations. IEEE COMSOC Lahore Section announced "IEEE COMSOC Summer School Program 2016" be held on 26th to 29th July 2016 organized by UET Lahore & Punjab University. 2 Day seminars will be conducted in Punjab University & 2 Days in UET Lahore.

○ **Research Journals: 01**

RESEARCH COLLABORATIONS

○ **Foreign Linkages**

More linkages are being developed to attract industrial projects.

INSTITUTE OF QUALITY & TECHNOLOGY MANAGEMENT

○ **R&D-An Overview**

Proposal of four research centers approved in major expansion/future plans of IQTM

- Centre for Standardization
- Centre for Industrial Policy Analysis
- Centre for Ergonomics
- Centre for Supply Chain & Project Management

○ **Projects**

IQTM has recently entered into an agreement with South Asian (Chengdu) Standardization Research Institute, Chengdu, China. It has also inked agreement with Faisalabad Industrial Estate & Management Compnay (FIEDMC) to open a training institute at Allama Iqbal Industrial Area. The same institute has been approved by PU Syndicate.



○ Publications

Prof. Dr Muhammad Shafiq (Professor)

- (2020) Corporate Social responsibility in Pakistan: Mimicry of the West or a milestone guiding consumer behavior? Hamdard Islamicus, Vol.43, No. 3, 95-116.
- (2020) Impact of Service Quality on Consumer Buying Behavior: The Mediating Role of Corporate Image. Hamdard Islamicus, Vol.43, No.2, 721-738.

Dr. Muhammad Usman Awan (Associate Professor)

- (2020) Enhancing student engagement through heterogeneous pedagogical approaches: action research in a university level course in Saudi Arabia, International Journal of Educational Management
- (2020) What makes excellence models excellent: a comparison of the American, European and Japanese models, The TQM Journal
- (2020) Integration of Quality Management and Supply Chain Management in Pharmaceutical Distribution Sector of Pakistan, Journal of the Research Society of Pakistan 57 (1), 205
- (2020) Identifying and ranking critical success factors for sustainable lean manufacturing implementation in automotive sector using (AHP) approach, Journal of the Research Society of Pakistan Volume 57 (1)
- (2019) Machine learning facilitated business intelligence (Part I), Industrial Management & Data Systems
- (2019) Machine learning facilitated business intelligence (Part II), Industrial Management & Data Systems
- (2019) Impact of leadership styles on employees' performance with moderating role of positive psychological capital, Total Quality Management & Business Excellence, 1-21
- (2019) Driving Mobile Accounts Sales: Strategic Imperative for Telenor Pakistan, Asian Journal of Management Cases 16 (2), 240-260
- (2019) Improving the convergence and extracting useful information from high dimensional big data with neural networks

Dr. Hakeem ur Rehman (Assistant Professor)

- (2020), Categorizing the Barriers in Adopting Sustainable Supply Chain Initiatives: A Way-forward towards Business Excellence, Cogent Business & Management, Vol.7, Iss: 1.
- (2020), Development and characterization of foundry refractory coating and validation through factorial design of experiment, Journal of the Pakistan Institute of Chemical Engineers, Vol 48, No 1

Dr. Fizza Ghulam Nabi (Assistant Professor)

- (2020) Journal of Asthma Analysis of wheeze sounds during tidal breathing according to severity levels in asthma patients, 57(4), 353-365
- (2020) Fizza Ghulam Nabi, Kenneth Sundaraj, Chee Kiang Lam, Asthma severity identification from pulmonary acoustic signal for computerized decision support system Journal of the Pakistan Medical Association, 1-18



- (2020) Fuzzy Inference System Based Smart Obstacle Avoidance Algorithm for Autonomous System) to Inter Journal of Computing and Digital Systems (Under review)

Dr. Muhammad Shafiq (Assistant Professor)

- (2020) Investigating Supply Chain issues in the Food Processing Industry, IOP Conference Series: Materials Science and Engineering 847 (1), 012071
- (2020) M Shafiq, M Waqas, K Shahzad, Z Rashid, MA Islam, M Bilal, U Hameed, Optimizing Throughput, WIP and Cycle Time: A Case Study of Utensils Manufacturing Shop Floor, J. of Engineering Research 8-1
- (2020) Investigating the Impact of Emotional Intelligence on Academic Performance of Engineering Students: An Exploratory Study in Pakistan, A Fakhar, M Jahanzaib, MH Sarfraz, M Shafiq, A Rizwan The Nucleus 56 (3), 105-111
- (2020) Investigating acceptance of telemedicine services through an extended technology acceptance model (TAM), SA Kamal, M Shafiq, P Kakria, Technology in Society 60, 101212
- (2020) Factors influencing customers' satisfaction: A case study of SMEs from Pakistan, Proceeding of 12th International Seminar on Industrial Engineering
- (2019) Stealth technology: Methods and composite materials - A review Polymer Composites 40 (12), 4457-4472

Dr Faryal Jalil (Assistant Professor)

- (2019) How Workplace Bullying Jeopardizes Employees' Life Satisfaction: The Roles of Job Anxiety and Insomnia. Front. Psychol. 10:2292. doi: 10.3389/fpsyg.2019.02292
- (2019), Effect of QMS on innovation and financial performance – A Developing Country Perspective" Pakistan Business Review, Vol 21, Issue 3. Pg 56-79
- (2019) 'A nexus between financial leverage and performance of textile sector of Pakistan' international journal of management research and emerging science, Vol. 9, issue 1, pp 98-106.
- (2020) 'Knowledge sharing and performance: A mediating role of innovation' International journal of management research and emerging science, Vol. 10, Issue 1, pp 67-80.

○ **Conferences, Seminars and Workshops, etc.** (Sponsors, Oral Presentation + Poster Presentation)

Dr. Hakeem ur Rehman (Assistant Professor)

- Shahzada Zaman Khan, Muhammad Azhar Ashfaq, Muhammad Usman Awan, Hakeem-Ur-Rehman, Ayesha Kamal, N T X Hoa and Muhammad Shafiq, Investigating Supply chain issues in the food processing industry, 12th International Seminar on Industrial Engineering and Management (12th ISIEM), held on March 17–20, 2020 in Batu-Malang, Indonesia.
- Doctoral Spring School 2020
Guest Speaker, Talk Title: Big Data Analytics using Python, Doctoral Spring School 2020, Association of Media & Communication Academic Professionals, Venue: Institute of Quality & Technology Management, University of the Punjab, Lahore, Pakistan, dated: Feb. 28 - March 8, 2020.



- Pakistan Society of Industrial Engineering
Delivered talks on
 - Time Series Forecasting Using Python (August 5, 2020)
 - Supply Chain Analytics Using Python (July 17, 2020)
 - Data Visualization Using Python (July 5, 2020)
 - Big Data Analytics Using Python (June 22, 2020)

Dr. Fizza Ghulam Nabi (Assistant Professor)

- Sana Hassan (Lecturer) "ISEM 2020 5th International Symposium on the Environment and Morals" held on-line on 24-25 September 2020.
- Mariam Altaf Tarar (Lecturer) Research Projects Grant for the fiscal year 2019-2020 by Office of the Research & Innovation, University of the Punjab Exact Title: Lean in Parallel with Green Manufacturing.

○ Research Journals

Institute publishes one research journal "Journal of Quality & Technology Management".

RESEARCH COLLABORATION

- **Indigenous:** FIEDMC.
- **Foreign Linkages:** South Asian standardization Research Centre (Chengdu)

Faculty of Islamic Studies

INSTITUTE OF ISLAMIC STUDIES

- **Publications:** Books/ Edited

القلم: جون 2019

- 1- تفسیر قرآن میں مصادر روایت اور بیان روایت نقل کرنے کے اسالیب (برصغیر کے تفسیری ادب کے تناظر میں) اسما شاہد / ڈاکٹر عاصم نعیم
- 2- اثبات اعتقادات میں قرآن کریم کا استدلال منہج (عصری عقلیات کے برہانی منہج پر استدراک) عبد اللہ کیلانی / محمد حماد لکھوی
- 3- کذاب راوی کی مرویات اور امام احمد بن حنبل و علامہ احمد شاہ کربکی آراء کا تقابلی مطالعہ ڈاکٹر حبیب الرحمن / ڈاکٹر احسان الرحمن غوری
- 4- سنت نبوی صلی اللہ علیہ وآلہ وسلم اور حالات و زمانہ کی رعایت (دعوت و تبلیغ اور سیاسی معاملات کے تناظر میں) ڈاکٹر سعید احمد / حافظ عرفان اللہ
- 5- عصری معاشی مسائل اور فکر اقبال: ایک مطالعہ ڈاکٹر سعیدہ گلزار
- 6- اقوام متحدہ کے عالمی منشور انسانیت کا شرعی جائزہ ڈاکٹر حافظ حسن مدنی
- 7- قبل از اسلام عربوں کے ملبوسات اور سنت نبوی صلی اللہ علیہ وآلہ وسلم صبیحہ اکرم / ڈاکٹر حافظہ شاہدہ پروین
- 8- شرعی امور میں بیگنی اور مشقت کے خاتمہ کے لئے نبوی اقدامات ڈاکٹر محمد فضل / ڈاکٹر محمد حبیب

Dr. Usman Ahmad

Legal Status of Currency Note in Shariah: An Issue of Islamic Markets-9



دسمبر

- 1- قرآن اور امجری، واقعہ اصحاب کھف کے تناظر میں
- 2- تصریف قصص قرآنیہ کے معنوی مقاصد اور اسرار و حکم
- 3- ٹائم ویڈیو ڈیٹ پونٹ (TWDU) کی شرعی حیثیت
- 4- امام طحاوی کا نقد روایات کا اسلوب
- 5- بعثت نبوی صلی اللہ علیہ وآلہ وسلم کے واقعات میں اختلاف و اشتراک۔۔ تحقیق و تجزیہ
- 6- واقعہ غرانیق کی استثنائی تعبیرات۔۔ تجزیاتی مطالعہ
- 7- عصر حاضر میں فروغ قادیانیت کے ذرائع اور مسلم امہ کا لائحہ عمل
- 8- طبقات فقہاء میں امام ابو بکر جصاص کے درجہ میں اختلاف کی توجیہ

○ **Conferences, Seminars and Workshops, etc. (Sponsors, Oral Presentation + Poster Presentation)**

Date	Title
12 November 2019	قومی کانفرنس سیرت النبی اور عصری سماجی تحدیات
20-21 November, 2019	سیرت طیبہ اور پاکستان میں خواتین کو درپیش مسائل
09 December, 2019	ریاست مدنیہ کا قیام اور استاذہ کی ذمہ داریاں
24 December, 2019	استقبالہ سال اول
26 February, 2020	تعزیتی ریفرنس پروفیسر ڈاکٹر عبدالروف ظفر مرحوم
02 March, 2020	سیرت نگاری پر مستشرقین پر علمی و موضوعاتی اثرات
10 March, 2020	سیرت طیبہ خواتین کے سماجی حقوق اور عصری تناظر
21 October, 2020	تعزیتی ریفرنس پروفیسر ڈاکٹر محمد یاسین مظہر صدیقی مرحوم

DEPARTMENT OF URDU ENCYCLOPAEDIA OF ISLAM

○ **Projects**

Departmental Development: Second Edition of the Urdu Encyclopedia of Islam

○ **Publications: Books/ Editor**

Books: Dr. Zahira Nisar (Senior Editor/ Assistant Professor)

“Manzil se qareeb”, (ed) Dr. Zahira Nisar, Kitab Sarae, Lahore 2019.

○ **Research Journals**

Dr. Hafsa Nasreen (Senior Editor/ Assistant Professor)

“Archeology in Quran” (A critical study of views of Western Scholars and contemporary surveys), in Al-Ayyam, (HEC recognized) Jan-June, 2020, Karachi.

○ **Conferences, Seminars and Workshops**

Dr. Hafsa Nasreen (Senior Editor/ Assistant Professor)

Paper presented entitled “Importance of introspection in character building in the light of Seerah” in: Two days International Conference on “Character building in the light of Seerah”, Faisalabad University, Faisalabad 19, 20 February 2020.



SHEIKH ZAYED ISLAMIC CENTRE

○ **Publications: Books/ Edited**

Name	Title of Research Paper	Name of Journal
Dr. Muhammad Ijaz	حیلہ، اقسام اور اس کی شرعی حیثیت	ابحاث
	مروجہ نظام تکفل کے مقاصد: امداد بائمی یا سرمایہ کاری - اختصاصی مطالعہ	AFKAR
	مولانا انور شاہ کاشمیری کا نظریہ نسخ اور احادیث کی تعبیر و تشریح میں اس کا اثر	Jihat al Islam
	نبوت و رسالت سے متعلق ”ترجمان القرآن“ کے کلامی مباحث کا جائزہ	Al-Tabeen
	The Legitimacy of Sea Animals: A Critical Analysis	Al-Qalam
	کرنسی اور کمپنی شیئرز کے وقف کی شرعی حیثیت: علمی و تحقیقی جائزہ	Fikr o Nazar
	شاہ ولی اللہ رحمۃ اللہ علیہ: جلالت علمی اور تفردات	ابحاث
Dr. Muhammad Abdullah	تبصرہ کتاب: رسول عربی ﷺ اور حسن کاری	AFKAR
	اہل کتاب سے اخذ و استفادہ - ایک تجزیاتی مطالعہ	Al-Qalam
	Laq of Blasphemy in Non-Muslim Countries – An Analytical Study	Al-Qalam
Dr. Ishtiaq Ahmad Gondal	منتخب اردو تفاسیر میں حیوانات کے تغذیاتی پہلو اور جدید حیاتیاتی تحقیقات ایک تجزیاتی مطالعہ	Al-Qalam
	اسلام میں فنون لطیفہ اور تفریحات کی شرعی حدود و قیود	AFKAR
	تخلیق انسان کے مختلف مراحل: قرآنی آیات اور علم جنین کے تناظر میں	Al-Qalam
Dr. Hafiz M. Abdul Qayyum	”ووجدک ضالاً فہدی“ کی تعبیرات میں اختلاف و تطابق: منتخب اردو تراجم قرآن کا مطالعہ	Al-Qamar
Dr. Hafiz Abdul Basit Khan	حفاظت خوراک (Food Safety) کا معیار HACCP اور حلال سے تقابل و تطابق - ایک تحقیقی مطالعہ	AFKAR
	فضاء میں احکام طہارت کی فعالیت	Al-Qalam
	ڈی این اے ٹیسٹ سے حدود قصاص کا اثبات اور عصری اجتہادات	Journal of Islamic & Religious Studies
	شق قمر سے متعلق مفسرین و محدثین کی آراء کا تحقیقی جائزہ	Ma'arif-e-Islami
	لامع الدراری علی جامع البخاری اور فقہ الحدیث - تحقیقی جائزہ	Zia-e-Tahqeeq
	ڈی این اے ٹیسٹ سے حدود قصاص کا اثبات اور عصری اجتہادات	Jihat al Islam
	علم الاعتبار تعارفی جائزہ	Epistimology
	(غیر منصوص مسائل کے حل میں قیاس سے استفادہ) فتاویٰ رضویہ اور امداد الفتاویٰ کا تحقیقی جائزہ	Al-Qalam
	معاصر اجتہاد میں مقاصد شریعت کی فعالیت ایک تحقیقی جائزہ	Abhath



Dr. Samina Saadia	علامہ قطانی (م ۹۲۳ھ)۔ حیات و خدمات	Al-Idah
	Islamic Concept of Food and its effects on Human beings	Jihat al Islam
	مغربی ذرائع ابلاغ کا کردار اور امت مسلمہ کی ذمہ داریاں	تعلیم و تحقیق
	عصری ٹکنیری ساج کے مسائل: نوجوانوں کا کردار اور ذمہ داریاں	العلم
	Relation-Building & Personality a Concept of Development Based on Islamic Teachings	اصول الدین

○ **Conferences, Seminars and Workshops, etc.** (sponsors, oral Presentation + Poster Presentation)

Date : 12-11-2019

Topic : اُمت مسلمہ میں اختلاف کا آغاز و اسباب (1)

Speaker: Prof. Dr. Hafiz Abdullah

Date : 11-01-2020

Topic : اُمت مسلمہ میں اختلاف کا آغاز و اسباب (2)

Speaker: Prof. Dr. Hafiz Abdullah

Date : 03-12-2019

Topic : علم قرأت قرآن کی ضرورت و اہمیت

Speaker: Lecture by Prof. Dr. Hafiz Abdullah

Date : 22-09-2019

Topic : معاصر اجتہاد کے اصول مباحث

Speaker: Mr. Muhammad Usman

Date : 22-09-2019

Topic : غیر منصوص مسائل کے حل میں فتاویٰ رضویہ اور امداد الفتاویٰ کا منہج

Speaker: Hafiz Abrar

Date : 04-09-2019

Topic : عہد نبوی میں تمدنی ترقی کے اصول

Speaker: Mr. Muhammad Irfan

Date : 05-09-2019

Topic : لفظ کے معنی میں استعمال کے مباحث اور انحرافی تفاسیر ایک تنقیدی مطالعہ

Speaker: Ms. Zolfishan Naseer

Date : 07-10-2019

Topic : قرآن حکیم کے مسائل خصوص کے استنباط میں امام غزالی اور مولانا اشرف علی تھانوی کے منابع و اسالیب۔۔۔ تحقیقی جائزہ

Speaker: Ms. Ramla Khan

Date : 17-06-2019

Topic : نکاح فل۔ وقف ماڈل کی فقہی بنیادیں (تحقیقی و تنقیدی جائزہ)

Speaker: Mr. Saeed Ahmad



- Date : 08-05-2019
 Topic : مرقاة المفاتیح کی روشنی میں حرمین کے روزمرہ زندگی کے تغیرات اور دینی و اجتماعی معاملات کا تذکرہ
 Speaker: Mr. Misba-ul-Hassan
- Date : 07-08-2019
 Topic : اردو تفسیری ادب میں لغوی اور لہجی مباحث
 Speaker: Mr. Ghulam Nabi Alvi
- Date : 07-08-2019
 Topic : معاصر معاشی و معاشرتی مسائل میں رخصت کی شرعی حیثیت، مذاہبِ اربعہ کی آراء کا تحقیقی و تجزیاتی مطالعہ
 Speaker: Mr. Kashif Bilal
- Date : 17-02-2020
 Topic : قول صحابی سے تابعی کا اختلاف اور اس کی شرعی حیثیت
 Speaker: Mr. Anwar Hussain
- Date : 07-08-2019
 Topic : مشہور ای نمبر ز اور ان کی شرعی حیثیت کا بیان
 Speaker: Mr. Numan Anwar
- Date : 17-06-2019
 Topic : معاصر مالیاتی مسائل میں تلفیق بین المذاہب کی فعالیت
 Speaker: Mr. Abdur Razzaq
- Date : 08-01-2020
 Topic : اہل کتاب صحابہ و تابعین پر مستشرقین اور دیگر گروہوں کے اعتراضات کا ناقدانہ مطالعہ
 Speaker: Mr. Tariq Mahmood

Faculty of Law

PUNJAB UNIVERSITY LAW COLLEGE

- **Projects:** Completed (Yes)
 Duration 01 Year, Sponsoring agency/funding: Punjab University/PHEC/HEC
- **Publications:** Books/Edited

Author Name	Book Name	Publisher
Prof. Dr. Shazia Qureshi	Intellectual Property: Rights and Innovation	University of Lahore Press

RESEARCH COLLABORATION

- **Foreign Linkages:** West Law
- **Funding Grants for R&D:** West Law



Faculty of Life Sciences

CENTRE FOR CLINICAL PSYCHOLOGY

○ Research & Development

The Faculty and research students of CCP worked hard to produce substantial and fruitful researches. The faculty members are actively involved during lockdown in supervising and conducting researches which would not only be beneficial for the country but would add to the empirical knowledge around the globe. The researches were conducted on varied topics ranging from psychopathology, cultural challenges, work and domestic issues, issues related to physical health, and family dynamics. Moreover, development of Indigenous Assessment Tools, Translation and Adaptation of the Assessment tools and Norm Development are the major areas of research at the Centre. Research is part of all academic and training programs and students are provided with individualized research supervision. Research courses are taught at both undergraduate and graduate level. Individual research projects are essential requirement for the students of doctorate and undergraduate level. Research supervisors are assigned to every student undergoing their research project at undergraduate and doctorate level.

○ Projects: Newly launched

Sr. No.	Name of Faculty	Project Name	Duration	Sponsoring Agency	Funding	Present Status
1	Ms. Humaira Naz	Determinants of Psychological Well Being of Women with Menopausal Transition	One Year	CCP	0.159	Ongoing Process
2	Dr. Saima Dawood	Childhood Maltreatment and Self Esteem in Self-Harm Behaviors (Non Suicidal Self Injury)	One Year	CCP	0.500	Ongoing Process
3	Ms. Faiza Safdar	Inflated Responsibility, Meta-Cognition and Anxiety Control in Obsessive Compulsive Symptomology	One Year	CCP	0.153	Ongoing Process

○ Publications

Sr.	Name of Faculty	Chapter Title	Book Title
1	Ms. Rabia Dasti	Ethical and Moral Dilemmas in Psychotherapy: Applying a Religiously Sensitive Framework to Therapy.	Working With Muslim Clients in the Helping Professions
2	Ms. Hira Liaqat	Asian Subcontinent Challenges in Sexual Issues	Cultural Differences and the Practice of Sexual Medicine: A Guide for Health Practitioners.



Books/Edited/Chapters

- **Conferences, Seminars and Workshops, etc.** (Organized by Centre for Clinical Psychology)

National and International Conferences Conducted

Sr. No.	Title of Conference	Held on
1	International E-Conference on Psychosocial Wellness and Rehabilitation: Challenges for Practitioners During Pandemic	2 nd & 3 rd December, 2020

- **Workshops and Seminars Conducted**

Sr No	Name of Resource Person	Mode	Total Revenue Generated		Topic	Date
			70% (Resource Person)	30% (Centre's Share)		
1	Dr. Iram Zehra Bokharey	Physical	RS. 9000/-	RS. 4800/-	Assessment and Management of Conversion Disorder (Functional Neurological Symptom Disorder)	3 rd November, 2020
2	Dr. Fahad Riaz	Online	RS. 5500/-	RS. 2670/-	Choosing Appropriate Qualitative Approach and Publication tips	6 th November, 2020
3	Dr. Nighat Gillani	Physical	RS. 9950/-	RS. 6150/-	Solution Focused Brief Therapy	9 th November, 2020
4	Ms. Mirat Gul	Physical	RS. 3500/-	RS. 1980/-	Suicide: Assessment and Management	11 th November, 2020
5	Dr. Fayyaz Ahmad	Physical	RS. 5000/-	RS. 2580/-	Hands on training on EFA & CFA	12 th November, 2020
6	Dr. Azher H. Qamar	Physical	RS. 9000/-	RS. 4620/-	Structuring Phenomenological Research: A Qualitative Approach to Clinical Investigation	14 th November, 2020
7	Dr. Neelofar Rehman Ms. Uzma Ilyas	Online & Physical	RS. 12000/- RS. 5500/-	RS. 10200/-	Acceptance and Commitment (Therapy- Level 1)	16 th , 19 th and 21 st November, 2020
8	Dr. Patricia Omidian Ms. Hira Liaqat	Online	RS. 5000/- RS. 2500/-	RS. 3300/-	Psychosocial Support and Community Wellness	24 th , 25 th and 26 th November, 2020
9	Ms. Rabia Farhan	Online	RS. 420/-	RS. 180/-	ABA and Verbal Behavior Therapy for Children with Autism and other Communication Issues.	1 st December, 2020
10	Mr. Arshad Mehmood	Online	Nil	RS.210/-	Evidence based practice in Voice Disorder	8 th December, 2020
11	Ms. Fakhra Wakeel	Online	RS.5110/-	RS.2190/-	Meta-Cognitive Therapy for Obsessive Compulsive Disorder and Depression	8 th December, 2020



12	Dr. Saima Ehsan	Online	RS.1000/-	RS.480/-	RS.2370/-	11 th December, 2020
13	Ms. Khola Tahir Ms. Mubeena Munir	Physical	RS.5000/-	RS.2370/-	Mediation Analysis through AMOS and PROCESS	22 nd December, 2020
			78480	41730		

○ **Conferences, Seminars and Workshops, etc.** (sponsors, oral presentation+poster presentation)

Sr.	Name of Faculty	Title of the Paper & Conference details
1	Ms. Hidna Iqbal	“Personality Hardiness, Spiritual Intelligence and Stress Related Growth in individual having Physical Disability” paper presented in 12 th Annual Muslim Mental Health Conference: The Intersection of Spirituality and Mental Health Practice (10 th – 12 th July, 2020).
2	Dr. Saima Dawood	Attended “2 nd International E-Conference on COVID-19 The Changing Horizons (20 th July, 2020).
3	Ms. Aasma Yousuf	Attended “2 nd International E-Conference on COVID-19 The Changing Horizons (20 th July, 2020)
3	Dr. Saima Dawood	“Lived Experiences of the Recovered Corona Patients: An Exploratory Study” paper presented in International E-Conference on Psychosocial Wellness & Rehabilitation: Challenges for Practitioners during Pandemic, at Centre for Clinical Psychology, University of the Punjab, Lahore (2 nd & 3 rd December, 2020).
4	Dr. Saima Dawood	Efficacy of Voice Rehabilitation on Acoustic, Aerodynamic and Auditory-Perceptual Parameters of Voice in Children with Cleft Lip and Palate paper presented in International E-Conference on Psychosocial Wellness & Rehabilitation: Challenges for Practitioners during Pandemic, at Centre for Clinical Psychology, University of the Punjab, Lahore (2 nd & 3 rd December, 2020).
5	Dr. Saima Dawood	Acoustic Analysis of Voice in Children with Orofacial Clefts and Typically Developing Children” paper presented in International E-Conference on Psychosocial Wellness & Rehabilitation: Challenges for Practitioners during Pandemic, at Centre for Clinical Psychology, University of the Punjab, Lahore (2 nd & 3 rd December, 2020).
6	Dr. Saima Dawood	Stress Management of Caregivers of Children with Autism Spectrum Disorder” paper presented in International E-Conference on Psychosocial Wellness & Rehabilitation: Challenges for Practitioners during Pandemic, at Centre for Clinical Psychology, University of the Punjab, Lahore (2 nd & 3 rd December, 2020).
7	Dr. Saima Dawood	“Effectiveness of Cycle Phonological Pattern Approach in Children with Hearing aids and Cochlear Implant” poster presented in International E-Conference on Psychosocial Wellness & Rehabilitation: Challenges for Practitioners during Pandemic, at Centre for Clinical Psychology, University of the Punjab, Lahore (2 nd & 3 rd December, 2020).



8	Dr. Aisha Sitwat	“Urdu Narrative Skills of School-Aged Children with Hearing Aids and Cochlear Implant” poster presented in International E-Conference on Psychosocial Wellness & Rehabilitation: Challenges for Practitioners during Pandemic, at Centre for Clinical Psychology, University of the Punjab, Lahore (2 nd & 3 rd December, 2020).
9	Dr. Aisha Sitwat	“Rejection Sensitivity, Trait Mindfulness and Psychological Distress in University Students” paper presented in International E-Conference on Psychosocial Wellness & Rehabilitation: Challenges for Practitioners during Pandemic, at Centre for Clinical Psychology, University of the Punjab, Lahore (2 nd & 3 rd December, 2020).
10	Ms. Humaira Naz	“Personality Traits, Locus of Control and Covid-19 Related Protective Behaviors in Housewives” paper presented in International E-Conference on Psychosocial Wellness & Rehabilitation: Challenges for Practitioners during Pandemic, at Centre for Clinical Psychology, University of the Punjab, Lahore (2 nd & 3 rd December, 2020).
11	Ms. Humaira Naz	“Exploration of Perceptions of Communication difficulty and Reactions of Persons toward their stuttering” poster presented in International E-Conference on Psychosocial Wellness & Rehabilitation: Challenges for Practitioners during Pandemic, at Centre for Clinical Psychology, University of the Punjab, Lahore (2 nd & 3 rd December, 2020).
12	Ms. Tehreem Arshad	“Screen Time and Language Development in Preschool Children” paper presented in International E-Conference on Psychosocial Wellness & Rehabilitation: Challenges for Practitioners during Pandemic, at Centre for Clinical Psychology, University of the Punjab, Lahore (2 nd & 3 rd December, 2020).
13	Ms. Aasma Yousaf	“Distress Tolerance, Interoceptive Awareness, Cognitive Emotional Regulation and Sleep Problems in Young Adults during COVID-19 Pandemic” paper presented in International E-Conference on Psychosocial Wellness & Rehabilitation: Challenges for Practitioners during Pandemic, at Centre for Clinical Psychology, University of the Punjab, Lahore (2 nd & 3 rd December, 2020).
14	Ms. Aasma Yousuf	“Maternal Practices, Cognitive Home Environment, and SocialEmotional Development in Children Using Electronic Devices” paper presented in International E-Conference on Psychosocial Wellness & Rehabilitation: Challenges for Practitioners during Pandemic, at Centre for Clinical Psychology, University of the Punjab, Lahore (2 nd & 3 rd December, 2020)
15	Ms. Aasma Yousuf	“CBT with Hoarding Disorder” poster presented in International E-Conference on Psychosocial Wellness & Rehabilitation: Challenges for Practitioners during Pandemic, at Centre for Clinical Psychology, University of the Punjab, Lahore (2 nd & 3 rd December, 2020).
16	Ms. Aasma Yousaf	“Betrayal Trauma, Rejection Sensitivity, Interpersonal Sensitivity and Social Anxiety” paper presented in International E-Conference on Psychosocial Wellness & Rehabilitation: Challenges for Practitioners during Pandemic, at Centre for Clinical Psychology, University of the Punjab, Lahore (2 nd & 3 rd December, 2020)



17	Ms. Nazia Bashir	“Development of Indigenous Conversation Cards for Social Communication Skills in Typically Developing Children” paper presented in International E-Conference on Psychosocial Wellness & Rehabilitation: Challenges for Practitioners during Pandemic, at Centre for Clinical Psychology, University of the Punjab, Lahore (2 nd & 3 rd December, 2020).
18	Dr. Nayab Iftikhar	“Development of Communication Book using Core Vocabulary of Urdu Language” paper presented in International E-Conference on Psychosocial Wellness & Rehabilitation: Challenges for Practitioners during Pandemic, at Centre for Clinical Psychology, University of the Punjab, Lahore (2 nd & 3 rd December, 2020).
19	Dr. Nayab Iftikhar	“Corona Anxiety, Psychological Distress and rate of fluency in individuals with stammering” paper presented in International E-Conference on Psychosocial Wellness & Rehabilitation: Challenges for Practitioners during Pandemic, at Centre for Clinical Psychology, University of the Punjab, Lahore (2 nd & 3 rd December, 2020).
20	Dr. Nayab Iftikhar	“Articulation and Speech Intelligibility in Children with Post-Ankyloglossia: A Cross-Sectional Study” paper presented in International E-Conference on Psychosocial Wellness & Rehabilitation: Challenges for Practitioners during Pandemic, at Centre for Clinical Psychology, University of the Punjab, Lahore (2 nd & 3 rd December, 2020).
21	Dr. Nayab Iftikhar	“Pragmatic Language Skills of Children with Down Syndrome and Typically Developing Children: A Comparative Study” paper presented in International E-Conference on Psychosocial Wellness & Rehabilitation: Challenges for Practitioners during Pandemic, at Centre for Clinical Psychology, University of the Punjab, Lahore (2 nd & 3 rd December, 2020).
22	Dr. Nayab Iftikhar	“Development of Speech and Language Impairment Questionnaire “ paper presented in International E-Conference on Psychosocial Wellness & Rehabilitation: Challenges for Practitioners during Pandemic, at Centre for Clinical Psychology, University of the Punjab, Lahore (2 nd & 3 rd December, 2020).
23	Dr. Nayab Iftikhar	“Swallowing Difficulties and Its Impact on Quality of Life of Older Adults” poster presented in International E-Conference on Psychosocial Wellness & Rehabilitation: Challenges for Practitioners during Pandemic, at Centre for Clinical Psychology, University of the Punjab, Lahore (2 nd & 3 rd December, 2020).
24	Ms. Rabia Dasti	Management of Antisocial Personality Disorder: A Case Study” poster presented in International E-Conference on Psychosocial Wellness & Rehabilitation: Challenges for Practitioners during Pandemic, at Centre for Clinical Psychology, University of the Punjab, Lahore (2 nd & 3 rd December, 2020).



25	Ms. Rabia Dasti	“Turn Taking and Eye Contact Skills: Development of Social Stories in Typically Developing Children” poster presented in International E-Conference on Psychosocial Wellness & Rehabilitation: Challenges for Practitioners during Pandemic, at Centre for Clinical Psychology, University of the Punjab, Lahore (2 nd & 3 rd December, 2020).
26	Ms. Rabia Dasti	“Family Environment, Loneliness, and The Exposure of Explicit Content in Young Adults” paper presented in International E-Conference on Psychosocial Wellness & Rehabilitation: Challenges for Practitioners during Pandemic, at Centre for Clinical Psychology, University of the Punjab, Lahore (2 nd & 3 rd December, 2020).
27	Ms. Mubeena Munir	“Efficacy of Traditional Articulation Therapy (Tat) In Children with Hearing AIDS” paper presented in International E-Conference on Psychosocial Wellness & Rehabilitation: Challenges for Practitioners during Pandemic, at Centre for Clinical Psychology, University of the Punjab, Lahore (2 nd & 3 rd December, 2020).
28	Ms. Mubeena Munir	“Mindful Awareness and Nomophobia in University Students” paper presented in International E-Conference on Psychosocial Wellness & Rehabilitation: Challenges for Practitioners during Pandemic, at Centre for Clinical Psychology, University of the Punjab, Lahore (2 nd & 3 rd December, 2020).
29	Ms. Hira Liaqat	“Personality type, Professional Commitment and Professional Jealousy in University Teachers” paper presented in International E-Conference on Psychosocial Wellness & Rehabilitation: Challenges for Practitioners during Pandemic, at Centre for Clinical Psychology, University of the Punjab, Lahore (2 nd & 3 rd December, 2020).
30	Ms. Hira Liaqat	“Family Functioning, Cognitive Autonomy and Psychological Adjustment in Adolescents” paper presented in International E-Conference on Psychosocial Wellness & Rehabilitation: Challenges for Practitioners during Pandemic, at Centre for Clinical Psychology, University of the Punjab, Lahore (2 nd & 3 rd December, 2020).
31	Ms. Hira Liaqat	“Peer Victimization, Mindfulness and Social Anxiety in Adolescents” paper presented in International E-Conference on Psychosocial Wellness & Rehabilitation: Challenges for Practitioners during Pandemic, at Centre for Clinical Psychology, University of the Punjab, Lahore (2 nd & 3 rd December, 2020).
32	Ms. Khola Tahir	“Effort Reward Imbalance, Work Motivation and Job Satisfaction among Special Education Teachers” paper presented in International E-Conference on Psychosocial Wellness & Rehabilitation: Challenges for Practitioners during Pandemic, at Centre for Clinical Psychology, University of the Punjab, Lahore (2 nd & 3 rd December, 2020).
33	Ms. Khola Tahir	“Impostor Phenomenon, Future Anxiety and Self-handicapping Tendencies among Lecturers of Government and Private Universities” paper presented in International E-Conference on Psychosocial Wellness & Rehabilitation: Challenges for Practitioners during Pandemic, at Centre for Clinical Psychology, University of the Punjab, Lahore (2 nd & 3 rd December, 2020).



34	Ms. Khola Tahir	“Efficacy of Oro Motor Exercises and Traditional Articulation Therapy for the Management of Articulation in Adolescents with Cerebral Palsy” poster presented in International E-Conference on Psychosocial Wellness & Rehabilitation: Challenges for Practitioners during Pandemic, at Centre for Clinical Psychology, University of the Punjab, Lahore, (2 nd & 3 rd December, 2020).
35	Ms. Khola Tahir	“Perceived Parental Support, Communication Skills and Quality of Life among Adolescent Hearing Aid Users” poster presented in International E-Conference on Psychosocial Wellness & Rehabilitation: Challenges for Practitioners during Pandemic, at Centre for Clinical Psychology, University of the Punjab, Lahore (2 nd & 3 rd December, 2020).
36	Ms. Nuzhat-Ul-Ain	“Trait Emotional Intelligence, Secondary Trauma Self-efficacy and Compassion Fatigue among Doctors” paper presented in International E-Conference on Psychosocial Wellness & Rehabilitation: Challenges for Practitioners during Pandemic, at Centre for Clinical Psychology, University of the Punjab, Lahore (2 nd & 3 rd December, 2020).
37	Ms. Nuzhat-Ul-Ain	“Effect of Tapping and Pacing Rate Control Methods on Speech Rate and Intelligibility of Patients with Spastic and Ataxic Cerebral Palsy” paper presented in International E-Conference on Psychosocial Wellness & Rehabilitation: Challenges for Practitioners during Pandemic, at Centre for Clinical Psychology, University of the Punjab, Lahore (2 nd & 3 rd December, 2020).
38	Ms. Arooj Karim Khan	“Effectiveness of Stuttering Modification Therapy in Adults who Stutter” paper presented in International E-Conference on Psychosocial Wellness & Rehabilitation: Challenges for Practitioners during Pandemic, at Centre for Clinical Psychology, University of the Punjab, Lahore (2 nd & 3 rd December, 2020).

○ **Research Journals 2019-2020 (Authors Name Article Name, Journal with category)**

Sr. No.	Name of Author	Name of Co-Author	Title of Research Paper	Name of Journal	Volume
1	Dr. Saima Dawood	Ms. Zahida Hashmat	Efficacy of Metacognitive Therapy for Patients with Obsessive Compulsive Disorder	Pakistan Journal of Clinical Psychology (PJCP)	2019, (2)
2	Dr. Saima Dawood	Ms. Noreena Kausar	Development of an Indigenous Parental Perceived Stress Scale	Pakistan Journal of Psychological Research (PJPR)	2019, 34(2)
3	Dr. Saima Dawood	Ms. Namra Shahzadi	Translation, Validation and Factor Structure of The Handling Bullying Questionnaire in Pakistan	Pakistan Journal of Psychological Research (PJPR)	2019, 34(3)
4	Dr. Saima Dawood	Noreena Kausar, Bushra Akram & Fayyaz Ahmad	Socio-Demographic Variables and Parental Stress of Children with Autism Spectrum Disorder	Pakistan Journal of Social Issues	2019, Vol. X 196-209



5	Dr. Saima Dawood	Samer Fatima & Mubeena Munir	Parenting Styles, Moral identity and Prosocial Behaviors in Adolescents	Current Psychology	Doi: 10.1007/s12144-020-00609-3
6	Dr. Saima Dawood	Anaum Khalid	Social Support, Self-Efficacy, Cognitive Coping and Psychological Distress in Infertile Women.	Archives of Gynecology and Obstetrics	-
7	Dr. Aisha Sitwat	Afshi Yahya	Impulsivity in Clinical and non- clinical populations; A comparative Study	Rawal Medical Journal (2019)	44(4), 768-772
8	Dr. Nayab Iftikhar	Hamda Muzaffar, Dr. Muhammad Sikander Ghayas Khan & Sumera Nawaz Malik	Development of Articulation Screening Tool to Assess the Articulation Errors in Urdu Speaking School Going Children	UMT Education Review (UER)	2019, 2(1) Spring Issue
9	Dr. Nayab Iftikhar	Dr. Sikander Ghayas Khan, Ayesha Kamal Butt, Hafsa Noreen, Ayesha Kamal Butt, Maroof Khan, & Rabia Azmat	Perception of speech and language pathologists towards augmentative and alternative communication in Pakistan	Journal of Pakistan Medical Association (JPMA)	2019, 69(2)
10	Humaira Naz	Rukhsana Kausar	Acceptance and Commitment Therapy Integrated with Stuttering Management: A Case Study	Bahria Journal of Professional Psychology	2020, 19(2)
11	Tehreem Arshad	Warisha Zafar	The relationship between Social Comparison and Submissive Behaviors in people with Social Anxiety: Paranoid Social Cognition as the Mediator.	Psych Journal	Feb, 2020 1-10
12	Aasma Yousaf	Aisha Sitwat & Sara Latif	Development of Child Abuse and Neglect Experience Screening Questionnaire for Patients Suffering from Anxiety and Depression	Journal of Pakistan Psychiatric Society (JPPS)	2019, 14(3), 30-33
13	Faiza Safdar	Nashva Khan	Parental Psychological Control & Aggression among Adolescents: Mediating Role of Emotional Dysregulation	Pakistan Journal of Psychological Research	2019, 34(3), 547-564



14	Faiza Safdar		Work- Family Spillover and Family Functioning in Married Working Women	Pakistan Journal of Psychological Research	2019, 34, 773-786
15	Faiza Safdar	Nuzhat-Ul-Ain	Self-Construal & Work Family Spillover: Moderating Effect of Perceived Spousal Reciprocity in Married Working Women	Indian Journal of Psychology & Education (IJPE)	2019, 9(2), 61-67
16	Faiza Safdar	Nashi Khan	Stigma, Cognitive Emotional Regulation and Psychological Distress in Victims of Women Trafficking	Bahria Journal of Professional Psychology	2020 19(2), 75-87.
17	Faiza Safdar	Sobia Falak, Nuzhat-ul- Ain	Perceived Discrimination Social Support & Psychological Distress in Transgenders	Psych Journal	2020 1-9
18	Faiza Safdar	Salman Ahmed	Orientation Motivation & Competitive Anxiety in Players of Domestic Cricketers	Pakistan Journal of Psychological Research	2020 35 (1), 87-105
19	Rabia Dasti	Nuzhat-ul-Ain	Resilience & Psychological Wellbeing in Hostel Students	Pakistan Journal of Professional Psychology Research & Practice	2019, 9, 31-44
20	Hidna Iqbal	Fakhra Ahmad	Self-Silencing and Marital Adjustment in Women with and without Depression	Pakistan Journal of Psychological Research	2019, 34(2) 311-330
21	Khola Tahir	Dr. Nashi Khan	Mediating Role of Body Image Between Sexual Functioning & Intimacy in Pakistani Women with Breast cancer	Psycho- Oncology	2020, DOI: 10.1002/pon.5563
22	Mubeena Munir	Dr. Saima Dawood	Weight stigma and Disordered Eating Behaviours in Pakistani Overweight Adolescents: The medicating role of body Esteem.	Eating and Weight Disorders Studies on Anorexia, Bulimia and Obesity	2020, DOI: 10.1007/s40519-020-01038-8

○ **Research Journals**

▪ **Journal of the Centre**

Pakistan Journal of Professional Psychology: Research and Practice (PJPPRP) is a research journal published by the Center for Clinical Psychology, University of the Punjab, Lahore, Pakistan on annual basis since. It started its biannual publication since 2018, when Dr. Saima Dawood took charge as a Director, Centre for Clinical



Psychology, University of the Punjab, Lahore, Pakistan. To date, the journal has published 10 Volumes and 12 issues. First issue of Volume 11 has been published and second issue is in its finalization process.

2020 has been a year of tremendous growth of Pakistan Journal of Professional Psychology: Research and Practice (PJPPRP) as it achieved a big milestone. During the first wave of COVID-19 when the country went into lockdown, the working of the journal was not halted. The Editorial and Advisory Board of PJPPRP was expanded and at present there are over 50 members in Editorial and Advisory Board. The editorial and peer-review process was continued during COVID-19 along with the subsequent online publication of the issues.

The major achievement of Pakistan Journal of Professional Psychology: Research and Practice (PJPPRP) was the promotion of the journal from Z-Category to Y-Category. An application was submitted in March 2020 through HEC Journal Recognition System (HJRS). These efforts remained successful and the journal was promoted to Y-Category. Furthermore, the journal has been Indexed in Tehqeeqat: A Research Indexing System (<http://tehqeeqat.org>) developed by Center for Language Engineering (CLE), Al-Khawarizmi Institute of Computer Science (KICS), University of Engineering and Technology (UET), Lahore. After letter exchange and meetings, not only the previous record has been uploaded but also the recent issues are being timely uploaded on the website for the readers.

- **Psychological Abstract**

Centre for Clinical Psychology published its Psychological Abstracts for the year 2011 to 2018. The issue of 2019 the psychological abstract booklet is in press. It slowed down due to Covid-19. The Psychological Abstract is an effort to highlight the indigenous psychological Research Work being carried out at the Centre with reference to Clinical Psychology and its associated disciplines.

It will prove to be benefiting for the students across the globe in getting acquainted with the quality of research work being conducted in University of the Punjab, Lahore.

CENTRE OF EXCELLENCE IN MOLECULAR BIOLOGY

- **Research & Development**

Centre of Excellence in Molecular Biology continues its aim of advance teaching and research in the field of molecular biology as in previous years. It has provided a platform to the scholars and scientists to work in an innovative environment. This state-of-the-art molecular biology research facility has greatly contributed in the development, improvement and identification of new methods for disease diagnosis and drug development. Different research groups like stem cells, plant genomics, plant biotechnology, seed biotechnology, Plant biosafety studies Molecular Medicine, hereditary diseases, applied and functional genomics, biopharmaceuticals, forensic science, molecular



virology and bioinformatics groups are working in an integrated manner. The excellent teaching and research environment in the Centre attract the scientists and researchers from national and international organizations to work and exchange knowledge for the betterment of humanity.

○ **Projects: Completed**

Sr. #	Name of the Projects	Sponsoring Agency	Funding Million / Rs.
1	Studies on streamlined Molecular Approaches to Hepatitis C Implications for Patient Management and Public health	HEC	4,520,288
2	Identification and Transcriptome Profiling of Novel micro RNAs in Hepatitis C Virus Induced Liver Diseases by Next Generation Sequencing of Small RNA cDNA Libraries	HEC	3,019,210

○ **Projects: Newly Launched**

Sr. #	Name of the Projects	Sponsoring Agency	Funding Million / Rs.
1	Indigenous Low-cost Production of Ultra Pure Taq Polymerase and PCR mix for COVID-19 Clinical Diagnostic Kits	HEC	10,453,254

○ **Publications: National and international**

- Yousaf I, Tabassum B, Khan A, Sajid IA, Adeyinka OS, Nasir IA and Asif M. (2019). Molecular cloning, structural analysis and expression in *Escherichia coli* of a chitinase gene from *Trichoderma harzianum*. *Biocell*.43 (5-1): 286-295
- Salisu B I, Ali A, Yaqoob A, Rao AQ, Innayat U and Husnain T (2019). Assessing the fate of recombinant plant DNA in rabbit's tissues fed genetically modified cotton. *J Anim Physiol Anim Nutr* 104(1):343-351. doi: 10.1111/jpn.13243.
- Basit Jabbar, Iqbal MS, Anicet A. Batcho, Idrees A. Nasir, Bushra Rashid, Tayyab Husnain and Robert J. Henry (2019). Target prediction of candidate miRNAs from *Oryza sativa* for silencing the RYMV genome. *Computational Biology and Chemistry*. Doi: 10.1016/j.compbiolchem.2019.107127
- Yaqoob, A.; Shahid, A. A.; Salisu, I. B.; Azam, S.; Ahmed, M.; Rao, A. Q. (2019). Effects of Cry toxins on non-target soil bacteria during a 2-year follow-up study. *Spanish Journal of Agricultural Research*, Volume 17, Issue 2, e0303. <https://doi.org/10.5424/sjar/2019172-14605>
- Bajwa F, Ahmed N, Khan M.A, Azam F, Akram M, Tahir S, Zafar A.U (2019).
- Evaluating the ion exchange chromatography for matrix-assisted pegylation and purification of consensus interferon. *Biotechnology and Applied Biochemistry* <https://doi.org/10.1002/bab.1832>
- Naseem M.U, Ahmed N, Khan M.A, Tahir S, Zafar. (2019). Production of potent long-lasting consensus interferon using albumin fusion technology in *Pichia pastoris* expression system. *Protein Expression and Purification* <https://doi.org/10.1016/j.pep.2019.105509>



- Sarwar MB, Ahmad B, Rashid B, Hassan S, Husnain T. (2019) Sequence Analysis of Alpha Crystalline Domain of Small Heat Shock Proteins (sHSPs) Family in different plant species. *Iranian Journal of Science and Technology, Transactions A: Science*. 43: 1457-1467 <https://doi.org/10.1007/s40995-018-0658-x>
- Ali M, Shahid AA and Subhani MN. (2019). Mapping and monitoring for the valuation of soil fungi and chili damping off. *Journal of animal and plant sciences*, 29(3), 737-745.
- Wahid B, Altaf S, Naeem N, Ilyas N and Idrees M. (2019). Scoping Review of Crimean-Congo Hemorrhagic Fever (CCHF) Literature and Implications of Future Research. *Journal of the College of Physicians and Surgeons Pakistan*
- Vol. 29 (6): 566-573. doi: 10.29271/jcpsp.2019.06.563
- Wahid B, Ali A and Idrees M. (2019). Prevalence of thyroid stimulating hormone dysfunction among sofosbuvir-treated HCV-infected patients: A real-world clinical experience. *Journal of Medical Virology*, 91(3):514-517.
- Aftab M, Naz S, Rafique S, Ali A and Idrees M (2019). Characterization of Hepatitis Delta Virus among pregnant women of Pakistan. *Viral Immunology*. *Viral Immunology*. 32 No. 8 <https://doi.org/10.1089/vim.2019.0048>
- Iqbal T, Rashid U, Idrees M, Afroz A, Kamili S and Purdy MA. (2019). A novel avian isolate of hepatitis E virus from Pakistan. *Virology Journal*; 16, Article number: 142
- Amin I, Vajeeha A, Younas S, Afzal S, Shahid M, Nawaz R, Khan MU, Idrees M. (2019). HSV-1 Infection: Role of Viral Proteins and Cellular Receptors. *Critical Reviews TM in Eukaryotic Gene Expression*; 29(5): 461–469.
- B Yang, M Munir, S Rafique, H Ahmad, JB Liu. (2019). Computational Analysis of Imbalance-Based Irregularity Indices of Boron Nanotubes. *Processes* 7 (10), 678
- Noreen S, Ghumman SA, Batool F, Ijaz B, Basharat M, Noreen S, Kausar T, Iqbal S. (2019). Terminalia arjuna gum/alginate in situ gel system with prolonged retention time for ophthalmic drug delivery. *Int J Biol Macromol*. doi: 10.1016/j.ijbiomac.2019.10.193
- Zahra F.T, Hussain M, Khan K. Aslam, M.A Shafique, M Rubab and A Javeed S. (2019). Genetic polymorphism of Y-chromosomal STRs in Gujjar population of Punjab. *Int J Legal Med.* (<https://doi.org/10.1007/s00414-019-02227-6>).
- Aslam M.A, Hussain M, Khan K. Zahra, F.T Shafique and M Javeed S. (2019). Haplotype diversity of 17 Y-STRs in Sheikh population of Punjab. *Int J Legal Med*. <https://doi.org/10.1007/s00414-019-02202-1>.
- Jiao X, Khan SY, Kaul H, Butt T, Naeem MA, Riazuddin S, Hejtmancik JF and Riazuddin SA. (2019). Autosomal recessive congenital cataracts linked to HSF4 in a consanguineous Pakistani family. *PLoS One*; 9; 14(12): e0225010. doi:10.1371/journal.pone.0225010.
- M Azam, S Dikici, S Roman, A Mehmood, AA Chaudhry and I U Rehman. (2019). Addition of 2-deoxy-d-ribose to clinically used alginate dressings stimulates angiogenesis and accelerates wound healing in diabetic rats. *Journal of biomaterials applications* 34 (4), 463-475



- Sajid A, Shafique M, Shahzad M and Shahid A.A (2019). Fingerprint patterns and ridge density variations in Pakistani population: A comparative Study. *Anthropologie International Journal of Human Diversity and Evolution*. (brno) 59, 1: 1-(<https://doi.org/10.26720/anthro.19.11.13.1>).
- Tariq H, Zaigham K, Kousar S and Azhar A. (2019). Genetic contribution of GJB2 gene to hearing impairment in Pakistan. *Advances in Life Sciences*: 7(1);
- Almas, I., Afzal, S., Imtiaz, H., Shaheen, M.A., Daud, M., Saghir, A., Amin, I., Shahid, M. and Idrees, M., 2020. Drug Resistance in Hepatitis C Virus: Future Prospects and Strategies to Combat It. *Critical Reviews™ in Eukaryotic Gene Expression*, 30(4).
- Bukhari, M.M.M., Mir, I., Idrees, M., Afzal, S. and Shahid, M., 2020. Role of MicroRNAs in Establishing Latency of Human Immunodeficiency Virus. *Critical Reviews™ in Eukaryotic Gene Expression*, 30(4).
- Shaheen, M., Afzal, S., Khubaib, B., Amin, I., Shahid, M. and Idrees, M., 2020. Association of IL28B polymorphism with clearance of Hepatitis C Virus: A mini review. *Critical Reviews™ in Eukaryotic Gene Expression*, 30(3).
- Ali, S., Afzal, S., Yousaf, M.Z., Shahid, M., Amin, I., Idrees, M. and Aftab, A., 2020. Paradoxical Role of Dengue Virus Envelope Protein Domain III Antibodies in Dengue Virus Infection. *Critical Reviews™ in Eukaryotic Gene Expression*, 30(3).
- Hassan, A., Saeed, A., Afzal, S., Shahid, M., Amin, I. and Idrees, M., 2020. Applications and hazards associated with carbon nanotubes in biomedical sciences. *Inorganic and Nano-Metal Chemistry*, pp.1-12.
- Afzal, S., Zahid, S., Amin, I., Shahid, M. and Idrees, M., 2020. Prevalence and Upcoming Threats of Chikungunya Virus in Pakistani Population. *Pakistan Journal of Zoology*, 52(4), pp.1623-1626.
- Zahid, K., Shakoor, S., Sajid, H.A., Afzal, S., Ali, L., Amin, I., Shahid, M. and Idrees, M., 2020. Advancements in developing an effective and preventive dengue vaccine. *Future Virology*.
- Shahid, M., Idrees, M., Butt, A.M., Raza, S.M., Amin, I., Rasul, A. and Afzal, S., 2020. Blood-based gene expression profile of oxidative stress and antioxidant genes for identifying surrogate markers of liver tissue injury in chronic hepatitis C patients. *Archives of Virology*, pp.1-14.
- Irshad A, Sarwar N, Sadia H, Malik K, Javed I, Irshad A, Afzal M, Abbas M, Rizvi H (2020) Comprehensive facts on dynamic antimicrobial properties of polysaccharides and biomolecules-silver nanoparticle conjugate *International Journal of Biological Macromolecules* 145 :189-196
- Abrar A, Mughal T A, Sarwar S, Oneeb M, Malik K, Saif, S. Abbas M, (2020). *Aspergillus pakistanicus*: microscopy and phylogenetic analysis of new entomopathogenic fungi isolated from soil of Changa Manga forest, Pakistan. *Applied Ecology and Environmental Research* 18(3):3795-3804. DOI: https://dx.doi.org/10.15666/aeer/1803_37953804



- Nazir A, Malik* K, Qamar H, Basit M H, Liaqat A, Khan M I, Fatima A, Shahid M, Irshad A and Sadia H (2020). A Review: Use of Plant Extracts and their Phytochemical Constituents to Control Antibiotic Resistance in *S. aureus*. *Pure and Applied Biology* 9(1): 220-22.
- Abrar A, Ali Z, Mughal T A, Malik K, Oneeb M, Abbas M, Sarwar S, Qamar H and Nasir R (2020). Effects of entomopathogenic *Aspergillus flavus* on tomato plant (*Solanum lycopersicum*) *Pure and Applied Biology* 9(1):51-57. DOI;<http://dx.doi.org/10.19045/bspab.2020.90057>
- Afreen A, Ahmed R, Mehboob S, Tariq M, Alghamdi H A, Zahid A A, Ali I, Malik K, Hasan A, (2020) Phytochemical-assisted Biosynthesis of Silver Nanoparticles from *Ajuga bracteosa* for Biomedical Applications. *Material Research Express* 7(7):1-13 DOI; <https://doi.org/10.1088/2053-1591/aba5do>
- Rauf B, Irum B, Khan SY, Kabir F, Naeem MA, Riazuddin S, Ayyagari R, Riazuddin SA (2020). Novel mutations in LTBP2 identified in familial cases of primary congenital glaucoma. *Mol Vis.* 24;26:14-25. <https://pubmed.ncbi.nlm.nih.gov/32165823/>
- Iqbal H, Khan SY, Zhou L, Irum B, Ali M, Ahmed MR, Shahzad M, Ali MH, Naeem MA, Riazuddin S, Hejtmancik JF, Riazuddin SA (2020). Mutations in FYCO1 identified in families with congenital cataracts. *Mol Vis.* 2020 Apr 28; 26: 334-344. <https://pubmed.ncbi.nlm.nih.gov/32355443/>
- Nadeem R, Kabir F, Li J, Gradstein L, Jiao X, Rauf B, Naeem MA, Assir MZ, Riazuddin S, Ayyagari R, Hejtmancik JF, Riazuddin SA (2020). Mutations in CERKL and RP1 cause retinitis pigmentosa in Pakistani families. *Hum Genome Var.* 2020 May 12;7:14. ISSN 2054-345X (online)
- Yaqoob, A., Ali Shahid, A., Salisu, I. B., Shakoob, S., Usmaan, M., Shad, M., & Rao, A. Q. (2020). Comparative analysis of Constitutive and fiber-specific promoters under the expression pattern of Expansin gene in transgenic Cotton. *Plos one*, 15(3), e0230519.
- Yaqoob, A., Shahid, A. A., Imran, A., Sadaqat, S., Liaqat, A., & Rao, A. Q. Dual functions of Expansin in cell wall extension and compression during cotton fiber development.
- Zahid, M., Irshad, A., Shakoob, S., Samiullah, T. R., Shahid, N., Iqbal, A., ... & Husnain, T. (2020). Engineered Recombinant NDV-Fusion Protein and Its Polyclonal Antibodies Production.
- Gul, A., Hussain, G., Iqbal, A., Rao, A. Q., ud Din, S., Yasmeen, A., ... & Samiullah, T. R (2020). Constitutive expression of Asparaginase in *Gossypium hirsutum* triggers insecticidal activity against *Bemisia tabaci*. *Scientific Reports*, 10(1), 1-11.
- Shahid, N., Rao, A. Q., Ahad, A., Gul, A., Latif, A., Azam, S., ... & Husnain, T (2020). *E. coli* expression and immunological assessment of expressed recombinant Newcastle disease virus hemagglutinin-neuraminidase protein in chickens. *Acta Virologica*, 64(3), 331-337.



- Adeyinka OS, Tabassum B, Riaz S, Toufiq N, Bhatti MU, Anicet B, Nasir IA (2020). Advances in exogenous RNAs delivery techniques for RNAi-Mediated Pest control. *Molecular Biology Reports*. 47, 6309–6319. <https://doi.org/10.1007/s11033-020-05666-2>
- Riaz S, Nasir IA, Bhatti MU, Adeyinka OS, Toufiq N, Yousaf I and Tabassum B* (2020). Resistance to *Chilo infuscatellus* (Lepidoptera: Pyraloidea) in transgenic lines of sugarcane expressing *Bacillus thuringiensis* derived Vip3A protein. *Molecular Biology Reports*. <https://doi.org/10.1007/s11033-020-05355-0>
- Bilal M, Nasir IA, Tabassum B, Akrem A, Ahmad A and Ali Q (2020). Cytotoxicity and in-vitro antiviral activity of lectin from *Crocus vernus* L. against potato virus Y. *Applied Ecology and Environmental Research*. 18(1): pp-pp. DOI: 10.15666/aeer/1801_13011315
- Bhatti MU, Riaz S, Toufiq N, Adeyinka OS, Khan A, Yousaf I, Tariq M, Murtaza S, Nasir IA and Tabassum B*(2020). The potential and efficacy of *Allium sativum* leaf lectin (ASAL) against sap-sucking insect pests of transgenic maize. *Biologia*. <https://doi.org/10.2478/s11756-020-00533-8>
- Sharif MN, Iqbal MS, Alam, R, Tabassum B, Awan MF, Ali Q and Nasir IA (2020). Knock down of molt regulating gene for development control of *Helicoverpa armigera*. *Genetics and Molecular Research* 19 (2): gmr16039978.
- Iqbal MS, Tabassum B, Awan MF, Tariq M, Ali Q and Nasir IA. 2020. Genetic variability of sugarcane genotypes for red rot disease. *Genetics and Molecular Research* 19 (1): gmr16039978.
- ALI, Q. ALI, M.S. IQBAL, I.A. NASIR, X. WANG. 2020. Salt tolerance of potato genetically engineered with the *Atriplex canescens* BADH gene. *Biologia plantarum* 64: 271-279, 2020 | DOI: 10.32615/bp.2019.080.
- Atta Rasool, Sadia Ata, Atif Islam, Muhammad Rizwan, Muhammad Khalid Azeem, Azra Mehmood, Rafi Ullah Khan, Hafiz Arshad Mahmood (2020). Kinetics and controlled release of lidocaine from novel carrageenan and alginate-based blend hydrogels. *International Journal of Biological Macromolecules*, 147: 67-78
- Ramla Ashfaq, Azra Mehmood, Amna Ramzan, Intzar Hussain, Moazzam Nazeer Tarar & Sheikh Riazuddin (2020). Antioxidant pretreatment enhances umbilical cord derived stem cells survival in response to thermal stress in vitro. *Regenerative Medicine*, 15(3): 1441-1453
- Mubashra Zehra, Waliya Zubairi, Anwarul Hasan, Hira Butt, Amna Ramzan, Maryam Azam, Azra Mehmood, Mojtaba Falahati, Aqif Anwar Chaudhry, Ihtesham Ur Rehman, Muhammad Yar (2020). Oxygen Generating Polymeric Nano Fibers That Stimulate Angiogenesis and Show Efficient Wound Healing in a Diabetic Wound Model. *International Journal of Nanomedicine*, 15: 3511-3522.



- Muhammad Ahsan Riaz, Zaib Un Nisa, Muhammad Sohail Anjum, Hira Butt, Azra Mehmood, Ayesha Riaz & Amtul Bari Tabinda Akhtar (2020). Assessment of metals induced histopathological and gene expression changes in different organs of non-diabetic and diabetic rats. *Scientific Reports*, 10: 5897.
- H Butt, A Mehmood, A Ejaz, S Humayun and S Riazuddin (2020). Epigallocatechin-3-gallate protects Wharton's jelly derived mesenchymal stem cells against in-vitro heat stress. *European journal of Pharmacology*; <https://doi.org/10.1016/j.ejphar.2020.172958>.
- Mariam Afzal, Nadeem Sheikh, Shazia Rafique et.al. (2020). Peripheral Expression of CXCL10 Gene in Chronic Hepatitis C Patients Treated with Sofosbuvir, Daclatasvir, and Ribavirin. *Journal of Interferon & Cytokine Research* 40(6). DOI: 10.1089/jir.2019.0185
- Sana usman, Maria Khawer, Shazia Rafique. The current status of anti GPCR drugs against different cancers (2020). *Journal of Pharmaceutical Analysis* DOI: 10.1016/j.jpha.2020.01.001
- Ahmed F, Ijaz B, Ahmad Z, Farooq N, Sarwar MB, Husnain T. (2020). Modification of miRNA Expression through plant extracts and compounds against breast cancer: Mechanism and translational significance. *Phytomedicine*. 68:153168.
- Koloko BL, Ijaz B, Wankeu-Nya M, Ngaha Njila MI, Kenmogne H, Nyonseu Nzeubang DC, Nzanguéu CB, Dimo T, Dongmo AB, Massoma Lembe D. (2020). In vivo effects of *Rauvolfia vomitoria* (Apocynaceae) ethanolic extract on sexual performance and reproductive activity in male rats. *Andrologia*. 52(1):e13414.
- Sarwar MB, Ahmad Z, Anicet BA, Sajid M, Rashid B, Hassan S, Ahmed M, Husnain T. (2020). Identification and Validation of Superior Housekeeping Gene(s) for qRT-PCR Data Normalization in *Agave sisalana* (a CAM-plant) under Abiotic Stresses. *Physiology and Molecular Biology of Plants*. 26(3): 567-584. DOI: 10.1007/s12298-020-00760-y
- Jamal A, Shahid MN, Aftab B, Johargy AK, Alshmemri MS, Rashid B, Husnain T. (2020). Isolation, characterization and expression analysis of putative drought responsive expressed sequenced tags from *Gossypium arboreum* roots. *Journal of Animal & Plant Sciences*, 30(3): 749-765. <https://doi.org/10.36899/JAPS.2020.3.0088>
- Hassan S, Qadir I, Aslam A, Rashid B, Sarwar MB, Husnain T. (2020). Cloning, genetic transformation and cellular localization of abiotic stress responsive universal stress protein gene (GUSP1) in *Gossypium hirsutum*. *Iranian Journal of Biotechnology*; 18(2): 37-46 DOI: 10.30498/IJB.2020.138051.2312
- Ahmad Z, Sadique S, Sarwar MB, Rashid B, Hassan S, Rasheed S, Bashir B, Seki M, Husnain T. (2020). Transcriptomic Analysis of Root Specific Drought Mediated Response of *G. arboreum* and *G. hirsutum*. *Biologia*; 75:627-636 <https://doi.org/10.2478/s11756-019-00382-0>
- Jabbar B., Batcho AA., Sarwar MB, Rashid B, Hassan B., Husnain T. . (2020). RNA-Seq Data Analysis Unveils Potential Conserved micro-RNAs in *Agave deserti*. *Current Proteomics*. <https://doi.org/10.2174/1570164617999200529122637>.



- Mizna, Sajid M., Hassan S., Rashid B., Husnain T. (2020). Embryogenic capabilities of cotton through tissue culture and and expression analysis of SERK3 for regeneration potential. *Indian Journal of Agricultural Research*, 54(3): 361-366; DOI: 10.18805/IJAre.A-515
- Noreen S, Ghumman SA, Batool F, Ijaz B, Basharat M, Noureen S, Kausar T, Iqbal S. (2020). Terminalia arjuna gum/alginate in situ gel system with prolonged retention time for ophthalmic drug delivery. *Int J Biol Macromol*.152:1056-1067. doi: 10.1016/j.ijbiomac.2019.10.193. PMID: 31751751
- Khan MSI, Khan A, Adeyinka OS, Yousaf I, Riaz S, Bashir B, Tariq M and Tabassum B. 2020. Molecular cloning and expression of recombinant *Trichoderma harzianum* chitinase in *Pichia pastoris*. *Adv. Life Sci*. 7(3): 122-128.
- Jahangir, G. Z., Shahwar, D., Sadiq, M., Nasir, I. A., Khalil, H. and Iqbal, M. (2020). Essential oil of spice plants prevents DNA damage. *TIJABR*: 2(3):25-32.
- Atia Bukhari, Naveed Ahmed, Fizza Khan, Muhammad Shafique, Asif Suleman Sahi (2020). Assessment of genetic diversity and genetic characterization of Nili Ravi buffalo breed utilizing microsatellite markers. *Adv. Life Sci*. 7(4): 277-280
- Sadia H,* Bhinder M A, Irshad A, Zahid B, Ahmed R, Ashiq S, Malik K, Riaz M, Nadeem T, Ashiq K, Akbar A (2020). Determination of expression profile of p53 gene in different grades of breast cancer tissues by real time PCR. *African Journal of Health Sciences* 20(3):1273-1282. DOI;<https://dx.doi.org/10.4314/ahs.v20i3.32>
- Rubab A, Shafique M, Javed F, Saleem S, Zahra F.T, McNevin, D and Shahid A.A. (2020). Population genetic portrait of Pakistani Lahore Christians based on 32 STR loci. *Nature-Scientific Reports*. 10:18960
- Khan SY, Ali M, Lee MW, Ma Z, Biswas P, Khan AA, Naeem MA, Riazuddin S, Riazuddin S, Ayyagari R, Hejtmancik JF, Riazuddin SA (2020). Whole genome sequencing data of multiple individuals of Pakistani descent. *Sci Data*. 13;7(1):350. <https://pubmed.ncbi.nlm.nih.gov/33051442/>
- Aslam R, Shahid M, Bano I, Ayoub M, Sabar MF, Altaf S, Kousar S, Ghani MU, Husnain T and Shahid AA. (2020). Major histocompatibility complex class II polymorphic variants are associated with asthma predisposition in the Punjabi population of Lahore, Pakistan. *Clin Respir J*. 00:1–8. <https://doi.org/10.1111/crj.13309>
- Shahid N, Samiullah T R, Shakoor S, Latif A, Yasmeen A, Azam S, and Rao A. Q. (2020). Early stage development of a Newcastle disease vaccine candidate in corn. *Frontiers in Veterinary Science*, 7
- Ahmed M, Iqbal A, Latif A, ud Din, S, Sarwar M B, Wang X.and Shahid, A A.(2020). Overexpression of a sucrose synthase gene indirectly improves cotton fiber quality through sucrose cleavage. *Frontiers in plant science*, 11



- Ali Q, Salisu I B, Shahid A A, Liaqat A and Rao A. Q. (2020). A 90– day subchronic toxicity study of transgenic cotton expressing Cry1Ac, Cry2A and CP4– EPSPS proteins in Sprague– Dawley rats. *Food and Chemical Toxicology* , 146, 111783.
- Bajwa K S, Azam Ali, M, Rao A Q, Shahid A A, and Husnain, T. (2020). Combination of Cry1Ac and Cry2A to Produce Resistance against *Helicoverpa armigera* in Cotton. *Journal of Agricultural Science and Technology*, 22(6), 1587-1601
- Iqbal A, Latif A, Galbraith D W, Jabbar B, Ali M A, Ahmed M and Husnain T. (2020). Structure-based prediction of protein–protein interactions between GhWlim5 Domain1 and GhACTIN-1 proteins: a practical evidence with improved fibre strength. *Journal of Plant Biochemistry and Biotechnology*, 1-14.
- Bilal M, Tabassum B, Ali Q and Nasir IA (2020). Down regulation of Potato Virus Y (PVY) Coat Protein (CP) expression by *Iberis gibraltarica* protein extract. *Cytology & Genetics*. 55(1),80–86
- Tona R, Lopez IA, Fenollar-Ferrer C, Faridi R, Anselmi C, Khan AA, Shahzad M, Morell RJ, Gu S, Hoa M, Dong L, Ishiyama A, Belyantseva IA, Riazuddin S and Friedman TB (2020). Mouse Models of Human Pathogenic Variants of TBC1D24 Associated with Non-Syndromic Deafness DFNB86 and DFNA65 and Syndromes Involving Deafness. *Genes (Basel)*. 11(10):1122. doi: 10.3390/genes11101122.
- Ghufraan H, Mehmood A, Azam M, Butt H, Ramzan A, Yousaf MA, Ejaz A, Tarar MN and Riazuddin S (2020). Curcumin preconditioned human adipose derived stem cells co-transplanted with platelet rich plasma improve wound healing in diabetic rats. *Life Sciences*. 257: 118091
- Zehra M, Mehmood A, Yar M, Shahzadi L and Riazuddin S (2020). Development of NSAID-loaded nano-composite scaffolds for skin tissue engineering applications *Journal of Biomedical Materials Research Part B: Applied Biomaterials*, PMID: 32619310
- Shahzadi L, Bashir M, Tehseen S, Zehra M, Mehmood A, Anwar A, Ihtesham ur Rehman C and Yar M (2020). Thyroxine impregnated chitosan-based dressings stimulate angiogenesis and support fast wounds healing in rats: Potential clinical candidates. *International Journal of Biological Macromolecules*. 160: 296-306.
- Ahmad MR, Badar W, Khan MAU, Mahmood A, Latif N, Iqbal T, Assir MZK, and Sleem MA. (2020). Combination of preconditioned adipose-derived mesenchymal stem cells and platelet-rich plasma improves the repair of osteoarthritis in rat. *Future Medicine* doi: 10.2217/rme-2020-0040.
- Fazal N, Khawaja H, Naseer N, Khan AJ and Latief N. (2020). *Daphne mucronata* enhances cell proliferation and protects human adipose stem cells against monosodium iodoacetate induced oxidative stress in vitro. *Adipocyte* 9(1):495-508. doi: 10.1080/21623945.2020.1812242.



- Rafique S, Zahid S, Ali A, Tariq M, Saeed M, Sahibzada KI, Shahid AA and Idrees M. (2020). Genome wide methylation profiling of HCV pathogenesis to develop diabetes and diabetic complications. *Journal of Viral Hepatitis* DOI:10.1111/jvh.13417
- Iqrar U, Javaid H, Ashraf N, Ahmad A, Latief N, Shahid AA, Ahmad W and Ijaz B. (2020). Structural and Functional Analysis of Pullulanase Type 1 (PuIA) from *Geobacillus thermopakistanensis*. *Mol Biotechnol.* 62(8):370-379.
- Khalid H, Landry KB, Ijaz B, Ashfaq UA, Ahmed M, Kanwal A, Froeyen M and Mirza MU (2020). Discovery of novel Hepatitis C virus inhibitor targeting multiple allosteric sites of NS5B polymerase. *Infect Genet Evol.* 84:104371
- Majid, MU, Sher Z, Rashid B, Ali Q, Sarwar MB, Hassan S and Husnain T. (2020). Role of leaf epicuticular wax load and composition against whitefly population and cotton leaf curl virus in different cotton varieties. *Cytology and Genetics* 54 (5): 472-486
- Salisu I.B, Shahid A.A, Yaqoob A, Gul A and Rao A.Q (2020). Evaluation of the Effect of subchronic feeding of transgenic cotton line (CKC-1) on the faecal microbiota of albino rabbits. *Journal of Animal Physiology and Animal Nutrition* 1–10. <https://doi.org/10.1111/jpn.13471>

Abstracts

- Kausar Malik*, Husnain QamarAli Tajawar (2019). Antimicrobial, Antifungal and phytochemical assessment of *Dracocephalum nuristanicum* for poster presentation in ASM Microbe 2019 on 20-24 June San Fransisco, California.
- Shahid A A (2019), Antimicrobial potential of *Bacillus pumilus* against tomato pathogen *Fusarium oxysporium*. International Conference on Food, Nutrition, and Agriculture (ICFNA-19) Sep 27-28, 2019, Istanbul (Turkey)
- Ayesha Latif, Mukhtar ahmed, Sidra Akhtar, Ammara Ahad, Adnan Iqbal, Amina Yaqoob, Ayesha Imran, Shahid A A, Idrees A Nasir, Abdul Qayyum Rao, Tayyab Husnain; ICPU, Recenet Innovations in Molecular Sciences, International Conference of Punjab University, Lahore, November 06-08, 2019
- Riaz M, Hassan S, Sajid M, Ahmad Z, Sarwar MB, Rashid B, Husnain T. (2019). Performance of oligonucleotide microarray for identification of candidate genes in root tissues of *Zea mays*. International Conference on Food, Nutrition, and Agriculture (ICFNA19) 27-28 September 2019, Istanbul, Turkey
- Mukhtar Ahmad, Ayesha Latif, Sidra Akhter, Ammara Ahad, Adnan Iqbal, Amina Yaqoob, Ayesha Imran, Mohammad Usman, Naila Shahid, Sira Azam, Aneela Yasmeen, Tahir Rehman Samiullah, Salahuddin, Ambreen Gul, Sana Shakoob, Maria Khawar, Sara Ajmal, M. Azam Ali, Samina Hassan, Mohsin Shad, Sahar Sadaqat, Maira Zahid, Ayesha Malik, Gulzeb Liaqat, Ahmad Ali Shahid, Idrees Ahmad Nasir, Abdul Qayyum Rao, Tayyab Husnain (2019). Exotic gene expression in Cotton for fiber quality improvements on 3rd Sino-Pak international conference on innovation in cotton breeding and biotechnology.



- Samia Afzal, Muhammad Idrees, Iram Amin, Muhammad Shahid “Mapping T and B cell epitopes in Dengue Virus E Protein to support the development of Dengue Vaccine design” presented at Advancements in Biotechnology and Biocomputing at Islamic International University Islamabad, (7-9 Feb, 2019).
- Haleema Sadia, Rozeena Sheikh, Asma Irshad, Rais Ahmad, Munir Ahmad Bhinder, Muhammad Awais, Kausar Malik, Muhammad Naeem, Beenish Zahid. Next Generation Sequencing analysis of Tp53 gene in breast cancer patients of Punjabi Population in 7th International Symposium-Cum-Training Course on Molecular Medicine & Drug Research (MMDR-7), held at Dr. Panjwani Center for Molecular Medicine & Drug Research (International Center for Chemical & Biological Sciences, University of Karachi), Karachi, Pakistan, Nov 4 - 7, 2019 (Oral presentation).
- Ahmad Qazi, Muhammad Ali, Rehana Iqbal, Farhat Jabeen, Kausar Malik, Muhammad Anwar Iqbal, Nazia Khalid Anthropogenic activities and ichthyofauna of River Satluj: a case of neglected River 2nd International conference on Applied Zoology held in GCU, Faisalabad, Pakistan on 19, 20-12-2019.
- Khalid, Kausar Malik, Ayesha Liaqat, Haleema Sadia and Tayyab Husnain 6th International Conference on Drug Development-Natural & Synthetic at Center for advanced Drug Research, Abbottabad on 29-30 November, 2019.
- Haleema Sadia, Imad ullah, Hameed ur Reman, Asma Irshad, Sana ashique, kanwal ashique, Tariq Nadeem, Shahid Raza, Kausar Malik. Preoperative anxiety level among patients undergoing elective general surgery in District Head Quarter Hospital (DHQ) Timergara National conference on entrepreneurship avenues in biological sciences (NCEB 2020) 8-9 January Dept of biology Lahore Garison University Pakistan.
- Haleema Sadia, Asma Irshad, Kausar Malik. Determination of deleterious missense mutations in Tp53 gene of breast cancer patients of Punjabi Population by Next Generation Sequencing. Recent Innovations in Molecular Sciences held on 6-8th Nov, 2019, organized by Punjab University, Lahore.
- Haleema Sadia, Naeem Gul, Hameed ur Reman, Asma Irshad, Sana ashique, kanwal ashique, Kausar Malik, Tariq Nadeem, Shahid Raza. Oral health & gingivitis prevalence in Urban & rural areas of Tehsil Takhat Bhai District Mardan, KPK. National conference on entrepreneurship avenues in biological sciences (NCEB 2020) 8-9 January Dept of biology LHR Garison Univ pak
- Haleema Sadia, Rozeena Sheikh, Asma Irshad, Rais Ahmad, Munir Ahmad Bhinder, Muhammad Awais, Kausar Malik, Muhammad Naeem Shahwani, Beenish Zahid (2019). Evaluation of real time PCR based assay for diagnosis of canine transmissible venereal tumours in Pakistan” 3rd National Conference on Emerging trends in Bioinformatics & Biosciences, organized by department of Bioinformatics Hazara University Mansehra, October 3-5.
- Hassan S, Ismail P, Abbas Z, Sarwar MB, Batool F, Rashid B, Husnain T. (2019). Role of Leucine rich repeat (LRR) gene in transgenic cotton under drought stress. Proc Intl conf Recent innovations in molecular sciences held at University of the Punjab Lahore, Nov 06-08, 2019. Pp69.



- Rashid B, Batcho, AA, Jabbar B, Sarwar MB, Hassan S, Sajid M, Husnain T. (2019). Heat shock protein gene: The future for heat stress tolerance in plant species. Proc Intl conf Recent innovations in molecular sciences held at University of the Punjab Lahore, Nov 06-08, 2019. Pp93.
- Batcho, AA, Sarwar MB, Jabbar B, Rashid B, Hassan S, Husnain T. (2019). Heat shock protein gene family in Agave sisalana: Identification and analysis of cDNA coding HSP70 in cotton under heat stress. Proc Intl conf Recent innovations in molecular sciences held at University of the Punjab Lahore, Nov 06-08, 2019. Pp94.
- Sajid M, Bilal MS, Ahmad Z, Hassan S, Rashid B, Husnain T. (2019). Gene expression analysis reveals complex regulation of hormones and energy metabolism under osmotic and cold stress in root tissue of maize. Poster presentation Proc Intl conf Recent innovations in molecular sciences held at University of the Punjab Lahore, Nov 06-08, 2019. Pp132.

○ **Publications: Books/Edited**

Sr	Authors	Title	Year	Publisher
1	Tabassum B, Samuel AO, Bhatti MU, Fatima N, Shahid N, Nasir IA	Bottlenecks in Commercialization and Future Prospects of Beneficial Halotolerant Microorganisms for Saline Soils.	2019	Kumar M., Etesami H., Kumar V. (eds) Saline Soil-based Agriculture by Halotolerant Microorganisms. Springer, Singapore https://doi.org/10.1007/978-981-13-8335-9_9 Springer
2	Shahid AA, Ali M, Asif M. and Haider MS	Mushrooms of Pakistan, 2nd Edition. ISBN 978-699-7746-01-9	2019	University of the Punjab
3	Ijaz B, Ashfaq A U, Anwaar A, Zeeshan Z, Anjum H and Husnain T	Book Chapter : Current progress in HCC using CRISPR: the latest gene editing tool, In the book title 'The CRISPR/Cas9 System: Applications and Technology	2020	Editor: Alfred A. Bertelsen ISBN: 978-1-53616-426-8 Life Sciences, Nova Publishers https://novapublishers.com
4	Syed Sarfraz Hussai, Abdul Qayyum Rao, Muhammad Irfan, Bu-Jun Shi	MicroRNA-mediated regularity functions under salinity stress in plants Pages: 415-434	2020	Published by Elsevier https://doi.org/10.1016/B978-0-12-817112-7.00019-5



○ **Conferences, Seminars and Workshops etc.**

Centre of Excellence in Molecular Biology (CEMB), University of the Punjab, Lahore has organized the following Conferences/ Seminars and Refreshers Courses at its premises.

Organized

- Organizer of First International Conference on "Recent Innovations in Molecular Sciences", University of the Punjab during November 6-8, 2019.
- Organized one-day workshop on 'Moving towards Success: Strategic Time Management' held on October 18, 2019.
- Organized Symposium on 'Brain, Neurogenetics and Regenerative Medicine' held on October 03, 2019.
- Organized 'International Symposium on Stem Cells and Regenerative Medicine' held on November 15, 2019
- Organized Mini-Symposium on "Drug Development From Medicinal Plants held on December 06, 2019.
- Organized one day Symposium on Mushrooms of Pakistan (2nd Edition) held on March 05, 2020.
- Organized One day symposium Entitled "Development of CKC Technology" organized by CEMB On December 15, 2020.

Attended/ Participation

- Dr. Ahmad Ali Shahid Participated as oral presenter in "International Conference on Food, Nutrition, and Agriculture" (ICFNA-19), September 27-28, 2019, Istanbul (Turkey).
- Dr. Ahmad Ali Shahid Participated in "National Dialogue on Ag Biotechnology for food security and Capacity Building of Biosafety Regulators", December 11-12, 2019, Comstech Islamabad.
- Dr. Ahmad Ali Shahid Participated as organizer in Recent Innovations in Molecular Sciences, International Conference of Punjab University (ICPU 2019), Lahore, November 06-08, 2019.
- Dr. Ahmad Ali Shahid Participated in International Symposium on "Stem Cells and Regenerative Medicine" at Centre of Excellence in Molecular Biology, University of the Punjab, Lahore, Pakistan, November 15, 2019.
- Dr. Ahmad Ali Shahid Participated in "Scientific Symposium on brain Neurogenetics and Regenerative Medicine" October 3, 2019, Centre of Excellence in Molecular Biology, University of the Punjab, Lahore, Pakistan.
- Dr. Ahmad Ali Shahid Participated in Symposium "Brain, Neurogenetics and Regenerative Medicine" Centre of Excellence in Molecular Biology, University of the Punjab, Lahore, Pakistan, October 03, 2019.
- Dr. Kausar Malik attended and received certificate as Co-chairperson in first session; (Keynote speakers & Chairperson in session; Fisheries, Wildlife, Poultry, Nutrition & Nanotechnology) in 2nd International conference on Applied Zoology held in GCU, Faisalabad, Pakistan on 19, 20-12-2019



- Dr. Idrees Ahmad Nasir contributed as resource person in the training course on “Application of Advanced Technology for the Enhancement of Cotton Productivity in Mazambique” through zoom meeting held on April 27th – May 1st, 2020.
- Dr. Idrees Ahmad Nasir contributed as a resource person in the GM cotton hybrid production planning of the CEMB collaborating Sudanese seed company M/s Aleenah Agriculture Services held in Dubai from January 31st – February 1st, 2020.
- Dr. Idrees Ahmad Nasir contributed as a resource person in the training course on “Myth of GM Technology to combat pest losses of cotton in Uganda” sponsored by SESRIC (OIC-CTP) held on December 7th to 9th, 2019, Kampala, Uganda.
- Dr. Tayyab Husnain Attended a three day 3rd Sino-Pak International Conference on “Innovations in Cotton Breeding & Biotechnology” held at Changji, China on September 4-6, 2019.
- Dr. Tayyab Husnain Attended a three-day Meeting of the ICAC-Asian Cotton Research and Development Network (ACRDN) “Best Global Sustainable Practices on Production, Processing & By-Products Value Addition” held at Tashkent, Uzbekistan on September 9-11, 2019.
- Dr. Tayyab Husnain Organizer and attended an International Conference Punjab University (ICPU 2019) “Recent Innovations in Molecular Sciences” held at University of the Punjab, Lahore on November 06-08, 2019.
- Dr. Tayyab Husnain Certificate of Participation Awarded for Oral Presentation in “The 3rd Sino-Pak International Conference on Innovations in Cotton Breeding & Biotechnology” held at Changji, China on September 4-6, 2019.
- Dr. Tayyab Husnain attended two-day meeting as Subject Expert “Selection Board for the post of Assistant Professor (TTS)/Senior Research Officer (BS-18) Selection held on the May14-15, 2019 in the Committee Room, Vice Chancellor’s office University of the Punjab, Lahore.
- Dr. Tayyab Husnain attended a meeting held on May 17, 2019, in Al-Raazi Hall, Centre for Undergraduate Studies, University of the Punjab, Lahore.
- Dr. Tayyab Husnain attended one day meeting as a member of Accrediation Committee consituated by Punjab Higher Education Commission Sub-Campus of University of Central Punjab, Lahore held at May 21, 2019.
- Dr. Tayyab Husnain attended one day meeting to discuss NRPU projects with Director General Academic, Higher Education Commission, held on July 09, 2019 in Islamabad.
- Dr. Tayyab Husnain attended a 26th Meeting of Technical Advisory Committee (TAC), held on September 17, 2019 at 10:30 hours in the Committee Room of Pak-EPA, Islamabad.
- Dr. Tayyab Husnain Attended one day meeting on “National Core Group on Biotechnology” held on November 12, 2019 at NIBGE, Faisalabad.



- Dr. Tayyab Husnain attended one day meeting with “Directors, Centres of Excellence, Area Study Centres, Pakistan Study Centres and Institutes of Clinical Psychology” held at Lecture hall, HEC, Islamabad. on November 14, 2019
- Dr. Tayyab Husnain attended an Event of “Roadshow on New R&D Framework of HEC” held at Al-Raazi Hall, Centre for Undergraduate Studies, University of the Punjab, Lahore on 23rd November.
- Dr. Tayyab Husnain attended a National Dialogue on “Ag Biotech for Food Security and Capacity Building of Biosafety Regulators” held at COMSTECH, Islamabad, on December 11-12, 2019.
- Dr Abdul Qayyum Rao Recent innovation in molecular Sciences (ICPU) 6-8 November 2019, University of the Punjab Lahore.
- Dr. Bushra Ijaz invited for Oral presenter at 6th International Conference on Drug development -Natural & synthetic Organized by COMSATS University Abbottabad Campus on 29th-3rd November 2019
- Dr. Bushra Ijaz attended one day workshop on ‘Moving towards Success: Strategic Time Management’ held on October 18, 2019 at CEMB.
- Dr. Bushra Ijaz participated Symposium on ‘Brain, Neurogenetics and Regenerative Medicine’ held on October 03, 2019 at CEMB
- Dr. Bushra Ijaz participated in ‘International Symposium on Stem Cells and Regenerative Medicine’ held on November 15, 2019 at CEMB
- Dr. Bushra Ijaz attended and poster presentation on International Conference on "Recent Innovations in Molecular Sciences" organized by the University of the Punjab during November 6-8, 2019.
- Dr. Abdul Qayyum Rao attended Recent innovation in molecular Sciences (ICPU) 6-8 November 2019, University of the Punjab Lahore.
- Aneela Yasmeen, Naila Shahid, Saira Azam, Dr. Abdul Qayyum Rao, Sana Shakoor, Sara Ajmal attended One day Virtual symposium entitled “Make your Research Life Easier with MENDELEY” organized by PASTIC held on September 9, 2020.
- Dr. Abdul Qayyum Rao attended One day online Mini Symposium entitled “Food Structure & Functionality” held on Tuesday October 20, 2020 organized by Researcher Academy on Campus.
- Dr. Abdul Qayyum Rao invited as a Keynote speaker and Dr. Naila Shahid, Saira Azam, Dr. Fatima Batool, Aneela Yasmin and 6 student attended one day Symposium Entitled” CRISPR /Cas Mediated Genome Editing of Plants” by UVAS held on November 3, 2020.
- Dr. Ahmad Ali Shahid, Dr. Idrees Ahmad Nasir, Dr. Abdul Qayyum Rao, Dr. Bushra Rashid Dr. Naila Shahid, Dr. Fatima Batool all plant group employees attended , One day symposium Entitled “Development of CKC Technology” organized by CEMB On December 15, 2020.



- Certificate of Appreciation and Participation is awarded to Dr. Asma Ali Khan in Scientific Symposium on “Brain, Neurogenetics and regenerative Medicine” on October 03, 2019 held at Centre of Excellence in Molecular Biology (CEMB), University of the Punjab Lahore.
 - Certificate of Participation is awarded to Dr. Asma Ali Khan at the International Conference “Recent Innovations in Molecular Sciences” on November 6-8, 2019 organized by University of the Punjab Lahore-Pakistan.
 - Certificate of Appreciation is awarded to Dr. Asif Naeem for participation in Scientific Symposium on “Brain, Neurogenetics and regenerative Medicine” on October 03, 2019 held at Centre of Excellence in Molecular Biology (CEMB), University of the Punjab Lahore.
 - Certificate of Appreciation is presented to Dr. Asif Naeem as participant at the International Conference “Recent Innovations in Molecular Sciences” on November 6-8, 2019 organized by University of the Punjab Lahore-Pakistan.
 - Dr. Mariam Shahid was awarded certificate on online course on Intellectual Property for Scientists held on September 9, 2020 by COMSTECH Secretariate Islamabad
 - Dr. Mariam Shahid participated in International conference Recent Innovations in Molecular Sciences held on November 6-8, 2019 by University of the Punjab Lahore.
 - Dr. Mariam Shahid participated in Seminar on Genomic Applications of PCR, qPCR and NGS held on 12th December, 2019 by Thermofisher Scientific at PC, Lahore.
 - Dr. Bushra Rashid attended one week “Workshop on the formulation and study of spatial development, climate change and the environment for agricultural transformation” organized by Asian Productivity Organization Japan and The Development Academy of Philippines held in Manila, Philippines, 18-22 November, 2019.
 - Dr. Bushra Rashid participation in “National dialogue on Ag-Biotech for Food Security and Capacity Building of Food Safety Regulators”, organized by Pakistan Biotechnology Information Centre (PABIC) Lahore Chapter and Forman Christian College University Lahore, held at COMSTECH Islamabad December 11-12, 2019.
 - Dr. Bushra Rashid participated in Symposium, “Brain, neurogenetics and regenerative medicine”, held at CEMB, Oct. 03, 2019
 - Dr. Bushra Rashid attended One day Workshop on “Moving towards success: Strategic Time Management”, held at CEMB October 18, 2019.
- **Research journals**
Advancements in Life Sciences (ISSN 2310-5380) publishing since 25th November 2013.

RESEARCH COLLABORATION

○ Indigenous

Student Exchange and Research Projects: Centre has strong linkages with different learning institutions. Many students are doing their internship with a background of life science. The institutions are as under,

- Lahore College for Women University
- Kinnaird College for Women Lahore



- University of Veterinary and Animal Science, Lahore
 - Allama Iqbal Medical College (AIMC)/Jinnah Hospital, Lahore
 - Bahuddin Zakria University, Multan
 - Shaheed Zulfiqar Ali Bhutto Medical University, PIMS Islamabad,
 - Benevolent Trust Free Eye Hospital (LRBT), Lahore.
 - Institute of Agricultural Sciences (IAGS), University of the Punjab, Lahore.
 - Arid Agriculture University, Rawalpindi
 - University of Agriculture, Faisalabad
 - University of Lahore, Thokar Niaz Baig, Lahore
 - Government College University, Lahore
 - Govt. College University, Faisalabad
 - COMSAT Sahiwal Campus
 - Institute of Biochemistry & Biotechnology IBB, UVAS, Lahore.
 - Govt College Home Economics, Lahore.
 - FC College University, Lahore.
 - College of Earth and Environmental Science (CEES) University of Punjab
 - Avicenna Medical College/Hospital, Lahore.
 - Muhammad Ali Jinnah University, Islamabad
 - The Islamia University, Bahawalpur.
 - National Institute for Biotechnology and Genetic Engineering (NIBGE), Faisalabad
 - Abdul Wali Khan University Mardan.
 - International Center for Chemical and Biological Sciences, University of Karachi
- **Foreign Linkages**
- Wilmer Ophthalmology Institute, The Johns Hopkins University, School of Medicine Baltimore, MD. USA.
 - National Institute of Health, Rockville, USA
 - Laboratory of Molecular Genetics, Department of Otorhinolaryngology Head & Neck Surgery, University of Maryland, School of Medicine, Baltimore, USA.
 - University of Miami Miller School of Medicine, RMSB 1129, 1600 NW 10th Avenue, Miami, FL 33136, USA.
 - Agricultural Research Service, USDA, Baltimore Ave, Beltsville, MD USA
 - LifeSensors Inc. 271 Great Valley Parkway, Suite 100, Malvern, PA 19355 USA.
 - Department of Human Genetics, Radboud University Nijmegen Medical, Netherland
 - Korean Bioinformatics Centre, South Korea
 - Personal Genomics Institute, South Korea
 - Genome Research Foundation, South Korea
 - Whitehead Institute for Biomedical Research, Five Cambridge Centre, Cambridge, MA 02142. USA.



- National Institute on Deafness and Other Communication Disorders (NIDCD), part of the National Institutes of Health (NIH), USA
- University of Maryland, Bethesda, Maryland, USA

○ **Funding Grants for R&D**

Sr.	Project	Sponsoring Agency	Funding Million Rs.
1	Transforming CEMB PARB-Biotech Maize Prototype into viable commercial product for sustainable maize production	HEC	14 .0
2	Control of Cotton Insects through modified combination of BT and plant Lectin Genes	HEC	2.44
3	Development of a Single Chimeric Dengue Virus DNA Vaccine and Study of its Immunogenicity and Response Against Local Dengue Serotypes	HEC	7.561
4	Cloning and Expression of Mosquito Larvicidal Genes in Green Algae (<i>Chlamydomonas</i> sp.)	HEC	2.684
5	Investigation of Hepatoprotective Role of Flavonoids and Saponins Mediated Pathways in Liver Fibrosis and Cirrhosis	HEC	4.206
6	Development of Human Recombinant Interleukin-11 (Opelvekin biosimilar)	HEC	5.346
7	Transformation of Sucrose Isomerase Genes in Sugarcane for Boosted Sugar Recovery	HEC	3.902
8	TDF project "Cell replacements for repair of damaged organs"	HEC	13.02
9	Genetic Improvement of Maize Lines for Insect Resistance and Glufosinate Herbicide Tolerance.	PARB	10 Million
10	Genetic improvement of potato against cold induced sweetening through integration of anti-sweetening gene (s).	HEC	08.208 Million
11	Investigation of potential double-stranded Ribonucleic acid (dsRNA) as alternative (<i>Chilo partellus</i>) in the developing countries.	IFS	11905\$ US
12	Localization of dsRNAs against aphids through chloroplast transformation in Potato	IFS	10700\$ US

DEPARTMENT OF BOTANY

○ **Research and Development**

Research and development are an integral part of curricula of all our academic programs. About 80 to 90 percent students of academic programs opt the research & report writing. Research and report writing for M.Sc., MS, M. Phil, and Ph. D scholars is mandatory. Software as well as hardware relating to research and development are available. Research supervisor is assigned to every student for research work. One hundred fifty-five (155) Research theses were completed and added to library during this year by the BS, M.Sc. MS and M. Phil students.



○ **Projects: Completed**

Sr. No.	Researchers	Duration	Financial Support (Rs.)	Sponsoring Agency
1.	Dr. Firdaus-e-Bareen Professor / Chairperson	2019-2020	250000	University of the Punjab, Lahore
2.	Dr. Muhammad Saleem Professor	2019-2020	250000	University of the Punjab, Lahore
3.	Dr. Faheem Aftab Professor	2019-2020	250000	University of the Punjab, Lahore
4.	Dr. Abdul Nasir Khalid Professor	2019-2020	250000	University of the Punjab, Lahore
5.	Dr. Shakil Ahmed Associate Professor (TTS)	2019-2020	200000	University of the Punjab, Lahore
6.	Dr. Humera Afrasiab Assistant Professor (TTS)	2019-2020	150000	University of the Punjab, Lahore
7.	Dr. Farhat Rass Masood Assistant Professor (TTS)	2019-2020	150000	University of the Punjab, Lahore
8.	Dr. Ambreen Ahmed Assistant Professor	2019-2020	150000	University of the Punjab, Lahore
9.	Dr. Asma Zulfiqar Assistant Professor	2019-2020	150000	University of the Punjab, Lahore
10.	Dr. Atif Kamran Assistant Professor (TTS)	2019-2020	150000	University of the Punjab, Lahore
11.	Dr. Abdul Rehman Khan Niazi Assistant Professor (TTS)	2019-2020	150000	University of the Punjab, Lahore
12.	Dr. Aisha Nazir Assistant Professor (Contract)	2019-2020	150000	University of the Punjab, Lahore

○ **Conferences, Seminars and Workshops, etc.** (Sponsors, Oral Presentation+Poster Presentation)

Prof. Dr. Firdaus-e-Bareen

International Conferences Organized / Sessions Chaired

- As Co-Patron, organized International Conference Punjab University (ICPU 2019) titled “Recent Innovations in Molecular Science”, on November 06-08, 2019 at University of the Punjab, Lahore.
- Chaired Session Technical Session III (02:30 pm – 04:00 pm) Theme: Smart Agricultural Development at Iqra Auditorium Lahore College for Women University (LCWU), Lahore during International Conference on Smart Plantation “An Ultimate Solution to Climate Change” (ICSP 2020), 02-04 March 2020, at LCWU Lahore Pakistan.

Keynote Talk delivered in International Conference

- Firdaus-e-Bareen. (2020). Keynote Address 1: “Smart Plantation” An ultimate solution to climate change in Technical Session III (02:30 pm – 04:00 pm) Theme: Smart Agricultural Development Venue: Iqra Auditorium Lahore College for Women University, Lahore during International Conference on Smart Plantation - “An Ultimate Solution to Climate Change” (ICSP 2020) ,02-04 March 2020 at LCWU Lahore Pakistan.



As Author/Co-Author Papers presented in International Workshops, Conferences, Seminars, Symposia and Webinars

- Shafiq, M., Firdaus-e-Bareen, Nazir, A., Mubeen, R., Zubair, F., Batool, S., Lodhi, S. K. and Khan, F. (2019). Managing on and off field Biomass of *Parthenium hysterophorus*: brain waving future configuration of UAV with UGV. Technical Presentation in Technical Workshop on Remote Sensing of *Parthenium* in Pakistan organized by Centre for Agriculture and Bioscience International (CABI) UK, Pakistan Office at Ramada Islamabad on Oct 09-10, 2019.
- Younas, H., Nazir, A. and Firdaus-e-Bareen. (2020). Metal immobilization and uptake potential of tannery solid waste derived biochar and its effect on the growth of *Helianthus annuus* L. (ICSP-O-51). Oral Presentation in International Conference on Smart Plantation - "An Ultimate Solution to Climate Change" (ICSP 2020), 02-04 March 2020, at LCWU, Lahore, Pakistan.
- Shafiq, M. and Firdaus-e-Bareen. (2020). Role of composting in "Smart Plantation" (ICSP-O-45). Oral presentation in International Conference on Smart Plantation - "An Ultimate Solution to Climate Change" (ICSP 2020), 02-04 March 2020, at LCWU, Lahore, Pakistan.
- Zubari, F., Mubeen, R., d Shafiq, M. and Firdaus-e-Bareen. (2020). Assessment of spatio-temporal variation in the occurrence of *Parthenium hysterophorus* L. in Botanical Garden of University of the Punjab Lahore (ICSP-O-47). Oral Presentation in International Conference on Smart Plantation - "An Ultimate Solution to Climate Change" (ICSP 2020), 02-04 March 2020, at LCWU, Lahore, Pakistan.
- Rafia Mubeen, Fatima Zubair, Muhammad Shafiq and Firdaus-e-Bareen. (2020). Effect of mulching on seed bank of *Parthenium hysterophorus* L. (ICSP-O-48). Oral Presentation in International Conference on Smart Plantation - "An Ultimate Solution to Climate Change" (ICSP 2020), 02-04 March 2020, at LCWU, Lahore, Pakistan.
- Batool, S., Shafiq, M. and Firdaus-e-Bareen. (2020). Suppressing *Parthenium hysterophorus* L. invasion through root allelochemy of co-cultivated plants (ICSP-O-49). Oral Presentation in International Conference on Smart Plantation - "An Ultimate Solution to Climate Change" (ICSP 2020) 02-04 March 2020, at LCWU, Lahore, Pakistan.

Workshops, Conferences, Seminars, Symposia and Webinars Attended

- Attended Technical Workshop on Remote Sensing of *Parthenium* in Pakistan organized by Centre for Agriculture and Bioscience International (CABI) UK, Pakistan Office at Ramada Islamabad on Oct 09-10, 2019.
- Attended International Conference on Smart Plantation - "An Ultimate Solution to Climate Change" (ICSP 2020), 02-04 March 2020, at LCWU, Lahore, Pakistan.

Dr. Najam ul Sehar Afshan

- First International Symposium on "Current Trends and Future Perspectives in Botanical Research" organized by Department of Botany, University of Okara, Okara, on 10th November 2020.



- International conference on “Smart Plantation: An ultimate solution to climate change” organized by Department of Botany, Lahore College for Women University (LCWU), from 02-04 March 2020.
- “First report of *Erysiphe aquilegiae* on *Clematis montana* from Pakistan” in The Mycological Society of America's First Virtual Meeting (MSA 2020): Mycology from the Cloud, from 21-22 July 2020.
- “Status of genus *Helvella* (Pezizomycetes, Ascomycota) in Pakistan” in The Mycological Society of America's First Virtual Meeting (MSA 2020): Mycology from the Cloud, from 21-22 July 2020.
- “First report of *Podosphaera pannosa* on *Rosa* species from Pakistan” in International Horticulture Conference (IHC-2020) from 26-28 February 2020, at the Institute of Agricultural Sciences (IAGS), University of the Punjab, Lahore.
- “Isolation and characterization of *Cercospora calotropidis* from the leaves of *Calotropis procera*” in International Horticulture conference (IHC-2020) from 26-28 February 2020 at Institute of Agricultural Sciences (IAGS), University of the Punjab, Lahore.
- “*Alternaria burnsii*, the causal agent of leaf blight on *Taraxacum officinale*” in International Conference of Punjab University (ICPU 2019) Recent Innovations in Molecular Sciences, from November 06-08, 2019. Abstract No. P-289, Published, P. 265-266.
- “First report of *Erysiphe urticae* on *Urtica dioica* (stinging nettle) from Pakistan” in International Conference of Punjab University (ICPU 2019), Recent Innovations in Molecular Sciences, from November 06-08, 2019. Abstract No. P-293, Published, P. 268.

Dr. Abdul Rehman Khan Niazi

- First International Symposium on “Current Trends and Future Perspectives in Botanical Research” organized by Department of Botany, University of Okara, Okara, on 10th November 2020.
- International conference on “Smart Plantation: An ultimate solution to climate change” organized by Department of Botany, Lahore College for Women University (LCWU), from 02-04, March 2020.

Dr. Ambreen Ahmed

- Three-day conference on “Nanomaterials: New Trends in Development and Applications” to be held on 29th - 31st January, 2019 at the Forman Christian College (A Chartered University), Lahore, Pakistan. Oral presentation
- FC College Conference entitled “Microbes for sustainable agriculture” on 25-28th March, 2019 at FC College University. Poster Presentation
- Family Con Conference 28- 30th Mar, 2019 at Pearl Continental Hotel. Poster Presentation
- Invention to Innovation 2-3th April 2019 at UGC, PU Poster Presentation
- ICPU (life sciences), Recent innovation in Molecular Biology 6-8th Nov, 2019 organized by Faculty of life sciences (IBB) at PU. Oral Presentation; Poster Presentation



- ICSSP (International Conference on Solid State Physics 8th- 12th Dec 2019) at PU. (Invited Talk)
- Seminar on “How to choose right career by Syed Ahmed Sajjad, CEO Australian Concept at Career Counseling and Placement Centre, IER, PU (20th January, 2020)
- Seminar on Women Entrepreneurship & Empowerment by Mrs. Muzeyyen Monder, Business Lady, Perth Security Service (PSS) at Australia at Career Counseling and Placement Centre, IER, PU (20th January, 2020)
- “Training Workshop on Scopus” on 20th Feb, 2019 at Main library auditorium, PU Lahore
- Workshop on “IEEE Xplore, Digital Library Workshop” on 20th Feb, 2019 at Main library, PU
- Workshop on Next Generation Sequencing 27-28th Mar, 2019, COMSATS, Islamabad
- Workshop on how to approach and manage funded research projects by ORIC, PU, 18th June 2019 at UGC
- Workshop on QS ranking on 28th Aug, 2019 at Al Razi Hall, UGC, PU by Dr. Ashwin Fernandus, QS ranking official
- Workshop on Computational tools at Department of chemistry, University of Sargodha, 18th Dec, 2019
- Seminar on HEC-NRPU projects on 19th Dec, 2019 at Chemical Engineering, PU organized by ORIC, PU
- One day Seminar on “Post doctorate and Senior Research fellowship opportunities in Germany” by Prof. Dr. Samina Mehnaz, Chairperson, FCC, on 23rd Jan, 2019 at UGC, PU organized by Department of Botany, PU (Participation as Member, Event Organizing Committee)
- Seminar by Dr. Aziz Methani LUMS on “Identification of differential gene expression during different stages of mango fruit ripening using RNA- Seq Data” on 19th Mar 2019 organized by Department of Botany, PU. (Participation as Member, Event Organizing Committee)
- Seminar entitled “Integrated Approaches for Wheat Breeding to Mitigate Production Risk” by Dr. Harpinder Singh, Canada on 26th Mar. 2019 organized by Department of Botany, PU (Participation as Member, Event Organizing Committee)
- Seminar on “Uswa-e-Husna” by Dr. Hammad Lakhvi, Dean, Faculty of Islamiyat, PU (10th Dec, 2019) organized by Faculty of Life Sciences, PU (Participation as Host and Member, Organizing Committee)
- Seminar on “Iqbal ka paigham , Noujawanon key Naam” by Aslam Kamal (Musawer-e-Iqbal) on 17th Dec, 2019 organized by Faculty of Life Sciences, PU in collaboration with Iqbal Studies Chair, Oriental College, PU (Participation as Host and Member, Organizing Committee)

Dr. Aisha Nazir

- Shafiq, M. Bareen, F., Nazir, A., Mubeen, R., Zubair, F., Batool, S. Lodhi, S. K. and Khan, F. (2019). Managing on and off field Biomass of Parthenium hysterophorus: brain waving future configuration of UAV with UGV. Presented In: Technical Workshop on Remote sensing of Parthenium in Pakistan organized by Centre for Agriculture and Bioscience International (CABI) UK, Islamabad Office on Oct 09 – 10, 2019 at Ramada, Islamabad.



- Younas, H., Nazir, A., and F. Bareen. (2020). Metal immobilization and uptake potential of tannery solid waste derived biochar and its effect on the growth of *Helianthus annuus* L. Presented In: International Conference on Smart Plantation - “An Ultimate Solution to Climate Change” (ICSP 2020) held on 02-04 March 2020, at Dept. of Botany, Lahore College for Women University (LCWU), Lahore.
- Nazir, A. (2020). Variation in the rhizospheric microbial community of co-cultivated plants irrigated with different type of wastewater. Presented In: International Conference on Smart Plantation - “An Ultimate Solution to Climate Change” (ICSP 2020) held on 02-04 March 2020, at Dept. of Botany, Lahore College for Women University (LCWU), Lahore.
- Nazir, A. Attended Presentation on “QS University Ranking” by Mr. Ashwin Jerome Fernanddes, Director QS University Ranking Services, held at Al-Raazi Hall, Centre for Undergraduate Studies, University of the Punjab Lahore on August 28, 2019.
- Nazir, A. Attended Technical Workshop on Remote sensing of *Parthenium* in Pakistan organized by Centre for Agriculture and Bioscience International (CABI) UK, Islamabad Office on Oct 09 – 10, 2019 at Ramada Islamabad.
- Nazir, A. Attended International Conference Punjab University (ICPU 2019) Recent Innovations In Molecular Sciences held on November 06-08, 2019.
- Nazir, A. Attended International Conference on Smart Plantation - “An Ultimate Solution to Climate Change” (ICSP 2020) held on 02-04 March 2020, at Dept. of Botany, Lahore College for Women University (LCWU), Lahore.

Dr. Muhammad Shafiq

- Shafiq, M., Bareen, F., Nazir, A., Mubeen, R., Zubair, F., Batool, S., Lodhi, S. K. and Khan, F. (2019). Managing on and off field Biomass of *Parthenium hysterophorus*: brain waving future configuration of UAV with UGV. Presented In: Technical Workshop on Remote sensing of *Parthenium* in Pakistan organized by Centre for Agriculture and Bioscience International (CABI) UK, Islamabad Office on Oct 09 – 10, 2019 at Ramada, Islamabad.
- Shafiq, M. (2019). Sustainable Ecosystem Services of Managing Biomass of Invasive Plants through Biochar (OP-38). Presented In: International Conference Punjab University (ICPU 2019), Recent Innovations in Molecular Sciences, held on November 06-08, 2019.
- Shafiq, M. and Bareen, F. (2020). Role of composting in “Smart Plantation” (ICSP-O-45). Presented In: International Conference on Smart Plantation - “An Ultimate Solution to Climate Change” (ICSP 2020) held on 02-04 March 2020, at Dept. of Botany, Lahore College for Women University (LCWU), Lahore.
- Zubair, F., Mubeen, R., Shafiq, M. and Bareen, F. (2020). Assessment of spatio-temporal variation in the occurrence of *Parthenium hysterophorus* L. (ICSP-O-47). in Botanical Garden of University of the Punjab Lahore. Presented In: International Conference on Smart Plantation - “An Ultimate Solution to Climate Change” (ICSP 2020) held on 02-04 March 2020, at Dept. of Botany, Lahore College for Women University (LCWU), Lahore.



- Mubeen, R., Zubair, F. Shafiq, M. and Bareen, F. (2020). Effect of mulching on seed bank of *Parthenium hysterophorus* L. (ICSP-O- 48). Presented In: International Conference on Smart Plantation - “An Ultimate Solution to Climate Change” (ICSP 2020) held on 02-04 March 2020, at Dept. of Botany, Lahore College for Women University (LCWU), Lahore.
- Batool, S., Shafiq, M. and Bareen, F. (2020). Suppressing *Parthenium hysterophorus* L. invasion through root allelochemy of co-cultivated plants (ICSP-O-49). Presented In: International Conference on Smart Plantation - “An Ultimate Solution to Climate Change” (ICSP 2020) held on 02-04 March,2020, at Dept. of Botany, Lahore College for Women University (LCWU), Lahore.
- Attended Technical Workshop on “How to Procure?” organized in Department of Economics, University of the Punjab Lahore on August 07, 2019.
- Attended Presentation on “QS University Ranking” by Mr. Ashwin Jerome Fernanddes, Director QS University Ranking Services, held at Al-Raazi Hall, Centre for Undergraduate Studies, University of the Punjab Lahore on August 28, 2019.
- Attended Technical Workshop on Remote sensing of *Parthenium* in Pakistan organized by Centre for Agriculture and Bioscience International (CABI) UK, Islamabad Office on Oct 09 – 10, 2019 at Ramada Islamabad.
- Attended International Conference Punjab University (ICPU 2019), Recent Innovations in Molecular Sciences, held on November 06-08, 2019.
- Attended International Conference on Smart Plantation - “An Ultimate Solution to Climate Change” (ICSP 2020) held on 02-04 March 2020, at Dept. of Botany, Lahore College for Women University (LCWU), Lahore.

Dr. Zahoor Ahmad Sajid

- Attended New trends in Natural Sciences, Emerging Infectious Diseases, Communicable Diseases Insight, Zoonoses and Strategies, held at LCW University Lahore, 21-22 Dec 2020.
- Attended 1st International Symposium on Current Trends and Future Perspectives in Botanical Research, 2020. Nov.10, 2020 (Online webinar).
- Attended 7th International Horticulture Research Conference, held at Department of Horticulture, Beijing, Shanghai. July 07-August 07-2020. (Online webinar).
- Research Journals: (Oct-2019-Sep-2020) (Author’s name, Article name, Journal with date)

Prof. Dr. Firdaus-e-Bareen

- Younis, H., Nazir, A and Bareen, F. (2020). Management of tannery solid waste (TSW) through pyrolysis and characteristics of its derived biochar. Polish Journal of Environmental Studies. 30:453–462.
- Iqbal, I. M., Shabbir, A., Shabbir, K., Barkworth, M. E., Bareen, F. and Khan, S.M. (2020). *Evolvulus nummularius* (L.) L. (Convolvulaceae): a new alien plant record for Pakistan. BioInvasions Records. 9:702-711.



- Iqbal, I. M., Shabbir, A., Shabbir, K., Naveed, M., Urooj, F., Butt, A., Khan, R., Singh, N. and Bareen, F. (2020). Tree flora of the Botanical Garden and Punjab University, Lahore, Pakistan. *Biologia* 66:99-124.
- Zaheer, I. E., Ali, S., Rizwan, M., Bareen, F. Abbas, Z., Bukhari, S.A.H., Wijaya, L., Alyemeni, M.N., Ahmad, P. (2019). Zinc-lysine prevents chromium-induced morphological, photosynthetic, and oxidative alterations in spinach irrigated with tannery wastewater. *Environmental Science and Pollution Research*. 26: 28951–28961
- Bareen, F., Rafiq, K., Shafiq, M. and Nazir, A. (2019). Uptake and leaching of Cu, Cd and Cr after EDTA application in sand columns using sorghum and pearl millet. *Polish Journal of Environmental Studies*. 28: 2065-2077.
- Sabir, A. A., Bareen, F., Rahman, Z. and Ahmad, S. R. (2019). Growth and acclimatization response of sunflower plantlets treated with naphthyl acetic acid-based environment friendly plant growth promoters. *Polish Journal of Environmental Studies*. 28: 1897-1907.

Prof. Dr. Faheem Aftab

- Khalid, A and Aftab, F. (2020) Effect of exogenous application of IAA and GA3 on growth, protein content, and antioxidant enzymes of *Solanum tuberosum* L. grown in vitro under salt stress. *In vitro Cellular and Developmental Biology-Plant*. 56:377-389.

Prof. Dr. Abdul Nasir Khalid

- Jabeen, S., Naseer, A. and Khalid, A.N. (2020). *Russula rubricolor* sp. nov. from Himalayan forests of Pakistan. *Mycotaxon*. 135: 763–7744. (IF: 0.705)
- Crous, P. W., Cowan, D. A., Khalid, A. N., Kiran, M., Ullah, Z., Yilmaz, N., Larsson, E., Angelini, C. and Groenewald, J. Z. (2020). Fungal Planet description sheets: 1112–1181. *Persoonia-Molecular Phylogeny and Evolution of Fungi*. 45: 251– 409.
- Khan, J., Sher, H., Hussain, S. and Khalid, A. N. (2020). *Jahnoporus oreinus*, a rare fungus found in high-altitude moist temperate forests of Pakistan. *Mycotaxon*. 135 (4): 875–881.
- Khan, J., Sher, H., Hussain, S. and Khalid, A. N. (2020) First report of *Hericium cirrhatum* from Pakistan. *Mycotaxon*. 135 (4): 843–850.
- Usman, M. and Khalid, A. N. (2020). *Termitomyces acriumbonatus* sp. nov. (Lyophyllaceae, Agaricales) from Pakistan. *Phytotaxa*. 477(2): 217-228.
- Fatima, M., Habib, K., Czarnota, P. and Khalid, A. N. (2020). Two new *Bacidina* species (Lecanorales, Ascomycota) from Pakistan. *Folia Cryptogamica Estonica*. 58: 25-34.
- Zulfiqar, R., Habib, K., Khan, M. and Khalid, A. N. (2020) A taxonomic and phylogenetic study of some *Lecidella* species from Pakistan. *Webbia*. 75(2): 219-230.
- Izhar, A., Khalid, A. N. and Bashir, H. (2020). *Termitomyces sheikhupurensis* sp. nov. (Lyophyllaceae, Agaricales) from Pakistan, evidence from morphology and DNA sequences data. *Turkish Journal of Botany*. 44(6): 694-704.



- Aman, N., Khalid, A.N. and Moncalvo, J. M. (2020). *Ahmadea dalanensis* gen. and sp. nov., an edible truffle from Pakistan. *Studies in Fungi* 5(1): 452–461.
- Yuan, H. S., Lu, X., Dai, Y. C., Khalid, A. N., Hyde, K. D., Kan, Y. H., Kusan, I. and Cui, B. K. (2020). Taxonomic and phylogenetic contributions to fungal taxa. *Fungal Diversity*. 104-1-266.
- Anwar, Afshan, N. S., Ishaq, A., Riaz, M., Khalid, A. N. and Uddin, S. (2020). First Pakistani report of *Erysiphe betae* on the invasive weed *Chenopodium ambrosioides*. *Mycotaxon*. 135(3): 649-655.
- Siddique, W. N., Bashir, H. and Khalid, A. N. (2020) Cultivation of wild indigenous *Agaricus bisporus* and *Agaricus subrufescens* from Pakistan. *Journal of Fungal Biology*. 10(1) 466-474.
- Naseer, A., Garrido-Benavent, I., Khan, J., Ballara, J., Mahiques, R., Khalid, A. N. and Sher, H. (2020). *Cortinarius pakistanicus* and *C. pseudotorvus*: Two new species in oak forests in the Pakistan Himalayas. *MycKeys*. 74: 91-108.
- Khalid, A. N. and Naseer, A. (2020) *Amanita pseudovaginata* from Pakistan. *World Journal of Biology and Biotechnology*. 5(3): 19-21.
- Saba, M. and Khalid, A. N. (2020). *Mallocybe velutina* (Agaricales, Inocybaceae), a new species from Pakistan. *Mycoscience*. 61: 348-252.
- Bashir, H., Usman, M. and Khalid, A. N. (2020). *Lepiota cholistanensis* a new species of *Lepiota* (Agaricaceae: Basidiomycota) from Cholistan desert, Pakistan. *Phytotaxa*. 455(4): 267-276.
- Khan, J., Sher, H., Hussain, S. and Khalid, A. N. (2020). *Cortinarius brunneocarpus* var. *microsporus*, an interesting variety with Eurasian distribution. *Plant Systematics and Evolution* 306(5) 1-9
- Habib, K., Zulfiqar, R. and Khalid, A. N. (2020) Additions to the lichenized order *Pertusariales* (lichenized *Ascomycetes*) in Pakistan. *Nova Hedwigia*. 111(1-2): 219-229.
- Saleemi, S., Iqbal, Z. and Khalid, A. N. (2020) Morphological and pathological effects of *Aspergillosis* in Silver Carp, *Hypophthalmichthys molitrix*. *Punjab University Journal of Zoology*. 35(1): 129-133.
- Saba, M., Haelewaters, D., Pfister, D. H. and Khalid, A. N. (2020) New species of *Pseudosperma* (Agaricales, Inocybaceae) from Pakistan revealed by morphology and multi-locus phylogenetic reconstruction. *MycKeys*. 69:1-31.
- Ali, M., Khan, J., Bashir, H., Niazi, A. R., Sher, H. and Khalid, A. N. (2020) *Infundibulicybe macrospora* sp. nov., a new and noteworthy species from Himalayan moist temperate forests of Pakistan. *Phytotaxa*. 452(4): 268-277
- Afshan, N. S., Mujahid, U., Ishaq, A. and Khalid, A. N. (2020) First report of leaf spot of *Sarcococca saligna* caused by *Paraconiothyrium brasiliense* in Pakistan. *Journal of Plant Pathology*. 102-561.
- Riaz, M., Afshan, N. S., Ishaq, A., Niazi, A. R. and Khalid, A. N. (2020). First report of Powdery Mildew caused by *Leveillula lappae* on *Tricholepis stewartii* in Pakistan. *Plant Disease*. 104(2): 591.



- Usman, M. and Khalid, A. N. (2020). *Zhuliangomyces pakistanicus*, a new species of *Zhuliangomyces* (Amanitaceae: Basidiomycota) from Pakistan. *Phytotaxa*. 443(2): 198-206
- Afshan, N. S., Anwar, A., Riaz, M., Din, S. U. and Khalid, A. N. (2020) *Urocystis piptatheri* sp. nov. (Urocystaceae), a new species of smut fungus on *Piptatherum laterale* (Poaceae) from Pakistan. *Phytotaxa*. 442(2): 80-88
- Jabeen, S. and Khalid, A. N. (2020) *Pseudosperma flavorimosum* sp. nov. from Pakistan. *Mycotaxon*. 135(1): 183-193
- Saba, M., Khan, J., Sarwar, S., Sher, H. and Khalid, A. N. (2020) *Gymnopus barbipes* and *G. dysodes*, new records for Pakistan. *Mycotaxon*. 135(1): 203-212
- Razaq, A., Ilyas, S. and Khalid, A. N. (2020) Molecular systematics and evolutionary relationships of some inland gilled Basidiomycetes from the Himalayan moist temperate forests of Pakistan based on rDNA marker. *Pakistan Journal of Botany*. 52(3): 1055-1063
- Kiran, M., Sattar, A., Zamir, K., Haelewaters, D. and Khalid, A. N. (2020) Additions to the genus *Chroogomphus* (Boletales, Gomphidiaceae) from Pakistan. *MycKeys* 66 23-38
- Ullah, Z., Khurshed, R., Khan, M.B., Ahmad, I., Jabeen, S., Faisal, M., ... & Khalid, A. N. (2020) *Melanoleuca kashmirensis* sp. nov. in subg. *Urticocystis* from Pakistan. *Phytotaxa* 434(1): 89-100
- Bashir H., Jabeen S., Bashir H. and Khalid A. N. (2020) *Gymnopilus dunensis*, a new species from Punjab province, Pakistan. *Phytotaxa*. 428 (1): 51–59
- Ishaq, A., Sadiqullah, Aime, M.C., Afshan, N. S., Fiaz, M., Niazi, A.R. and Khalid, A. N. (2020) First report of Asian Pistachio rust (*Pileolaria Castagne* a rare genus) in Pakistan. *Canadian Journal of Plant pathology*. 42(2): 210-217
- Ullah, S., Wilson, A. W., Fiaz, M., Hussain, S., Mueller, G. M. and Khalid, A. N. (2020) *Russula shanglaensis* sp. nov. (Basidiomycota: Russulales), a new species from the mixed coniferous forests in District Shangla, Pakistan. *Turkish Journal of Botany*. 44: 85-92
- Afshan, N.S., Mujahid, U., Ishaq, A. and Khalid, A. N. (2019) First report of leaf spot of *Sarcococca saligna* caused by *Paraconiothyrium brasiliense* in Pakistan. *Journal of Plant Pathology*, 1-1. <https://doi.org/10.1007/s42161-019-00449-6>
- Hanif, M., Khalid, A. N., and Exeter, R. L. (2019). *Ramaria flavescentoides* sp. nov. with clamped basidia from Pakistan. *Mycotaxon*, 134(2), 399-406. <https://doi.org/10.5248/134.399>
- Ullah, S., Abbasi, M., Khalid, A. N., Ishaq, A., Fiaz, M. and Aime, M. C. (2019). *Allodus prostii* comb. nov., causal agent of tulip rust. *Nova Hedwigia*, 108(3-4): 3-4. [10.1127/nova_hedwigia/2019/0534](https://doi.org/10.1127/nova_hedwigia/2019/0534)
- 43. Ullah, S., Wilson, A. W., Tulloss, R. E., Fiaz, M., Mueller, G. M. and Khalid, A. N. (2019). *Amanita cinis* and *A. olivovaginata* (Basidiomycota, Amanitaceae), two new species, and the first record of *A. emodotrygon*, from Northwestern Pakistan. *Turkish Journal of Botany*. DOI: 10.3906/bot-1903-21.



- Ishaq, A., Aime, M. C., Ayala, E. K., Ullah, S., Afshan, N. S., Fahad, M. and Khalid, A. N. (2019). First report of Asian pistachio rust (*Pileolaria pistaciae*) in Pakistan. *Canadian Journal of Plant Pathology*. <https://doi.org/10.108f0/07060661.2019.1647882>
- Naseer, A., Ghani, S., Niazi, A. R. and Khalid, A. N. (2019). *Inocybe caroticolor* from oak forests of Pakistan. *Mycotaxon*, 134(2): 241-251. <https://doi.org/10.5248/134.241>
- Jabeen, S., Kiran, M., Khan, J., Ahmad, I., Ahmad, H., Sher, H. and Khalid, A. N. (2019). *Amanita ahmadii*, a new species of *Amanita* subgenus *Amanitina* section *Validae* from Pakistan. *MycKeys*. 56: 81. <https://doi.org/10.3897/mycokeys.56.31819>
- Saba, M., Haelewaters, D., Fiaz, M., Khalid, A. N. and Pfister, D. H. (2019). *Amanita mansehraensis*, a new species in section *Vaginatae* from Pakistan. *Phytotaxa*. 409(4): 189-201. <https://doi.org/10.11646/phytotaxa.409.4.1>
- Saba, M., Haelewaters, D., Iturriaga, T., Ashraf, T., Khalid, A. N. and Pfister, D. H. (2019). *Geopora ahmadii* sp. novel. from Pakistan. *Mycotaxon*. 134(2): 377-389. <https://doi.org/10.5248/134.377>
- Izhar, A., Bashir, H. and Khalid, A. N. (2019). A new species of *Conocybe* (*Bolbitaceae*) from Punjab, Pakistan. *Phytotaxa*. 402(5): 251-258. <https://doi.org/10.11646/phytotaxa.402.5.4>
- Khan, M. B., Ishaq, M., Kiran, M., Fiaz, M. and Khalid, A. N. (2019). *Stropharia atroferruginea* (*Agaricales*, *Strophariaceae*), a new species from Battagram district, Pakistan. *Phytotaxa*. 409(2): 83-92. <https://doi.org/10.11646/phytotaxa.409.2.4>
- Naseer, A., Khalid, A. N., Healy, R., and Smith, M. E. (2019). Two new species of *Hygrophorus* from temperate Himalayan Oak forests of Pakistan. *MycKeys*. 56:33. <https://doi.org/10.3897/mycokeys.56.30280>
- Cabon, M., Li, G. J., Saba, M., Kolarik, M., Jancovicova, S., Khalid, A. N. and Adamčík, S. (2019). Phylogenetic study documents different speciation mechanisms within the *Russula globispora* lineage in boreal and arctic environments of the Northern Hemisphere. *IMA Fungus*. 1(1): 5. <https://doi.org/10.1186/s43008-019-0003-9>
- Naseer, A., Sarwar, S., Khalid, A. N., Healy, R. and Smith, M. E. (2019). *Hortiboletus kohistanensis* (*Boletaceae*), a new bolete species from temperate and subalpine oak forests of Pakistan. *Phytotaxa*. 388(3):239-246. <http://dx.doi.org/10.11646/phytotaxa.388.3.3>
- Ullah, S., Vizzini, A., Fiaz, M., Ur Rehman, H., Sher, H. and Khalid, A. N. (2019). *Strobilomyces longistipitatus* (*Boletaceae*) newly recorded from Hindukush and Himalayan moist temperate forests of Pakistan. *Nova Hedwigia*, 108(1-2): 243-254. https://doi.org/10.1127/nova_hedwigia/2018/0495

Prof. Dr. Shakil Ahmed

- Ahmed, S., Ali, R., Ansari, M., Ahmad, M. N., Haider, A., Jabeen, F. and Zulfiqar, A. (2020). Effect of sodium fluoride stress on productivity of *Solanum melongena* L. Fluoride. 53(3): 521-530.



- Ahmed, S., Karamat, M., Haider, A., Ahmad, M. N., Jabeen, F. and Ansari, M. (2020) Assessment the effects of salicylic acid on yield and yield characteristics of *Pisum sativum* L. under fluoride stress. *Fluoride*. 49:293–302.
- Ahmed S., Ali, R., Ansari, M., Ahmad, M. N., Haider, A., and Jabeen, F. (2020) Fluoride-induced abnormalities and modulations in growth parameters of *Solanum melongena* L. (brinjal, bengun, aubergine, eggplant) *Fluoride*. 53(3): 457-468.
- Ansari, M., Shahzadi, K. and Ahmed, S. (2020) Chapter: 01---Nanotechnology: A Breakthrough in Agronomy. Book Nanoagronomy.
- Shah, A. A., Ahmed S., Ali A. and Yasin N. A. (2020). 2-Hydroxymelatonin mitigates cadmium stress in *Cucumis sativus* seedlings: Modulation of antioxidant enzymes and polyamines *Chemosphere*. <https://doi.org/10.1016/j.chemosphere.2019.125308>.
- Ahmed, S., Karamat, M., Haider, A., Jabeen, F., Ahmad, M N., Ansari, M., Zulfiqar, A., Jalal, A. and Nizam A. (2020). Ameliorative effects of salicylic acid on dry biomass and growth of *Pisum sativum* L. under sodium fluoride stress. *Fluoride*. 53(2): 335-355
- Shah, A. A., Ahmed, S. and Yasin, N. A. (2020) Cadmium stress consolation in melatonin supplemented *Cucumis sativus* through modulation of antioxidative defense system. *Iranian Journal of Plant Physiology*. 10(2): 3135-3154
- Shah, A. A., Ahmed, S., Abbas, M. and Yasin N. A. (2020). Seed priming with 3-epibrassinolide alleviates cadmium stress in *Cucumis sativus* through modulation of antioxidative system and gene expression. *Scientia Horticulturae* <https://doi.org/10.1016/j.scienta.2020.109203>
- Aftab, Z. H., Ahmed, S., Aftab, A., Siddique, I., Aftab, M., Yousaf, Z. and Chaudhry, F. A. (2020) Wood degrading mushrooms potentially strong towards laccase biosynthesis in Pakistan. *Wood Research*. 65(5): 809-818
- Ahmed, S., Ali, R., Ansari, M. and Ahmad, M. N., Haider, A., Jabeen, F. and Zulfiqar, A. (2020) Effect of sodium fluoride stress on productivity of *Solanum melongena* L. *Fluoride*. 53(3): 521-530 (IF: 1.00)
- Ahmed, S., Ali, R., Ansari, M., Ahmad, M. N., Haider, A. and Jabeen, F. (2020) Fluoride-induced abnormalities and modulations in growth parameters of *Solanum melongena* L. (brinjal, bengun, aubergine, eggplant) *Fluoride*. 53(3): 457-468
- Ahmed S., Saleemi I., Jabeen F., Zia A., Haider, A., Syedd S. A. (2019). Status of yield characteristics of turnip under fluoride stress. *Fluoride*. 52(3):354-361 (IF: 1.438). www.fluorideresearch.online/epub/files/029.pdf
- Ahmed, S., Saleemi, I., Jabeen, F., Zia, A., Ahmad, M. N., Haide,r A., Khan, A. A. and Syed, S. A. (2019) Assessing the effect of foliar and soil fluoride stress on turnip. *Fluoride*. 52(3): 273-283 (IF: 1.438) www.fluorideresearch.org/epub/files/025.pdf
- Ahmed, S., K. Khalid, F. Jabeen, Ahmad, M. N., Zia, A., Haider, A., Muhajid, M. and Zia, D. (2019). Evaluating fluoride stress on *Abelmoschus esculentus* L. *Fluoride*. 52(3):354-361. (IF: 1.438). www.fluorideresearch.org/epub/files/021.pdf



- Ahmed, S., Khalid, K., Jabeen, F., Nauman, M., Zia, A., Muhajid, M., Zia, D. and Haider, A. (2019). Productivity assessment of Okra under sodium fluoride stress. *Fluoride*. 52(3):348-353. (IF: 1.438) www.fluorideresearch.org/epub/files/020.pdf

Dr. Najam ul Sehar Afshan

- Haelewaters, D., Dima, B., Abdel-Hafiz, B.I.I., Abdel-Wahab, M.A., Abul-Ezz, S.R., Acar, I., Aguirre-Acosta, E., Aime, M.C., Al-demir, S., Ali, M., Ayala, O., Bakhit, M. S., Bashir, H., Battistin, E., Bendiksen, E., Castro-Rivera, R., Çolak, O. F., De Kesel, A., de la Fuente, J. I., Dizkırıcı, A., Hussain, S., Jansen, G.M., Kaygusuz, O., Khalid, A.N., Khan, J., Kiyashko, A. A., Larsson, E., Martínez-González, C.R., Morozova, O.V., Niazi, A.R., Noordeloos, M.E., Pham, T.H.G., Popov, E.S., Psurtseva N.V., Schoutteten N., Sher H., Türkiye İ., Verbeken A., Ahmad, H., Afshan, N. S., Christe, P., Fiaz, M., Glaizot, O., Liu, J., Majeed, J., Markotte, W., Nagy, A., Nawaz, H., Papp, V., Péter, Á., Pfliegler, W.P., Qasim, T., Riaz, M., Sándor, A.D., Szentiványi, T., Voglmayr, H., Yousaf, N. and Krisai-Greilhuber, I. (2020) *Fungal Systematics and Evolution*. *Sydowia*. 6: 271–296
- Anwar, A., Afshan, N. S., Ishaq, A., Riaz, M., Khalid, A. N. and Sirajuddin. (2020). First Pakistani report of *Erysiphe betae* on the invasive weed *Chenopodium ambrosioides*. *Mycotaxon*. 135:649–655
- Afshan, N. S., Anwar, A., Riaz, M., Sirajuddin and Khalid, A. N. (2020) *Urocystis piptatheri* sp. nov. (Urocystaceae), a new species of smut fungus on *Piptatherum laterale* (Poaceae) from Pakistan. *Phytotaxa*. 442 (2): 80–88
- Afshan, N. S. Riaz, M. and Saqib, A. (2020) *Aecidium peristrophes*, a new record for Pakistan. *Mycotaxon*. 135: 275–280 (IF: 0.705).
- Anwar, A., Afshan, N. S., Ishaq, A., Liaqat, N. and Sirajuddin. (2020). First Report of Powdery mildew caused by *Podosphaera erigerontis-canadensis* on *Conyza bonariensis* in Pakistan. *Plant Disease* 104, (9) 2521
- Riaz, M., Afshan, N. S., Ishaq, A., Niazi, A.R., and Khalid, A. N. (2020) First Report of Powdery Mildew Caused by *Leveillula lappae* on *Tricholepis stewartii* in Pakistan. *Plant Disease*. 104(2):591.
- Afshan, N.S., Mujahid, U., Ishaq, A. and Khalid, A.N. (2020) First Report of Leaf spot of *Sarcococca saligna* caused by *Paraconiothyrium brasiliense* in Pakistan. *Journal of Plant Pathology*. 102:561
- Ishaq, A., Sadiqullah, Aime, M.C., Afshan, N. S., Fiaz, M., Niazi, A.R. and Khalid, A. N. (2020). First report of Asian Pistachio rust (*Pileolaria Castagne* a rare genus) in Pakistan. *Canadian Journal of Plant Pathology*. 42(2): 210-217.
- Ishaq, A., Afshan, N. S. and Khalid, A. N. (2019). First report of *Melampsora dimorphospora* on white willow in Pakistan, *Journal of Plant Pathology*. 101(1):197–197. <https://doi.org/10.1007/s42161-018-0147-2>.

Dr. Abdul Rehman Khan Niazi

- Niazi, A.R., and Ijaz, H., (2020). *Sparassis crispa*, its proximate analysis and in-vitro biological activities. *International Journal of Medicinal Mushrooms*. 23(1):



- Ali, M., Bashir, H., Niazi, A. R. and Khalid, A. N. (2020). *Infundibuli cybe alba*. from moist temperate forests of Pakistan. *Phytotaxa*. 452(4)
- Ishaq, A., Sadiqullah, Aime, M.C., Afshan, N. S., Fiaz, M., Niazi, A. R. and Khalid, A. N. (2020). First report of Asian pistachio rust (*Pileolaria Castagne*) a rare genus in Pakistan. *Canadian Journal of Plant Pathology*. 42(2): 210-217.
- Naseer, S. Asghar, R. Khurshid Niazi, A. R. and Khalid, A. N. (2019). The Genus *Otidea* (Pezizales, Pyronemataceae) from Pakistan. *Sylwan*. 163(10):145-155.
- Naseer, S. Ghani, Niazi, A. R. and A. N. Khalid (2019). *Inocybe caroticolor* from oak forests of Pakistan, *Mycotaxon*. 134, 241-251.

Dr. Humera Afrasiab

- Ali, N., Afrasiab, H. and Anwar, S. (2019). Antibacterial activity of leaf extracts of seven grape cultivars against six strains of bacteria. *Advancements in Life Sciences*. 6(4) 159- 164.
- Anwar, S., Afrasiab, H. and Ali, N. (2019). Evaluation of antioxidant and antibacterial activity of methanolic extracts of indigenous garlic cultivars from Pakistan. *Indo American Journal of Pharmaceutical Sciences*. 6(4):7377-7384.
- Afrasiab, H. and Khalid, A. (2019). Micropropagation and callogenesis of *Pisum sativum* L. cultivars, *Climax and Janass. Journal Plantarum*. 1(1): 12-16.
- Tariq, A., Afrasiab, H. and Farhat, F. (2020) In vitro culturing of *Citrullus colocynthis* L.: an endangered medicinal plant. *Advancements in Life Sciences*. 8(1) 52-58.

Dr. Ambreen Ahmed

- Ahmed A. and Hasnain S. (2020) Extraction and Evaluation of Indole Acetic Acid from Indigenous Auxin-Producing Rhizosphere Bacteria. *Journal of Animal and Plant Sciences*. 30 (4): 1024-1036.
- Wagi, S. and Ahmed, A. (2020) Bacterial Nanobiotic potential. *Green Synthesis and Processing* 9: 203–211.
- Fatima, H. and Ahmed, A. (2020) Microscopic green technology is effective in reducing chromium toxicity in plants. *Plant, Soil and Environment*. Vol 4:
- Ahmed, A., Tariq, A. and Habib, S. (2020). Interactive Biology of Auxins and phenolics in plant environment In: *Plant Phenolics in Sustainable Agriculture* 11:7-133
- Hassan, S. and Ahmed, A. (2020) Isolation and Characterization of Mesophilic Rhizobacteria from Gilgit-Baltistan and their Impact on the Growth of *Triticum aestivum* L.: *LGU Journal of Life Sciences*. 4(2) 122-128.
- Tariq, A., Ahmed, A. and Abdullah, H. (2020) PGPR: Biostimulants as effective drought mitigating agents. *Technium: Romanian Journal of Applied Sciences and Technology*. 2(7) 246-257
- Ahmed, A. (2019) Comparative analysis of pregermination and post-germination inoculation treatments of *Zea mays* L. to mitigate chromium toxicity in Cr-contaminated soils. *Polish Journal of Environmental Studies* 28(2) 597 – 607 DOI:10.15244/pjoes/81570



- Habib S, Fatima H and Ahmed A. (2019). Comparative analysis of pregermination and post-germination inoculation treatments of Zeamays L. to mitigate chromium toxicity in Cr-contaminated soils. Polish Journal of Environmental Studies, 28(2): 1-11

Dr. Aisha Nazir

- Bareen, F. Rafiq, K., Shafiq, M. and Nazir, A. (2019). Uptake and leaching of Cu, Cd, and Cr after EDTA application in sand columns using Sorghum and Pearl Millet. Polish Journal of Environmental Studies. 28(4):2065-2077. DOI: <https://doi.org/10.15244/pjoes/84834>.
- Younis, H., Nazir, A. and Bareen, F. (2020). Management of Tannery Solid Waste (TSW) through Pyrolysis and characteristics of its derived Biochar. 30(1):453–462.
- DOI: <https://doi.org/10.15244/pjoes/117662>.

Dr. Muhammad Shafiq

- Bareen, F., Rafiq, K., Shafiq M. and Nazir, A. (2019). Uptake and leaching of Cu, Cd, and Cr after EDTA application in sand columns using Sorghum and Pearl Millet. Polish Journal of Environmental Studies. 28(4): 2065-2077. DOI: <https://doi.org/10.15244/pjoes/84834>.
- Aslam, H.M.U., Butt, M. A., Bareen, F., Shafiq, M., Butt, F. A. Shahid, M. Javaid, A. and Husnain, A. (2019). Organic Waste Composting: A Resource Recovery Approach towards Sustainable Environment. Proceedings of the World Conference on Waste Management Journal. 1(2):30-41. DOI: <https://doi.org/10.17501/26510251.2019.1203>.

Dr. Zahoor Ahmad Sajid

- Khilji, S.A. and Sajid, Z.A (2020). Phytoremediation potential of lemongrass (*Cymbopogon flexuosus* stapf.) grown on tannery sludge contaminated soil. Applied Ecology and Environmental Research. 18(6): 7703-7715. ISSN 1589-1623. (IF:0.712). DOI: http://dx.doi.org/10.15666/aeer/1806_77037715
- Sajid, Z. A. and Khilji, S.A. (2020). Evaluation of salt stress tolerance on some growth and biochemical attributes in Suaeda fruticosa L. (Forssk). Biologia (Pakistan). 42(II): 103-110.
- Khilji, S. A. and Sajid, Z.A. (2020). Appraisal of the effect of industrial effluents on the chlorophyll, protein and heavy metals contents in water hyacinth (*Eichhornia crassipes* L.) Biologia. 42(II): 203-215.

Dr. Arooj Naseer

- Naseer, A. Book review 'Lichen Study Guide for Oklahoma and Surrounding States. Plant Science Bulletin by AJB.
-
- Naseer, A., Asghar, S., Khurshid, R., Niazi, A. R. and Khalid, A. R. (2019). The Genus Otidea (Pezizales, Pyronemataceae) from Pakistan. Sylwan, 163(10): 145–155 (IF:0.691). http://sylwan.ibles.org/syl/journals/published/1570158488_HBy83.pdf



- Naseer, A., Ghani, S. and Khalid, A. N. (2019). First record of *Inocybe caroticolor* (Inocybaceae) from oak forests of Pakistan. *Mycotaxon*. 134(2): 241–251. (IF: 0.815). <https://doi.org/10.5248/134.241>
- Naseer, A., Khalid, A. N., Healy, R. and Smith, M. E. (2019). Two new species of *Hygrophorus* from temperate Himalayan Oak Forests of Pakistan. *Myckeys* 56:33–47 (IF: 3.62). <http://10.3897/myckeys.56.30280>
- Naseer, A., Sarwar, S., Khalid, A. N., Healy, R. and Smith, M. E. (2019). *Hortiboletus kohistanensis* (Boletaceae), a new bolete species from temperate and subalpine oak forests of Pakistan. *Phytotaxa*. 388 (3): 239–246. (IF: 1.185). <https://doi.org/10.1185/10.1185>
- Ishaq, M., Naseer, A., Fiaz, M. and Khalid, A. N. (2019). *Amanita subjunquillea* (Amanitaceae), a lethal mushroom and its ectomycorrhizal associate, newly reported from Oak Forest of Buner, Pakistan. *Mycotaxon*, 134(3), 413–423. <https://doi.org/10.5248/134.413> (IF: 0.815).

RESEARCH COLLABORATION

○ Indigenous

Prof. Dr. Faheem Aftab with:

- Dr. Uzma Qaisar (SBS)
- Prof. Dr. Traud Winkelmann

Dr. Abdul Nasir Khalid with:

- Dr. Muhammad Fiaz (Hazara University, Mansehra)
- Dr. Shah Hussain & Dr. Hassan Sheer (University of Swat).
- Dr. Zafar Iqbal (University of the Punjab, Lahore).
- Dr. Abdul Rehman Khan Niazi, (University of the Punjab, Lahore).
- Dr. Muhammad Hanif, (Govt. College University, Lahore).
- Dr. Samina Sarwar, (Lahore College for Women University, Lahore).

Dr. Abdul Rehman Niazi with:

- Prof. Dr. Habib Ahmad, (Hazara University, Mansehra, KPK. Pakistan).
- Dr. Shaukat Bhatti, (University of Azad Jammu and Kashmir).
- Prof. Dr. Shamshad, (Institute of Chemistry, University of Punjab, Lahore).
- Dr. Hanif Ahmad, (Govt. College University, Lahore).
- Dr. Samina Sarwar, (Lahore College for Women University, Lahore).

○ Foreign Linkages

Prof. Dr. Firdaus-e-Bareen with

- Cornell University, Ithaca NY USA
- Texas A & M University TX USA

Dr. Abdul Nasir Khalid with

- Dr. Reinhard Berndt (ETH, Switzerland)
- Dr. Cvetomir M. Denchev (Bulgaria)



- Prof. Dr. Zhu L. Yang (China)
- Dr. Jacques Guinberteau (France)
- Dr. G. Moreno (Spain)
- Dr. H. Kreisel (Germany)
- Dr. Bryn Masson Dentinger (Royal Botanical Garden, Kew, UK)
- Dr. Donald Fister (Havrad University, USA)
- Dr. Tom D. Bruns (University of California, USA)

Dr. Abdul Rehman Khan Niazi with

- Dr. Rodham E. Tulloss, (New Jersey, USA).
- Prof. Dr. Zhu L. Yang (China).
- Dr. Alejendra Becerra (Argentina).
- Dr. Xavier Parlade (Spain).
- Dr. Slavomir Adamcik (Czech).

DEPARTMENT OF MICROBIOLOGY & MOLECULAR GENETICS

○ **R&D-An Overview**

Established in 2002, in University of the Punjab, Department of Microbiology and Molecular Genetics, has emerged as one of the leading department in the university. The department has well equipped research labs and basic facility for Microbiology and Molecular Genetics related research. Currently there are 25 faculty members among them 20 are PhDs and are running their independent research groups. The main research areas are Human Genetics, Bacterial Biofilms, Environmental Microbiology, Metal Detoxification and Water Treatment, Agricultural Microbiology, Agricultural biotechnology, Plant Microbial Interactions, Biofertilizers, Biopesticides, Microbial Ecology, Microbial Diversity, Bioplastics, Industrial Microbiology, Drugs Discovery, Immunology, Medical Microbiology, bacteriophage therapy, anaerobic bacteriology, biodiesel and biofuels, Cancer Metabolism/Therapy, and Bioinformatics. There are 77 PhD students at the department, and annually about 78 research papers in impact factor internationally reputed journals are published.

○ **Projects: Completed**

- Research project entitled The Key Role of FOXP3 Gene in Association with Breast Cancer: A study from Pakistan. Funded by the University of the Punjab, Lahore, (2019-2020), of worth Pak Rs. 250,000, *PI: Dr. Anjum Nasim Sabri*
- Research Project entitled “Molecular and microbiological characterization of bla NDM Producing Enterobacteriaceae from Lahore, Pakistan.”. Funded by the University of the Punjab, Lahore, (2019-2020), of worth Pak Rs. 0.25 million, *PI: Dr Sikander Sultan.*
- Research Project entitled “Comparative assessment of biologically and chemically synthesized selenium nanoparticles on wheat growth” (2019-2020). Funded by University of the Punjab, Lahore. of worth Pak Rs. 0.25 million, *PI: Dr. Muhammad Faisal*



- Dr. Zakia Latif Research Project “Plant growth promoting bacteria from bovine manure to use as biofertilizer for sustainable vegetable farming” (2019-2020). University of the Punjab, Lahore. *PI: Dr. Zakia Latif*
- Research Project titled “Anticancer Therapy: Targeting De Novo Lipid Synthesis” funded by Higher Education Commission Pakistan under National Research Program for Universities. *PI: Dr. Nousheen Zaidi.*
- Research Project entitled, “Production and characterization of bacteria using Plant oil for synthesis of Ecofriendly Bioplastics” Funded by University of the Punjab of worth 200000/-PKR. *PI: Dr. Nazia Jamil*
- Research Project entitled “Isolation and characterization of oil degrading bacteria from industrial effluents.” (2019-2020). Funded by the University of the Punjab, Lahore, (2019-2020), of worth Pak Rs. 0.2 million, *PI: Dr. Abdul Rehman.*
- Research Project titled “Microphenotyping system: Screening plant growth promoting rhizobacteria to grow wheat (*Triticum aestivum* L.) under drought stress” (2019-2020). Funded by University of the Punjab, Lahore, Rs. 0.150 million. *PI: Dr. Basharat Ali*
- Research Project entitled “Preparative screening of *Streptomyces* sp. SAS22 for purification and structure elucidation of the antitumor compounds” (2019-2020), Funded by University of the Punjab, Lahore, of worth PKR 0.15 million. *PI: Dr. Imran Sajid*
- Research Project entitled “Optimization of indigenous protocol for Autologous Dendritic cell vaccine against cancer. (2019-2020). Funded by University of the Punjab, Lahore, of worth PKR 0.15 million. *PI: Dr. Zaigham Abbas*
- Research project entitled, “Isolation, Purification and Characterization of Novel Peptides from common aero-allergens encountered in Pakistan. (2017-2020) by Higher Education Commission, Pakistan. Funding amount: 4.02 million *PI: Dr. Zaigham Abbas*
- Research project entitled, “Isolation and characterization of bacteriophages against the multi-drug resistant bacterial pathogens to be used for phage therapy. Funded by Higher education commission of Pakistan (2016-2020), of Worth 6.8 million PKR/- *PI: Dr. Shafiq ur Rehman*
- Research Project entitled “: Cloning, expression and characterization of virolysin genes of bacteriophages against *Pseudomonas aeruginosa*”. Funded by the University of the Punjab, Lahore, (2019-2020), of worth Pak Rs. 150,000/- *PI: Dr Shfiq ur Rehma.*
- Research Project entitled “Molecular characterization of carbapenem-resistant superbugs from a tertiary care hospital of Lahore, Pakistan”. Funded by the University of the Punjab, Lahore, (2019-2020), of worth Pak Rs. 0.15 million, *PI: Dr Saba Riaz.*
- Research Project entitled “Evaluation of synergistic use of plant and bacteria for chromium remediation” Funded by the University of the Punjab, Lahore, (2019-2020), of worth Pak Rs. 0.15 million, *PI: Dr. Rida Batool.*
- Research Project entitled “Association between variants in MTHFR gene and age-related cataract risk in Pakistani population” Funded by the University of the Punjab, Lahore, (2019-2020), of worth Pak Rs. 150,000/- *PI: Dr Saira Malik.*



- Research Project entitled “Serological and Molecular Based Diagnosis of Toxoplasma gondii in Galliformes by using ToxPK1 gene”. Funded by the University of the Punjab, Lahore, (2019-2020), of worth Pak Rs. 150,000/- *PI: Dr Nageen Hussain.*
- Research Project entitled “Screening of Indigenous Microalgae for Anti-Diabetes Activities”. Funded by the University of the Punjab, Lahore, (2019-2020), of worth Pak Rs. 150,000/- *PI: Dr Mehboob Ahmed*
- Research Project entitled “Therapeutic Implications of the EVOO as lipid lowering agent in the diabetes mellitus type 2”. Funded by the University of the Punjab, Lahore, (2019-2020), of worth Pak Rs. 150,000/- *PI: Dr Samreen Riaz.*
- Research Project entitled Molecular genetic investigation of ventricular septal defects in Pakistani children funded by University of the Punjab, Lahore of worth Rs 150,000/- *PI: Dr. Shabana*
- Research Project entitled “Surveillance and Association of Skin Microbiota among Atopic Dermatitis (AD) patients of Lahore.”. Funded by the University of the Punjab, Lahore, (2019-2020), of worth Pak Rs.150,000/- *PI: Dr. Numan Javed.*
- Research project entitled “Analysis of malignant breast tumor risk associated with variants of meiotic recombination complex genes”. Funded by University of the Punjab, Lahore, (2019-2020) of worth pak Rs. 0.15 million, *PI: Dr. Warda Fatima*
- Research project entitled “Pharmacogenetic study of carboxyl reductase 1 (CBR1) and screening of a potent inhibitors for ALL”. funded by University of the Punjab, Lahore, (2019-2020) of worth PKR 125,000/- *PI: Ms. Ammara Khalid*
- Research Project entitled “Fabrication of Keratin Hydrogel Coated Metallic Nano-Complexes (K-Hy-AuNPs & K-Hy-AgNPs) For Effective Wound Treatments and Prevention of Wound Infections” (2019-2020) funded by University of the Punjab, Lahore of worth PKR 125,000/- *PI: Ms. Hera Naheed Khan*
- **Projects:** Newly launched
 - Bioremediation and removal of Arsenic as Arsenic sulfide by indigenous bacteria. Funded by the Higher Education Commission, Pakistan (2019-20), of worth 4.7 million PKR *PI:Dr Muhammad Faisal*
 - Project titled “The One with the Rumor: Diffusion of Covid-19-Related Misinformation in Pakistani Twitter Conversations” funded by SSRC. Dr. Nousheen Zehra Zaidi
 - Project titled “Crosstalk between tumor microenvironment and cancer cells” funded by University of the Punjab under Projects for CRC. *Dr. Nousheen Zehra Zaidi*
- **Publications**

Research Articles

 - Adomavicius, T., Guaita, M., Zhou, Y., Jennings, M. D., Latif, Z., Roseman, A. M., & Pavitt, G. D. (2019). The structural basis of translational control by eIF2 phosphorylation. *Nature communications*, 10(1), 2136.



- Aiysha, D., Latif, Z. (2020). Insights of organic fertilizer micro flora of bovine manure and their useful potentials in sustainable agriculture. PLOS ONE
- Ajaz, M., Rehman, A., Khan, Z., Nisar, MA, Hussain, SZ, 2019. Degradation of azo dyes by *Alcaligenes aquatilis* 3c and its potential use in wastewater treatment. AMB Express, 9:64.
- Ajaz, M., Shakeel, S. and Rehman, A., 2020. Microbial use for azo dyes degradation-a strategy for dyes bioremediation. International Microbiology, 23:149-159.
- Akram, W., Li, G., Ahmad, A., Anjum, T., Ali, B., Guo, J., Luo, W., Wu, T., Xie, D. and Wang, Q. (2019). *Alternaria brassicicola* causing leaf spot disease on broccoli in China. Plant disease, 103(11): 2960.
- Akram, W., Li, G., Ahmad, A., Anjum, T., Ali, B., Guo, J., Luo, W., Wu, T., Xie, D. and Mei, F. (2020). *Pseudocercospora exilis* causing leaf spot disease on *Brassica rapa* subsp. *parachinensis* in china. Plant Disease, 104(6): 1861
- Akram, W., Li, G., Ahmad, A., Anjum, T., Ali, B., Luo, W., Guo, J., Xie, D. and Wang, Q. (2019). Leaf Spot Disease Caused by *Alternaria arborescens*, *A. tenuissima*, and *A. infectoria* on *Brassica rapa* subsp. *parachinensis* in China. Plant Disease, 103(9): 2480.
- Alvi, I.A., Asif, M., Tabassum, R. Aslam, R., Zaigham Abbas & Shafiq ur Rehman. 2020. RLP, a bacteriophage of the family Podoviridae, rescues mice from bacteremia caused by multi-drug-resistant *Pseudomonas aeruginosa*. Arch Virol. <https://doi.org/10.1007/s00705-020-04601-x>.
- Amin, A., Latif, Z., Sarwar, A., Zeshan, B., Saleem, M.A. (2020). Molecular Characterization of Mercury Resistant Bacteria Isolated from Tannery Wastewater. Pak. J. Zool. pp 1-7
- Aqsa, N. and Hussain, N. 2019. Failure of tolerance to autoimmunity, Systemic Lupus Erythematosus. Austin Journal of clinical immunology, 6:1035.
- Arshad, F., Qadir, N.A., Ishaq, N., Mehmood, S., Shahzad, A., Fatima, W. 2019. Genotypic and computational sequence analysis of ALADIN gene causing Allgrove syndrome. Advancements in Life Sciences, 7(1):10-15.
- Asif M., I. A. Alvi., R. Tabassum, and Rehman. S.U. 2020. TAC1, an Un-classified Myoviridae Bacteriophage against *Acinetobacter baumannii* with High Burst Size and Short Latent Period. Archived of Virology. 165 (2): 419-424
- Aslam, M. S., Gull, I., Mahmood, M. S., Iqbal, M. M., Abbas, Z., Tipu, I., Ahmed, A., Athar, M. A. (2020): High yield expression, characterization, and biological activity of IFN α 2-T α 1 fusion protein, Preparative Biochemistry & Biotechnology, 50(3), 281-291
- Aslam, S., Thomas, W., Sajid, I. 2020. Taxonomic Diversity, Antimicrobial Potential and Metabolite Profiling of Aquatic Actinobacteria from Kallar Kahar Lake, Pakistan. Pakistan Journal of Zoology, 52(3). 1101-1110.
- Bano, A., Munir, I and Faisal, M. 2019.. Impact of phosphate solubilizing bacteria on wheat (*Triticum aestivum*) in the presence of pesticides. Brazilian Journal of Biology, 79 (1): 29-37.
- Bashir, R., Ali, H., Malik, S., Munir, N., Haq, R., Naz, S., Altaf, I. 2020. Association of STAT4 rs7574865 with susceptibility to juvenile onset systemic lupus erythematosus in Pakistani population. Sains Malaysiana, 11: 2755-2761



- Bashir, S., Iqbal, A. and Hasnain, S. 2020. Comparative analysis of endophytic bacterial diversity between two varieties of sunflower *Helianthus annuus* with their PGP evaluation. *Saudi Journal of Biological Sciences*, 27:720-726.
- Basit A, Ali T, Rehman S.U. 2020. Truncated human angiotensin converting enzyme 2; a potential inhibitor of SARS-CoV-2 spike glycoprotein and potent COVID-19 therapeutic agent. *Journal of biomolecular structure & dynamics* 2020:1-10.
- Cheema, M. T., Ye, J. J., Li, F. N., Lu, Q. P., Abbas, M., Sajid, I., Huang, D.L., Liu, S. W., Sun, C. H. 2020. *Auraticoccus cholistanensis* sp. nov., an actinomycete isolated from soil of the Cholistan Desert, and emended description of the genus *Auraticoccus*. *International Journal of Systematic and Evolutionary Microbiology*, DOI 10.1099/ijsem.0.004152.
- Fatima, W., Riaz, S., Aiman Shahzad, M., Naz, Z., Mahmood, S. and Hasnain, S. 2020. Chromosomal region 1q24.1 is associated with increased risk of schizophrenia in Pakistani population. *Gene*, 734:144390.
- Habib, M., Bano, S., Rehman, S. U., Shahzad, S., Javeed, N., Aslam, M. S., Abbas, Z. 2020. Hepatoprotective Role of Swimming Against Arsenic Induced Oxidative Stress In Mice. *Journal of King Saud University-Science*. 32 822–827
- Hassan, H.S., Malik, S. 2019. Genetic association of LCT-13910C/T and LCT-22018G/A with adult type hypolactesia in Pakistan. *Pakistan Journal of Zoology*, 51: 1999-2399
- Hussain, I., Tasneem, F., Gilani, U. S., Arshad, Muhammad, M. I., Haque, F. U., Abbas, Z., Umer, M., Shahzad, N. Human BK and JC polyomaviruses: Molecular insights and prevalence in Asia, *Virus Research*, Volume 278, 2020, 197860.
- Imran, M., Riaz, S., Shah, S. M. H., Batool, T., Khan, H. N., Sabri, A. N. and Naseem, S. 2020. In-vitro hemolytic activity and free radical scavenging by sol-gel synthesized Fe₃O₄ stabilized ZrO₂ nanoparticles. *Arabian Journal of Chemistry*, 13:7598-7608.
- Imran, M., Riaz, S., Sanaullah, I., Khan, U., Sabri, A.N., Naseem, S., 2019. Microwave assisted synthesis and anti microbial activity of Fe₃O₄-doped ZrO₂ nanoparticles. *Ceramic international*. 45: 10106-10113
- Ishfaq, A., Ali, E., Fatima, W., Hussain, N. 2020. Genetic Association of Angiotensin Converting Enzyme I/D Gene Polymorphisms with Breast Cancer. *European Journal of Biology and Biotechnology*, 1(4). DOI: <http://dx.doi.org/10.24018/ejbio.2020.1.4.41>
- Jabeen, F., Liaqat, A., Amjad, F., Sultan, M., Iqbal, S. Z., Sajid, I., Niazi, M. B. K., Sher, F. 2020. Synthesis of 5-fluorouracil crystals with novel organic acids as coformers and its anticancer evaluation against HCT-116 colorectal cell lines. *Crystal Growth and Design*. 20, 4, 2406–2414.
- Jamil, N., Dur-E-Shahwar, Sohail, R. 2019. Potentials of produced water *Bacillus* sp. for Pha production and plant growth promotion. *Proceedings of the X International Scientific Agricultural Symposium “Agrosym 2019”*. Dusan Kovacevic (ed) Published by University of East Sarajevo, Faculty of Agriculture, Republic of Srpska, Bosnia ISBN 978-99976-787-2-0, COBISS.RS-ID 8490776 page 1409-1415



- Javaid, A. and Hussain, N. 2019. Mutational analysis of Forkhead box P3 gene in Pakistani Human Immunodeficient virus patients. *Pakistan Journal of Zoology*, 51: 1987-1990.
- Junaid, K. and Rehman, A., 2019. Impact of vitamin D on infectious disease-tuberculosis-a review. *Clinical Nutrition Experimental*, 25: 1-10.
- Kabir, S., Tahir, Z., Mukhtar, N., Sohail, M., Muhammad Saqalein, M. and Rehman, A., 2020. Fluoroquinolone resistance and mutational profile of gyrA in pulmonary MDR tuberculosis patients. *BMC Pulmonary Medicine*, 20:138.
- Kalsoom, A., Batool, R. and Jamil N. 2020. An integrated approach for safe removal of chromium (VI) by *Brevibacterium* sp. *Pakistan Journal of Science*. 72(1): 18-24.
- Khalid, A., Aslam, S., Ahmed, M., Hasnain, S. and Aslam, A. 2019. Risk assessment of FLT3 and PAX5 variants in B-acute lymphoblastic leukemia: a case-control study in a Pakistani cohort. *PeerJ*, 7:e7195.
- Khan, F.U. and Hussain, N. 2020. A rare and severe threat to pediatric patients: Staphylococcal Scalded Skin Syndrome (SSSS). *International journal of biology and biotechnology*, 17 (3): 00-00.
- Khan, F.U. and Hussain, N. 2020. Serological and Molecular Based Diagnosis of *Toxoplasma gondii* in Galliformes by using ToxPK1 gene. *Journal of Scientific Research in Medical and Biological Sciences*, 1:116-122.
- Khan, Z., Nisar, M.A., Muzammil, S., Zafar, S., Zerr, I. and Rehman, A., 2019. Cadmium induces GAPDH- and- MDH mediated delayed cell aging and dysfunction in *Candida tropicalis* 3Aer. *Environmental Monitoring and Assessment*, 191:490: 1-9
- Li, G., Guo, J., Luo, W., Anjum, T., Akram, W., Ahmad, A., Ali, B., Adnan, M. and Fu, M. (2018). Development of high-density genetic map by specific-locus amplified fragment (SLAF) sequencing and identification of QTLs governing flowering and bolting time in Chinese kale. *Int J Agric Biol*, 24(3): 511-516 D
- Liaqat, Z., Maqsood, F., Akhtar, T., Nasir, M.F., Sarwar, S., Fatima, W. 2020. Prevalence of BRCA1/BRCA2 frequent mutations in the Pakistani breast cancer patients. *The Professional Medical Journal*, 27(06):1151-1156.
- Lisec J, Jaeger C, Rashid R, Munir R, Zaidi N: Cancer cell lipid class homeostasis is altered under nutrient-deprivation but stable under hypoxia. *BMC Cancer* 2019, 19(1):501.
- Lone, N M., Riaz, S., Eusaph, AZ., Martineau, AR. 2020. Genotype-independent association between vitamin D deficiency and polycystic ovarian syndrome in Lahore, Pakistan. *Scientific Reports*, 10: 2290 (2020). <https://doi.org/10.1038/s41598-020-59228>.
- Lone, NM., Babar, S., Sultan, S., Malik, S., Nazeer, K, Riaz, S. 2020. Association of the CYP17 and CYP19 gene polymorphisms in women with polycystic ovary syndrome from Punjab, Pakistan. *Gynecological Endocrinology*, 22: 1-6
- Malik, N., Faisal, A., Munir, S., Riaz, S. 2020. Clinical and microbiological profile of urinary tract infection in male diabetic patients. *J Microbiol Exp*. 2020;8(1):30–34.
- Munir R, Lisec J, Swinnen JV, Zaidi N: Lipid metabolism in cancer cells under metabolic stress. *Br J Cancer* 2019, 120(12):1090-1098.



- Munir, S., and Jamil, N. (2020). Polyhydroxyalkanoate (PHA) production in open mixed cultures using waste activated sludge as biomass. *Archives of Microbiology*, 1-7.
- Munir, S., Riaz, S. 2020. Type 2 diabetes and cancer. *Ann Clin Endocrinol Metabol.* 2020; 4: 001-006. DOI: 10.29328/journal.acem.1001012.
- Mushtaq, J. and Batool, R. 2019. Cr(VI) resistant *Bacillus* and *Acinetobacter* isolated from soil of Naran valley. *Soil and Environment* 38(1): 57-65.
- Noreen, A. Rehman, A. Aftab, S. and Shakoori, A.R., 2019. Antiproliferative effect of oxidative stress induced by tellurite in breast carcinoma cells. *Journal of Cancer Research and Practice*, 6: 68-75.
- Noureen, N., Cheema, M. T., Anwar, S., Hasnain, S. and Sajid, I. 2020. PCR-based screening approach: A rapid method to detect the biosynthetic potential of antimicrobials in actinobacterial strains. *Polish Journal of Microbiology*, 69:1-11.
- Qudsia, F., Matti, H. A., Riaz, S. 2020. Pleiotropic Effect of Folate-Cobalamin Combinational Therapy on Diabetes Mellitus. *Ann Nutr Disord & Ther.* 2020; 7(1): 1061.
- Rafique, A., Mahmood, M. S., Ashraf, A., Nasir, S., Kamran, M., Jamil, N., ... and Luqman, M. 2020. Phenotypic and Genotypic Assortment of polyhydroxyalkanoates Producing Bacteria from Rumen Flora of Domesticated Animals in Pakistan. *Pak Vet J*, 40(1): 88-92.
- Riaz, S., Ahmed, M. and Hasnain, S. 2020. Virtual screening of antitumour phytochemical against peroxisome proliferators activated receptor proteins PPARs. *Pakistan Journal of Pharmaceutical Sciences*, 33:379-383.
- Riaz, S., Mehboob, A. 2020. Olive oil tends to lowers cholesterol level in patients suffering from diabetes. *Science Alert. Journal of Biological Sciences* 99154-JBS-ANSI.4.1-20.
- Rida, R. Dilshad and Batool, R. 2020. Antibacterial and antioxidant characteristics of *Cannabis sativa*: a medicinal herb from Gilgit-Baltistan. *Pakistan Journal of Science.* 72(2): 83-90.
- Sadaat R., Jamil, N. (2020). Optimization of Bioplastic Production by *Exiguobacterium* sp. and *Klebsiella* sp. using molasses as carbon source. *Journal of Agriculture and Food* 1(1), 14 – 20.
- Saeed M., Hussain S., Riaz S. 2020. GeneXpert Technology for the diagnosis of HIV associated tuberculosis: Is scale-up worth it? *Open Life Sciences*, 15: 458–465. <https://doi.org/10.1515/biol-2020-0052>.
- Sajjid, A. and Hussain, N. 2019. Insertion/deletion polymorphism of ACE gene and anti-nuclear antibodies association study as diagnostic markers in the Rheumatoid arthritis patients of Pakistan. *RAADS Journal of Pharmacy and pharmaceutical sciences*, 7:11-127.
- Saleem, M., Cheema, M. T., Hassan, A., Shaukat, S., and Sajid, I. 2020. Endophytes and plant extracts of *Carica papaya* linn. exhibit promising antibacterial and in-vitro antitumor activity. *The Journal of Animal & Plant Sciences*, 30(4): 1037-1046.
- Sanaullah, I., Bashir, M., Batool, T., Riaz, S., Ali, D., Sabri, A. N. and Naseem, S. 2020. Tangerine mediated synthesis of Zirconia as potential protective dental coatings. *Materials Science and Engineering: C*:111653.



- Sanaullah, I., Bukhari, B. S., Batool, T., Riaz, S., Khan, H. N., Sabri, A. N. and Naseem, S. 2020. Antibacterial performance of glucose-fructose added MW based zirconia coatings–Possible treatment for bone infection. *Journal of the Mechanical Behavior of Biomedical Materials*, 104:103621.
- Sarwar, A., Latif, Z., Zhang, S., Hao, J., & Bechthold, A. (2019). A Potential Biocontrol Agent *Streptomyces violaceusniger* AC12AB for Managing Potato Common Scab. *Frontiers in Microbiology*, 10. doi.org/10.3389/fmicb.2019.00202
- Sarwar, S., Shabana., Ehsan, F., Tahir, A., Jamil, M., Shahid, S. U., Hasnain, S., Khan, A., Hyder, S.N. Hematological and demographic profile of Pakistani children with isolated ventricular septal defects (VSDs). *Egyptian Journal of Medical Human Genetics*. 21(36): 1-8.
- Shabana, Shahid, S. U., Sarwar, S. The abnormal lipid profile in Obesity and Coronary Heart disease (CHD) in Pakistani subjects. *Lipids in Health and Disease*. 17 (224): 1-7.
- Shabana., Nasir, M. F., Liaqat, Z., Maqsood, F., Akhtar, T., Sarwar, S., Fatima, W. Prevalence of BRCA1/BRCA2 frequent mutations in the Pakistani Breast cancer patients. *The Professional Medical Journal*. 27(6): 1151-1156..
- Shabana., Shahid, S. U., Irfan, U. Genetic Contribution to Congenital Heart Disease (CHD). *Pediatric Cardiology*. 41(1):12-23.
- Shahbaz, H., Ali, B, and Sultan, S. 2019. Growth promoting attributes of chromium (VI) resistant *Bacillus* strains for *Triticum aestivum* L. *The journal of Plant and Animal Sciences*. 29(5): 1424-1432
- Shahzadi, S., Khan, Z., Rehman, A., Nisar, M.A., Hussain, S.Z., Asma, ST., 2019. Isolation and characterization of *Bacillus amyloliquefaciens* 6A: A novel kerosene oil degrading bacterium. *Environmental Technology and Innovation*, 14:100359.
- Shahzadi, S.K., Qadir, M.A., Mahmood, N., Ahmed, M. 2020. Pegylation and cell based bioassay of human interferon- α 2b along its docking studies and effect on plasma half-life. *Protein & Peptide Letters*, 27(3): 219-224
- Sharif, Z. and Hussain, N. 2020. Mutational analysis of GJB2 gene in the diabetic patients. *International journal of biology and biotechnology*, 17: 293-299.
- Sher, S and Rehman, A., 2020. Use of heavy metals resistant bacteria-a strategy for arsenic bioremediation. *Applied Microbiology and Biotechnology*, 103(15): 6007-6021.
- Sher, S., Hussain, S.Z. and Rehman, A., 2020. Multiple resistance mechanisms in *Staphylococcus* sp. strain AS6 under arsenite stress and its potential use in amelioration of wastewater. *Journal of King Saud University-Science*, 32: 3052-3058.
- Sher, S., Hussain, S.Z. and Rehman, A., 2020. Phenotypic and genomic analysis of multiple heavy metal resistant *Micrococcus luteus* strain AS2 isolated from industrial waste water and its potential use in arsenic bioremediation. *Applied Microbiology and Biotechnology* 104(5): 2243-2254.
- Sher, S.F. and Hussain, N. 2019. Incidence Rate of *Plasmodium vivax* and *Plasmodium falciparum* in Kasur-Pakistan. *Austin Immunology*, 4:1-2



- Singh, G. C., Ahmed, M., Zaid, M. and Hasnain, S. 2020. Biochemical, serological, and genetic aspects related to gene HLA-DQB1 and its association with type 1 diabetes mellitus (T1DM). *Molecular Genetics & Genomic Medicine*, 8:e1147.
 - Sohail, R. and Jamil, N., 2020. Isolation of biosurfactant producing bacteria from Potwar oil fields: Effect of non-fossil fuel based carbon sources. *Green Processing and Synthesis*, 9(1), pp.77-86.
 - Sohail, R., Jamil, N., Ali, I., and Munir, S. 2020. Animal fat and glycerol bioconversion to polyhydroxyalkanoate by produced water bacteria. *e-Polymers*, 20(1), 92-102.
 - Ullah, Z., Jabeen, S., Faisal, M., Ahmad, H and Khalid, AN.2019. *Leucoagaricus brunneus* sp. nov. from Khyber Pakhtunkhwa, Pakistan. *Mycotaxon*, 134: 601-611.
 - Wadood, H. Z., Rajasekar, A., Farooq, A., Ting, Y. P. and Sabri, A. N. 2020. Biocorrosion inhibition of Cu70: Ni30 by *Bacillus subtilis* strain S1X and *Pseudomonas aeruginosa* strain ZK biofilms. *Journal of Basic Microbiology*, 60:243-252.
- **Publications:** Book/Edited
- Book Chapters*
- Ameer F, Munir R, and Zaidi N. Invited chapter in: *Lipid Metabolism in Encyclopedia of Cancer* 3rd edition. 2019.
- Book*
- Nazia jamil, Prasun Kumar, Rida Batool 2019. *Soil Microenvironment for Bioremediation and Polymer Production.*, Publisher John Wiley & Sons, Scrivener, USA.(ISBN: 978-1-119-59205-1.
 - Fadipe Temitope, O., Jamil, N., & Lawal Adekunle, K. (2019). Polyhydroxyalkanoates Synthesis by *Bacillus aryabhattai* C48 Isolated from Cassava Dumpsites in Southwestern, Nigeria. *Soil Microenvironment for Bioremediation and Polymer Production*, 271.
 - Khan, N., & Jamil, N. (2019). Bacterial Conversion of Waste Products into Degradable Plastics: An Inexpensive Yet Eco-friendly Approach. In *Environmental Contaminants: Ecological Implications and Management* (pp. 297-309). Springer, Singapore.
 - Khan, R F. and Batool, R. 2019. Role of Cr(VI) resistant *Bacillus megaterium* in phytoremediation. In: *Soil Microenvironment for Bioremediation and Polymer Production*. Nazia Jamil, Prasun Kumar and Rida Batool (Eds). Pp 181–196, Willey-Scrivener Publishing LLC. ISBN: 978-1119592051.
 - Kalsoom, A. and Batool, R. 2020. Biological and non biological approaches for treatment of Cr(VI) in tannery effluent. In: *Emerging Eco-friendly Green Technologies for Wastewater Treatment*. Microorganisms for Sustainability, Bharagava R. (Eds). vol 18, Pp 147-170, Springer, Singapore. ISBN 978-981-15-1389-3.
 - Khan, H.N. & Faisal, M. (2020). Planning and Engineering Strategies of Agricultural Wastes and Their Remediation Strategies. In *Contaminants in Agriculture* (pp. 219-232). Springer, Cham.



- Siddiq, A. and Faisal, M. 2020. Heavy Metals: Source, Toxicity Mechanisms, Health Effects, Nanotoxicology and Their Bioremediation. In: Contaminants in Agriculture Sources, Impacts and Management. Naeem M., Ansari A.A., Gill S.S., (eds), 117-142. Springer. Switzerland
- **Conferences, Seminars and Workshops, etc.**
 - Dr Anjum Nasim Sabri gave Invited speaker talk in, ICPU 2019. Recent innovation in Molecular sciences, organized by Faculty of life sciences, University of the Punjab. Lahore. Nov6-08, 2019.
 - Dr Anjum Nasim Sabri was Member organizing committee and Organizer for one day Bio symposium in the scheduled conference. International conference of ICSSP, 2019, December, 08-12, 2020. organized by centre for solid state physics. University of the Punjab.
 - Dr. Sikander Sultan organized One Day Symposium on Global Challenges of Antimicrobial Resistance and Microbial Art Competition at Department of Microbiology and Molecular Genetics, University of the Punjab, Lahore in collaboration with American Society for Microbiology, October 16, 2019.
 - Dr. Sikander Sultan was a member organizing committee and attended International Conference on “Recent Innovations in Molecular Sciences” organized by the University of the Punjab, Lahore, November, 6-8, 2019.
 - Dr. Sikander Sultan organized a one day interactive workshop on “Diabetes: Protect Your Family” at the Department of Microbiology and Molecular Genetics, University of the Punjab, Lahore in collaboration with Association of Family Physicians Pakistan (PAFP) and Lilly Pharmaceutical Ltd. Pakistan, November 14, 2019.
 - Dr. Sikander Sultan attended and chaired a session in “First National Conference on Entrepreneurship Avenues in Biological Sciences (NCEB 2020)” organized by Department of Biology, Lahore Garrison University, January 8-9, 2020.
 - Dr. Sikander Sultan attended Online Seminar “Covid-19: Current Status of Vaccines and Immunological Variations in Communities” organized by ASM-Punjab University Student Chapter in collaboration with the Department of Microbiology and Molecular Genetics, University of the Punjab, Lahore, Pakistan, September 15, 2020.
 - Dr. Muhammad Faisal participated in training workshop organized by the office of the research innovation and Commercialization (ORIC) University of the Punjab Lahore on March 14 2019.
 - Dr. Muhammad Faisal participated in the one day workshop on How to make University budget in the department of Economics university of the Punjab, Lahore on 20 March 2019.
 - Dr. Muhammad Faisal attended in training workshop on national program for universities awardees in the undergraduate block, university of the Punjab, Lahore on 14-03-2019.



- Dr. Muhammad Faisal attended in the interactive session on QS ranking in the University of the Punjab on 28-08-2019.
- Dr. Zakia Latif member organizing committee and attended international conference on “recent innovations in molecular sciences organized by the University of the Punjab, Lahore from 6th to 8th Nov. 2019.
- Dr. Zakia Latif presented a poster “ multi-factorial effect of plant growth promoting bacteria isolated from bovine manure on turnip growth” in an international conference on “recent innovations in molecular sciences organized by the University of the Punjab, Lahore from 6th to 8th Nov. 2019.
- Dr. Zakia Latif attended and presented a poster “impact of PGPB from bovine manure on vegetable farming for green and sustainable environment” in PSHS international horticulture conference organized by Institute of Agriculture Sciences and SA Group, Agri Tourism development corporation of Pakistan PSHS from Feb. 26-28-2020.
- Dr. Zakia Latif attended Peace Narrative Training organized by University of the Punjab, Lahore and Center for Health and Gender Equality (CHANGE) from 9th Jan, 2020 to 10th Jan, 2020.
- Dr. Nazia Jamil attended 2nd International Conference on Emerging Trends in Earth and Environmental Sciences (ETEES-2020) organized by College of Earth and Environmental Sciences, University of the Punjab, Lahore, from March 4-6, 2020 and presented research work
- Dr. Nazia Jamil attended International Horticultural Conference 2020 (IHC2020) organized by Pakistan Society for Horticultural Science in association with IAGS, University of the Punjab, Lahore, Pakistan from February, 26-28, 2020 and presented research work.
- Dr. Nazia Jamil attended a E- seminar “Assessing the Past and Future of Microbial Ecology: The Foundation of the Biosphere” organized by International Forum on Advanced Environmental Sciences and Technology (iFAST), September 23, 2020.
- Dr. Nazia Jamil attended a E- seminar “Covid-19, Current Status of Vaccines and Immunological Variations in Communities” organized by "ASM-Punjab University Student Chapter" in collaboration with the Department of Microbiology and Molecular Genetics, University of the Punjab, Lahore, Pakistan, September 15, 2020.
- Dr. Nazia Jamil attended PSMAB Series 1 of “International Symposium of Spinal Muscular Atrophy " organized by Pakistan Spinal Muscular Atrophy Bank, July, 26, 2020.
- Dr. Nazia Jamil Chaired a session in the National Conference on “Entrepreneurship Avenues in Biological Sciences” (NCEB) organized by Department of Biology, Lahore Garrison University, January, 8-9, 2020.
- Dr. Nazia Jamil gave Oral presentation in the National Conference on “Entrepreneurship Avenues in Biological Sciences” (NCEB) organized by Department of Biology, Lahore Garrison University, January, 8-9, 2020.



- Dr. Nazia Jamil gave Oral presentation in X International Agriculture Symposium "AGROSYM 2019", 3-6 October 2019, AGROSYM 2019, Jahorina, Bosnia and Herzegovina Title "Potentials of Produced water Bacillus sp. for PHA production and Plant Growth Promotion" .
- Dr. Nazia Jamil attended the 3rd International conference on "Innovative Biological and Public Health Research (IBPS HR-2019) organized by Department of Zoology, GC University Lahore from November 13-14, 2019 and presented research work
- Dr. Abdul Rehman presented research work in 3rd National conference on "Emerging Trends in Bioinformatics and Biosciences" held at Department of Bioinformatics, Hazara University, Mansehra KP, on October 3-5, 2019.
- Dr. Abdul Rehman presented research work in International Conference of Punjab University "Recent Innovations in Molecular Sciences" held at University of the Punjab, Lahore, on November 6-8, 2019.
- Dr. Abdul Rehman presented research work in the 2nd International Conference on Innovative Biological and Public Health Research (IBPS HR-2019) held at the Department of Zoology, GC University, Lahore, on November 13-14, 2019.
- Dr. Abdul Rehman attended "World Fisheries Day 2019" Sustainable Fisheries-Aquaculture and Conservation held at Department of Zoology, GC University, Lahore, on November 22, 2019.
- Dr. Abdul Rehman presented research work at Department of Microbiology, University of Management and Technology, Lahore as Invited Speaker, on December 26, 2019.
- Dr. Basharat Ali Presented research work titled "Halotolerant bacterial diversity of Suaeda fruticosa (L.): Screening for beneficial metabolites and plant growth promotion under salt stress" in Southeast Asian Regional Symposium on Microbial Ecology (SARSME-2020) held in Pokhara, Nepal from 12-14 February, 2020.
- Dr. Basharat Ali Presented research work titled "Agricultural applications of halotolerant bacteria associated with Suaeda fruticosa" in International Conference of Punjab University 2019 (ICPU 2019), held in Lahore, Pakistan from November 6-8th, 2019.
- Dr. Imran Sajid participated in, 1st National Conference on entrepreneurship avenues in biological sciences, Organized by Lahore Garrison University (LGU), Lahore, January 8-9, 2020.
- Dr. Imran Sajid Organized the online seminar entitled "COVID-19: Current status of vaccines and immunological variations in communities" on 15th September 2020, at the forum of Punjab University Student Chapter of American society for Microbiology (ASM).
- Dr. Saba Riaz organized One day symposium "Global Challenges of Antimicrobial Resistance" and "Microbial Art Competition" jointly organized by Department of Microbiology and Molecular Genetics (MMG) and American Society for Microbiology (ASM), at Department of Microbiology and Molecular Genetics (MMG), University of the Punjab, Lahore, Pakistan, October 16, 2019.
- Dr. Saba Riaz attended a workshop on "Diabetes : Protect Your Family" organized by the Department of Microbiology and Molecular Genetics (MMG), University of the Punjab, Lahore, Pakistan, November 14, 2019.



- Dr. Saba Riaz organized one day Seminar and Pre MOU meeting (University of Sultan Zainal Abidin) on “Molecular Diagnostics”, at Department of Microbiology and Molecular Genetics (MMG), University of the Punjab, Lahore, Pakistan, October 18, 2019.
- Dr. Saba Riaz attended a one day seminar on “Recent updates on Tuberculosis and Novel Coronavirus”, at the Department of public Health, University of the Punjab, Lahore, Pakistan, February 18, 2020.
- Dr. Saba Riaz presented poster in “17th Annual Conference of the medical Microbiology and infectious Diseases society of Pakistan” on February 29- March 01, 2020, in collaboration with Shaukat Khanum Memorial Trust (SKMT), The Medical Microbiology & Infectious Diseases Society of Pakistan (MMIDSP) and Pakistan Kidney And Liver Institute (PKLI)
- Dr. Saba Riaz attended one day Hospital conference “Best Practices in Medication Safety” at Lahore Medical and Dental College (LMDC), February 22, 2020.
- Dr. Saba Riaz organized one day seminar “What’s new in the detection of M. tuberculosis infection?” by Adrian Martineau, Queens Mary University of London at Department of Microbiology and Molecular Genetics (MMG), University of the Punjab, Lahore, Pakistan, February 21, 2020.
- Dr. Saba Riaz organized one day seminar on “Introduction to bacterial genome sequencing” by Ms. Samyia Abrar, Superior University Lahore at Department of Microbiology and Molecular Genetics (MMG), University of the Punjab, Lahore, Pakistan, March 05, 2020.
- Dr. Saba Riaz is awarded for Bronze Medal, “Streptococcus Puumariae Vaccine Candidates Designed for Nete Degradation Towards Development of Leest Catgenie, Immunogenic, Environmental Sate and Cost Effective Streptococcus Pneumoniae Vaccine” at Research and Innovation Week 2020, organized by University of Management and Technology (UMT) and Universiti Sultan Zainal Abidin (UniSZA), Malaysia, March 10-11, 2020.
- Dr. Rida Batool attended 2nd International Conference on Emerging Trends in Earth and Environmental Sciences (ETEEES-2020) organized by College of Earth and Environmental Sciences, University of the Punjab, Lahore, from March 4-6, 2020 and presented research work
- Dr. Rida Batool attended International Horticultural Conference 2020 (IHC2020) organized by Pakistan Society for Horticultural Science in association with IAGS, University of the Punjab, Lahore, Pakistan from February, 26-28, 2020 and presented research work.
- Dr. Rida Batool attended the 3rd International conference on “Innovative Biological and Public Health Research (IBPS HR-2019) organized by Department of Zoology, GC University Lahore from November 13-14, 2019 and presented research work.
- Dr. Rida Batool attended a E- seminar “Assessing the Past and Future of Microbial Ecology: The Foundation of the Biosphere” organized by International Forum on Advanced Environmental Sciences and Technology (iFAST), September 23, 2020.



- Dr. Rida Batool attended a E-seminar “Covid-19, Current Status of Vaccines and Immunological Variations in Communities” organized by "ASM-Punjab University Student Chapter" in collaboration with the Department of Microbiology and Molecular Genetics, University of the Punjab, Lahore, Pakistan, September 15, 2020.
- Dr. Rida Batool attended a “E-conference Promoting Applied Sciences in Pakistan – 2020” organized by National University of Science and Technology in collaboration with University of Cambridge and United Arab Emirates University, July 20-21, 2020.
- Dr. Rida Batool attended PSMAB Series 1 of “International Symposium of Spinal Muscular Atrophy ” organized by Pakistan Spinal Muscular Atrophy Bank, July, 26, 2020.
- Dr. Rida Batool Chaired a session in the National Conference on “Entrepreneurship Avenues in Biological Sciences” (NCEB) organized by Department of Biology, Lahore Garrison University, January, 8-9, 2020.
- Dr. Rida Batool attended a lecture on “Ideal Inventions towards translator Applications” by Prof. Mutalib from Faculty of Medicine, Sultan Zainal Abidin University, Malaysia, organized by Department of Microbiology and Molecular Genetics, University of the Punjab, Lahore, October, 22, 2019.
- Dr. Saira Malik attended an online Certificate Course on Diagnosis of COVID-19: Sample Collection, RNA Extraction, PCR, and Data Interpretation 2020 organized by COMSTECH Secretariat, Islamabad in Collaboration with the International Center for Chemical and Biological Sciences (ICCBS) Karachi, Pakistan. August 18-20, 2020.
- Dr. Saira Malik attended an international virtual event on “24 Days of Stem cells” October 2019, organized by Gibco Thermofisher Scientific 5225 Verona Road, Bldg 3 Madison, WI 53711.
- Dr. Nageen Hussain attended Peace Narrative Training organized by University of the Punjab, Lahore and Center for Health and Gender Equality (CHANGE) from 9th Jan, 2020 to 10th Jan, 2020.
- Dr. Nageen Hussain presented in the International symposium on Spinal Muscular atrophy as a keynote speaker in coLLaboration with Malaysian Branded methods on 26th July, 2020
- Dr. Nageen Hussain participated in a one day workshop on Diabetes Protect your family on 14 Nov, 2019, MMG Dept, PU-LHR.
- Dr. Nageen Hussain attended first workshop on infection prevention. Infection prevention week is from 17-20 Feb, 2020 organized by LGH, PGMI, AMC.
- Dr. Nageen Hussain attended workshop series in Medical Education Psychometrics as Reliability and Validity of Assessment on 26 September, 2020
- Dr. Nageen Hussain attended International webinar on COVID-1 Biochemical diagnosis and community responses) at IBBt-UVAS on 21 August 2020
- Dr. Nageen Hussain participated in the online seminar on "Covid-19: Current Status of Vaccines and Immunological Variations in Communities" organized by Punjab University Students Chapter of American Society for Microbiology (ASM) and Department of Microbiology and Molecular Genetics, University of the Punjab, Lahore, Pakistan held on 15 September, 2020



- Dr. Nageen Hussain attended International symposium of metabolic obesity and role of thyroid in collaboration with Malaysian obesity bank on 13 August 2020
- Dr. Nageen Hussain attended International symposium on Spinal Muscular atrophy Series 2 in collaboration with Malaysian Branded methods on 22 August, 2020
- Dr Mehboob Ahmed presented in the First International Conference on Recent innovations in Molecular Sciences, organized by University of the Punjab, Lahore (6-8 November 2019)
- Dr Mehboob Ahmed attended international conference on “Innovative Biological and Public Health Research (IBPS HR-2019)”, organized by Zoology Department, GC University Lahore (13-14 November 2019)
- Dr Mehboob Ahmed presented in “7th International Bahçeşehir University (BAU) Drug Design Congress”, Istanbul, Turkey (December 19-21, 2019)
- Dr Mehboob Ahmed attended “Converting Microbes into Money: Opportunities for Microbiologists” in the National Conference on Entrepreneurship Avenues in Biological Sciences (NCEB) organized by Lahore Garrison University, Lahore January 6-8, 2020.
- Dr. Samreen Riaz organised a one day seminar on Biodiversity of Animals on Biodiversity day on 18 October 2019 in the Zoology Museum University of the Punjab, Lahore.
- Dr. Samreen Riaz participated in International Symposium Halal Food accreditations adding values of lifestyles and economic success on 23-24 October 2019.
- Dr. Samreen Riaz participated in the First International Conference on Recent innovations in Molecular Sciences (ICPU) held on 6-8 November 2019 in the University of the Punjab, Lahore.
- Dr. Samreen Riaz organised and as resource focal person one day seminar on awareness on mental health day on 10 October 2019 from SCAS in the department of Microbiology and Molecular Genetics University of the Punjab, Lahore.
- Dr. Samreen Riaz organised and as resource focal person in the Faculty development Programme in the University of Central Punjab (UCP) Lahore in Life sciences faculty on 17-18 September 2019.
- Dr. Samreen Riaz organised a one day Study tour on 10 November 2019 from the department of Microbiology and Molecular Genetics University of the Punjab, Lahore to Soan Sakesar Valley, District Khushab.
- Dr. Samreen Riaz organised a resource focal person one day Interactive workshop on diabetes day on 14 November 2019 in the department of Microbiology and Molecular Genetics University of the Punjab, Lahore.
- Dr. Samreen Riaz organised one day Miald and Quran Khani on Eid Milad un Nabi day on 20 November 2019 in the department of Microbiology and Molecular Genetics University of the Punjab, Lahore.
- Dr. Samreen Riaz participated in Peace day In the University of the Punjab, Lahore organised by Centre of Health and Gender Equality (CHANGE) and College of Earth and Environmental Sciences (CEES) in the University of the Punjab, Lahore held on 11 December 2019.



- Dr. Samreen Riaz Organized and participated Peace day In the Department of Microbiology & molecular Genetics (MMG) University of the Punjab, Lahore Collaborated with Centre of Health and Gender Equality(CHANGE) and College of Erath and Environmental Sciences (CEES) in the University of the Punjab, Lahore held on 12 December 2019.
- Dr. Samreen Riaz participated in Peace training in the University of the Punjab, Lahore Collaborated with the Centre of Health and Gender Equality(CHANGE) and College of Earth and Environmental Sciences (CEES) in the University of the Punjab, Lahore held on 9-10 January 2020.
- Dr. Samreen Riaz participated and gave a lecture on the World Cancer Day International Conference in the University of the Punjab, Lahore Collaborated with Pharma and Medical groups in the University of the Punjab, Lahore held on 4-5 February 2020.
- Dr. Samreen Riaz participated and presented posters on Cancer Biome Conference in the University of the Punjab, Lahore Collaborated with Cancer Research Society of Pakistan in the University of the Punjab, Lahore held on 13-15 February 2020.
- Dr. Shabana delivered an oral presentation at the International Conference on “Recent Innovations in Molecular Sciences” organized by the Faculty of Life Sciences, University of the Punjab on November 06, 2019.
- Dr. Numan Javed delivered oral talk at online- seminar “Covid-19, Current Status of Vaccines and Immunological Variations in Communities” organized by "ASM-Punjab University Student Chapter" in collaboration with the Department of Microbiology and Molecular Genetics, University of the Punjab, Lahore, Pakistan, September 15, 2020.
- Dr. Numan Javed attended workshop on “General Awareness Training on Good Hygiene Practices on Processing” at Agriculture house Davis Road, Lahore organized by Capacity Building Component, EMFP (Establishment of Model Farms Linked with Improved Supply Chain & Value Addition), Agriculture Department, Government of Punjab held on 27-28 November 2020.
- Dr. Warda Fatima presented in “webinar on cancer awareness” presented “Breast cancer and DNA repair” organized by Department of zoology, University of Okara July 28, 2020)
- Dr. Warda Fatima presented in “Cancerbio conference 2020” presented “Breast cancer risk associated with genes encoding DNA repair MRN complex” organized by cancer research center University of the Punjab, Lahore February 13-15 2020
- Dr. Warda Fatima presented a poster in the International Conference on solid state physics. Organized by CESS Punjab University December 8-12, 2019
- Dr. Warda Fatima presented in “conference on ICPU recent innovations in molecular biology” presented “Association of NRG3 polymorphisms with schizophrenia: case control study from Pakistan” organized by Punjab University November 6-8, 2019
- Ms. Ammara Khalid guest speaker in “webinar on cancer awareness” presented “Acute Lymphoblastic leukemia and In-silico Drug Discovery” organized by Department of zoology, University of Okara July 28, 2020.



- Ms. Maryum Fakhar attended WSPID's webinar on COVID-19 Vaccines December, 9th 2020
 - Ms. Maryum Fakhar attended IPVC webinar on current issues of HPV testing in the era of a covid-19 pandemic: implications for the elimination target December, 3rd 2020.
 - Ms. Maryum Fakhar attended a one day virtual symposium on Coronavirus and diabetes November, 14 th 2020.
 - Ms. Hera Naheed Khan participated in International Conference of Punjab University (ICPU) on Recent trends in Molecular Science, November 6-8th 2019
 - Ms. Hera Naheed Khan presented Poster in International Conference on Solid State Physics, December 8-11th 2019
 - Ms. Ayesha Siddiqi participated in International conference on Recent Innovations in Molecular Sciences, Department of Botany, University of the Punjab, Lahore, Pakistan. November 6-8, 2019.
- **Research Journals**
- Dr. Zakia Latif is life time member of Pakistan Botanical Society
 - Dr. Zakia Latif is life time member of Mycopathological Society of Pakistan
 - Dr. Zakia Latif is life time member of Phytopathological Society of Pakistan
 - Dr. Zakia Latif is member of American Society of Microbiology (ASM)
 - Dr. Zakia Latif is member Editorial Board of Journal “Advancements in Life Sciences” (ALS)
 - Dr. Zakia Latif is permanent member of board evaluator of “Planta Daninha Journal”
 - Dr. Nazia Jamil is associate editor of Journal of Biological Sciences-eISSN: 1812-5719.
 - Dr. Nazia Jamil is the Member Advisory Board, Journal of Agriculture and Food su.edu.pk.
 - Dr. Rida Batool is the Academic Editor for Annual Research & Review in Biology
 - Dr. Saba Riaz member of Asian Journal of Medicine and Biomedicine
 - Dr. Nageen Hussain is a co-Editor of “International Journal of Health Sciences”.
 - Dr. Nageen Hussain is a member of American chemical society.
 - Dr. Nageen Hussain is a member of American Society of Microbiolog
 - Dr. Abdul Rehman is working as an Assistant Editor, Pakistan Journal of Zoology.
 - Dr. Samreen Riaz is a member of American Diabetes society, International diabetes federation and Familycon PAFP.

RESEARCH COLLABORATION

- **Indigenous**
- Dr. Atiq Ambreen, Department of Microbiology, Gulab Devi Chest Hospital Lahore.
 - Dr. Khalid Mehmood, College of Medicine & Dentistry University of Lahore and Citilab and Research Centre Lahore.
 - Dr. Samreen Riaz working with Familycon Association (PAFP), FPGMI, Shaikh Zayed Hospital Lahore. Government College University Lahore, University of Lahore (UOL), Lahore college Women University (LCWU).
 - Dr. Nazia Jamil working with Dr. Bushra Uzair, Department of Bioinformatics and Biotechnology, International Islamic University, Islamabad.



- Dr. Saira Malik working with Dr. Rasheeda Bashir, Department of Biotechnology & Microbiology, Lahore College for Women University, Lahore.
- **Foreign Linkages**
 - TWAS-UNESCO Associateship Scheme at Centres of Excellence in the South. MMG Department is a part of this scheme.
 - Prof. Dr Peter Lindblad, Department of Chemistry Angstrom –Microbial Chemistry, Uppsala University, Sweden.
 - Dr. Nazia Jamil Developed collaboration for PHA research with Dr. Nehal I. Abu-Lail, Associate Professor and Associate Director, Gene and Linda Voiland School of Chemical Engineering and Bioengineering, Washington State University, 118 Dana Hall Spokane Street, Pullman, WA 99164-2710, USA. Phone: 509-335-4961.
 - Dr. Nazia Jamil Developed collaboration for MDR-TB research with Dr Tomasz JAGIELSKI, Department of Applied Microbiology, Faculty of Biology, University of Warsaw, Poland.
 - Dr. Abdul Rehman developed collaboration for Foodborne Pathogens Identification research with Dr Kashaf Junaid, College of Applied Medical Sciences, Jouf University, Sakaka, Al Jouf, Saudi Arabia.
 - Dr. Samreen Riaz working with International Diabetes Federation (IDF) UK, American Diabetes Federation (ADA), USA, JPAG, UK.

DEPARTMENT OF SPORTS SCIENCES & PHYSICAL EDUCATION

○ **Publications**

Sr. No.	Name of Faculty Member	Title of Research Paper	Name of Publishing Journal	Vol.
1	Dr. Muhammad Zafar Iqbal Butt	An Investigation of elite officials perception regarding referee and general self-efficacy in Pakistan	The Spark	05
	Dr. Muhammad Zafar Iqbal Butt, Adnan Abdul Jabar	Effect of sports participation on failure in general life: an exploratory study	Science International	32
2	Dr. Alamgir Khan	Oxidative Stress and Ministerial Dysfunction induced by Oral Contraceptive Pills	<i>Journal of Physical Education Research</i>	7
		Impact of low intensity exercise on ALT & ALP	The Sky Journal	4
3	Dr. Muhammad Tahir Nazeer	Validating of the Urdu version of international physical activity questionnaire (IPAQ-U) among Pakistani population	Indian Journal of Science and Technology	13
		The role of morphological traits on the batting performance of cricket batsmen – a review study	International Journal of Physiotherapy	7
		Perception of the Parents, Physiotherapists and Allied Health	Sir Syed Journal of Education & Social	3



		Professionals about the Role of Physiotherapy in the Rehabilitation of the Children with Cerebral Palsy-A Case Study of District Bhakkar	Research	
		Measuring Physical Fitness among Secondary School Students of ages between 10 to 15 Years	Opcion	36
5	Muhammad Abdul Jabar Adnan	Is nepal capable enough to tackle the covid-19? (short REVIEW)	Science International	32

DEPARTMENT OF ZOOLOGY

○ R&D-An Overview

The Department of Zoology, a discipline of natural sciences, meets the need of trained manpower in a vast basic and interdisciplinary framework concerning animal sciences. The Department has earned international recognition for academic excellence and prominence in various fields of research like Cell biology, Molecular Biology, Physiology, Developmental Biology, Entomology, Microbiology, Palaeontology, Parasitology, Environmental Biotechnology, Toxicology, Clinical Endocrinology, Fisheries etc.

Punjab University Fish Research Farm comprises of an area of 5 acres, including nursery ponds, research ponds and production ponds. Now students are working in various areas of fisheries such as fish disease, fish physiology, fish nutrition etc; taking full benefits of this facility created at Quaid-i-Azam Campus, Lahore. Students from other universities also use the facilities of Fish Research Farm for their studies.

In view of economic importance of honeybee farming, University of the Punjab has embarked upon research and development activities on honeybee from 2004 onwards. Research work is being carried out for improvement in management techniques, quality queen breeding and control of pests and diseases to increase honey yield of colonies. Further infra-structure is being developed for teaching and research facilities.

○ Projects: Completed

Name of Researcher/sponsoring Agency	Title of Research Project with duration	Financial Support (million Rupees)
Prof. Dr. Javed Iqbal Qazi	Bacterial production of detergent compatible amylase using grape fruit peels	Rs. 250000/-
Dr. Farah Rauf Shakoori HEC	Characterization of metal resistant micro organisms and their potential use to remove heavy metals from polluted industrial wastewater and understanding their molecular mechanisms involve in cleaning up the polluted environment	Rs. 4726155/-
Dr. Farah Rauf Shakoori PU	Efficacy of binary combination of Abamectin and Profenofos on energy reserves of a Stored Grain Pest, Trogoderma granarium	Rs. 200000/-



Dr. Abdul Majid Khan	Impact of Introduced Alien Invasive Fishes on Economically Important Native Freshwater Fish Fauna of Pakistan: Evidence from Gut content and Stable Isotope Analysis.” 2018-2019, funded by university of the Punjab, Lahore. (Rs. 150,000).	Rs. 150000/-
Dr. Muhammad Akbar Khan HEC	The Siwalik proboscideans from northern Pakistan	Rs. 3794913/-
Dr. Chaman Ara, PU	Ameliorative effect of vitamin E on zinc oxide nanoparticles induced toxicity on fertility of male and female mice.	Rs. 150000/-
Dr. Abdullah Shakir	Statistical optimization of extraction of chitin and chitosan from fish scales	Rs. 150000/-
Dr. Bushra Nisar, PU	Quantifications of cortisol, Feces for non invasive assessment of stress in wild animals	Rs. 150000/-
Dr. Sadaf Aslam,	New collection of Artioacylla fossil material from Upper Siwaliks of Pakistan	Rs. 125000/-

Newly launched

Name of Researcher/sponsoring Agency	Title of Research Project with duration	Financial Support (million Rupees)
Dr. Hafiz Abdullah Shakir HEC (Co-Principal Investigator)	Molecular identification of fishes from Punjab to assess present biodiversity and promote export of the meat products.	Rs. 4159441/-

○ Publications: Books / Edited

Prof. Dr. Javed Iqbal Qazi

- Batool, N., Qazi, J.I., Aziz, N., Hussain, A. and Shah S.Z.H. 2020. Bio-Methane Production Potential Assays of Organic Waste by Anaerobic Digestion and Co-Digestion. Pakistan Journal of Zoology. 52(3): 971-976.
- Chaudhary, A., Ahmad, Q.A., Akram, A.M., Roshan, S. and Qazi, J.I. 2020. Antagonistic probioticity of novel bacterial isolates from Pakistan against Fish pathogen *Pseudomonas fluorescens* in *Labeo rohita* fingerlings. Pakistan Journal of Zoology. 52(0): Doi: <http://dx.doi.org/10.17582/journal.pjz/2020.52>.
- Shakir, H.A., Anwar, A., Irfan, M., Khan, M., Ali, S. and Qazi, J.I. 2020. Statistical Optimization of Xylanase from *Bacillus licheniformis* Using Banana Peels in Submerged Fermentation. Iran J Sci Technol Trans Sci. 44: 981–991.
- Shakir, H.A., Qazi, J.I., Chaudhry, A.S., Irfan, M., Khan, M., Ali, S. and Mirza, S.S. 2020. Bioaccumulation of Metals in Fishes’ Scales – A Reliable Non-Lethal Assessor of Food Security. Sarhad Journal of Agriculture. 36(1): 95-100.



- Shakir, H.A., Fatima, K., Irfan, M., Khan, M., Ali, S., Saeed, S. and Qazi, J.I. 2020. Citrus limetta (Musambi) Peels: An Efficient Cheap Substrate for Tannase Production in Solid State Fermentation. Pak. J. Biotechnol. 17(2): 53-61.
- Khan, M., Maryam, M., Saleem, M.Z., Shakir, H.A., Qazi, J.I., Li, Y. and Ma, T. 2020. Brevilin A induces ROS-dependent apoptosis and suppresses STAT3 activation by direct binding in human lung cancer cells. Journal of Cancer. 11: 3725-3735.
- Awan, H.M.A., Gondal, I.A. and Qazi, J.I. 2020. The nutritional aspects of animals in selected Urdu Quranic commentaries and Modern Biological Research – an analytical study. Alqalam. 25(1): 15-32.
- Ahmad, Q.A., Manoor, M., Chaudhary, A., Yang, S.T., Shim, H. and Qazi, J.I. 2020. Bench-scale fermentation for second generation ethanol and hydrogen production by *Clostridium thermocellum* DSMZ 1313 from sugarcane bagasse. Environmental Progress & Sustainable Energy. E13516. Doi: <https://doi.org/1002/ep.13516>.
- Khan, M., Zheng, B., Rasul, A., Gu, Z., Li, T., Gao, H., Qazi, J.I., Yang, H. and Ma, T. 2020. Corrigendum to “Pseudolaric Acid B Induced Caspase-Dependent and Caspase-Independent Apoptosis in U87 Glioblastoma Cells”. Evidence-Based Complementary and Alternative Medicine. Article ID: 7939705. pp 1. <https://doi.org/10.2255/2020/7939705>
- Perveen, I., Saleem, Y. and Qazi, J.I. 2020. Determination of heterocyclic amines in ready to eat chicken kabab commercially available from Pakistani Markets. Pakistan J. Zool., 52(6): 2397-2400. Doi: <https://dx.doi.org/10.17582/journal.pjz/20190509050501>
- Ashaq, A., Maqbool., M.F., Maryam, A., Khan, M., Shakir, H.A., Irfan, M., Qazi, J.I., Li, Y. and Ma. T. 2020. Hispidulin: A novel natural compound with therapeutic potential against human cancers. Phytotherapy Research. 1-19. Doi: 10.1002/ptr.6862
- Zahid, B., Qazi, J.I., Zohaib, A., Aslam, A., Akhter, R., Sadia, H., Ain, Q., Sultana, R., Irshad, I. and Alyas, S. 2020. Detection and molecular characterization of virulent Newcastle disease virus in ducks (*Anas platyrhynchos domesticus*). Pakistan J. Zool., 52(1): 1-4.
- Awan, H.M.A., Gondal, I.A. and Qazi, J.I. 2020. Different stages of human embryonic development in the context of Qur’anic Verses and science of embryology. Al-Qalam, 25(2): 86-99.

Dr. Nabila Roohi

- Sadaf Ilyas^{1,*}, Nabila Roohi¹, Samina Ashraf¹ and Sobia Alyas^{1,2} Upregulated Retinol Binding Protein and Transthyretin as Predictive Biomarkers of Gestational Diabetes Mellitus Current Proteomics 17: 180-190
- MAH NOOR KHAN, NABILA ROOHI, BILAL JAVED & MUHAMMAD AMIR IQBAL Thyroid and its regulatory hormone variations in workers of automobile workshops and petrol filling stations Biologia 66:18-20
- Ovine Haemonchosis: a review Tropical Animal Health and Production 53:19 (1-11)



- Majeeda Rasheed, Tanveer Akhtar, Nabila Roohi, Nida Arooj, Mashal Rasheed, Muhammad Farooq and Muhammad Yousaf Elucidating the Genetic Diversity of Prevalent Strains of Peste des Petits Ruminants Virus in Gilgit-Baltistan Province, Pakistan Veterinary Journal 40: 73-76
- Iftikhar Ahmed¹, Nabila Roohi¹ & Ayesha Roohi² Effect of chitosan oligosaccharide and valine on growth, serum hormone levels and meat quality of broilers South African Journal of Animal Sciences 51: 1-10
- Batool, S. Farooq, N. Roohi and A. Mahmud Comparative evaluation of body conformation traits in native aseel chicken fed under different dietary lysine regimens. Journal of Animal and Plant Sciences 31: 416-422
- Alyas, S., Roohi, N., Ahmed, S., Ashraf, S., Ilyas, S. and Ilyas, A. 2020. Lower vitamin D and sex hormone binding globulin levels and higher progesterone, cortisol and t-PA levels in early second trimester are associated with higher risk of developing gestational diabetes mellitus. JBRHA. Journal of Biological Regulators and Homeostatic Agents 34: 301-305

Prof. Dr. Farah Rauf Shakoori

- Riaz, T., Shakoori, F. R., Mansoor, H., Khan, S. and Saleem, M. A., 2019. Efficacy of Mixture of Pesticides on the Mortality and Energy Reserves of a Stored Grain Pest *Trogoderma granarium* Everts. Pakistan J. Zool. 51 (6): 2297-2309.
- Tasneem, F., Shakoori, F. R., Ilyas, M., Shahzad, N., Potekhin, A. and Shakoori, A. R., 2019. Genetic diversity of *Paramecium* species on the basis of multiple loci analysis and ITS secondary structure models. Journal of cellular biochemistry. 1-17. DOI: 10.1002/jcb.29546.
- Feroz, A., Shakoori, F.R., Riaz, T and Shakoori, A.R., 2020. Development of resistance in stored grain pest, *Trogoderma granarium* (Everts) against deltamethrin and its effective control by synergistic toxicity of bifenthrin and chlorpyrifos. Journal of Stored Products Research. 88: 101673.
- Feroz, A., Shakoori, A.R., and Shakoori, F.R., 2020. Effect of Sublethal Doses of Bifenthrin and Chlorpyrifos Administered Alone and in Combinations on Esterases of Stored Grain Pest, *Trogoderma granarium*, .Pakistan J. Zool. 52 (6): 2161-2171.
- Khalid, Z., Yousaf, M. A., Khan, A. T., Shakoori, F. R., Munir, M. and Shakoori, A. R., 2020. Debunking Myths about COVID-19, Paranoid Misconceptions, Recent Developments and its Current Stance. Pakistan J. Zool. 1-11.
- Fatima, M., Syed, M., Zeeshan, R., Shakoori, F. R., Shahzad, N., Ali, M., and Mutahir, Z., 2020. Cytotoxic Effect of MTH1 Gene Silencing in Gemcitabine Resistant Breast Cancer Cells. . Pakistan J. Zool. 52 (6): 2145-2151.
- Riaz, T., Shakoori, F. R., Ali, S.S., and Saleem, M. A., 2020. Phosphine Induced Abnormalities in Carbohydrate Metabolism and Macromolecular Concentrations of *Trogoderma granarium* Everts Over Various Exposure Periods. Pakistan J. Zool. 52. DOI: <http://dx.doi.org/10.17582/journal.pjz/2020.52>



- Ramzan, U., Shakoori, F.R., and Nazeer, S., Mode of action of nanoparticles against insects. ICPU 2019 “Recent innovations in molecular sciences”, 229.
- Ijaz, R., Riaz, T., and Shakoori, F.R., Molecular identification of *Trogoderma granarium* on the basis of 16s mitochondrial DNA. ICPU 2019 “Recent innovations in molecular sciences”, 305.
- Zahra, I., Liaqat, A., and Shakoori, F.R., Identification of a ciliate (*Paramecium* sp) on the basis of histone H4 biomarker and their tolerance to different heavy metals. ICPU 2019 “Recent innovations in molecular sciences”, 318.
- Zafar, A., Shakoori, F.R., Papp, A., Azad, A., Williams, A., Schlesinger, L., Sadee, W., Search for eQTLs as indicators of regulatory variants in immune genes related to TB. ICPU 2019 “Recent innovations in molecular sciences”, 106.

Dr. Abdul Majid Khan

- Rana Manzoor Ahmad, Abdul Majid Khan, Ayesha Iqbal, Amtur Rafeh, Muhammad Tahir Waseem and Muhammad Ameen. 2020. First Report of Enamel Hypoplasia in Extinct Tragulids: A Marker Bearing on Habitat Change. *Pakistan Journal of Zoology*. 52(0).
- Ayesha Iqbal, Ghulam Sarwar, Abdul Majid Khan, Muhammad Tahir Waseem, Ayesha Iqbal, Rana Manzoor Ahmad, Muhammad Ameen. Craniometrical Analysis of Wild Boar (*Sus scrofa*) from Northern Punjab, Pakistan. *Punjab University Journal of Zoology*.
- Abdul Majid Khan, Ayesha Iqbal, Muhammad Tahir Waseem, Rana Manzoor Ahmad and Zulfiqar Ali. 2020. Palaeodietary and Palaeoclimatic Interpretations for Herbivore Fauna from Late Pliocene to Early Pleistocene Siwaliks of Pakistan. *The Journal of Animal and Plant Sciences*. 30 (2).
- Amtur Rafeh, Abdul Majid Khan, Rana Manzoor Ahmad, Mudassar Iqbal, Muhammad Akhtar. Dental Morphology and palaeoecological implications of *Brachypotherium* (Rhinocerotidae) of the Middle Miocene Siwaliks (Pakistan). *Arabian Journal of Geosciences*.

Book Chapters

- Rana Manzoor Ahmad, Abdul Majid Khan, Amtur Rafeh, Ayesha Iqbal and Ghazala Roohi, 2019. Why anthracotheroids had faced family level extinction: enamel hypoplasia an answer to the question. *Proceedings of Arabian Journal of Geosciences*, Ed., Springer. pp. 89-92.
- Abdul Majid Khan, Rana Manzoor Ahmad and Ayesha Iqbal, 2019. Ecological interactions of Miocene to Pleistocene Siwalik bovids, suids and giraffids traced out by enamel hypoplasia analysis. *Proceedings of Arabian Journal of Geosciences*, Ed., Springer. pp 85-87.
- Sadaf Aslam, Abdul Majid Khan, Rana Manzoor Ahmad, Ayesha Iqbal and Muhammad Akhtar, 2019. Systematic study of the new remains of *Propotamochoerus hysundricus* (Suidae, Mammalia) from the late Miocene-early Pliocene Middle Siwaliks (Pakistan). *Proceedings of Arabian Journal of Geosciences*, Ed., Springer. pp 61-64.



- Amtur Rafeh, Abdul Majid Khan, Rana Manzoor Ahmad and Muhammad Akhter, 2019. Dental morphology and palaeoecological implications of *Brachypotherium* (Rhinocerotidae) from Middle Miocene Siwaliks of Pakistan. *Proceedings of Arabian Journal of Geosciences*, Ed., Springer. pp: 57-60.
- Muhammad Tahir Waseem, Abdul Majid Khan, Rana Manzoor Ahmad, Ayesha Iqbal and Muhammad Ameen, 2019. Systematic and Palaeoclimatic investigation of *Sivalihippus* from the Siwaliks of Pakistan. *Proceedings of Arabian Journal of Geosciences*, Ed., Springer 12. Pp: 49-52.
- Ayesha Iqbal, Abdul Majid Khan, Muhammad Akbar Khan and Muhammad Akhter, 2019. Systematics and palaeo-environmental implications of *Hexaprotodon sivalensis* (Hippopotamidae, Mammalia) from the Plio-Pleistocene Upper Siwaliks (Pakistan). *Proceedings of Arabian Journal of Geosciences*, Ed., Springer 12. Pp 65-68

Dr. Muhammad Akbar Khan

- Akbar Khan, M., Dar. F. Y., Flynn, L. J., Abbas, S. G., Babar, M. A., Akhtar, M., Zahra, H. and Amanat, H. 2020. The Upper Siwaliks east of Jhelum, Pakistan: A New Large Quaternary Mammal Assemblage from the Pabbi Hills and Reconnaissance near Bhimbar. *Quaternary International*, 568: 20-35.
- Akbar Khan, M., Kelley, J., Flynn, L.J., Babar, M.A. and Jablonski, N.G. 2020. New fossils of *Mesopithecus* from Hasnot, Pakistan. *Journal of Human Evolution*, 145: 1-11.
- Akbar Khan, M. and Asim, M. 2020. Middle Miocene *Giraffokeryx* (Giraffidae) with Marks of Enamel Hypoplasia from Dhok Bun Amir Khatoon, Punjab, Pakistan. *Arabian Journal of Geosciences*, 13(37): 1-9.
- Asim, M., Aftab, K., Akbar Khan, M., Babar, M.A., Abbas, S.G., Akhtar, M. and Qureshi, A. M. 2020. *Merycopotamus* (Anthracotheriidae: Artiodactyla) from Middle Miocene of Potwar Plateau, Pakistan. *The Journal of Animal and Plant Sciences*, 30(6): 1435-1441.
- Siddiq, M. K., Dar, F. Y., Akbar Khan, M., Babar, M. A., Abbas, S. G., Mudassir, M. and Akhtar M. 2020. Antilopes (Mammalia) from Pabbi Hills of Sardhok, Pakistan. *Pakistan J. Zool.*, 52(1): 263-271.
- Asim, M., Ahmad, Z. Akbar Khan, M., Babar, M. A., Abbas, S. G., Nawaz, M. K., Aftab, K. and Akhtar, M. 2020. *Tragoportax cf. salmontanus* (Bovidae, Mammalia) from the Middle Miocene of Pakistan. *Pakistan J. Zool.*, 52(5): 1817-1823.
- Mahmood, K. and Akbar Khan, M. 2020. Miocene Hyaenids (Hyaenidae; Carnivora) from Siwaliks of Pakistan. *Palaeoworld*, 29: 761-768.

Dr. Chaman Ara

- Hafiza Sadaf Zahra, Asia Iqbal, Sayyeda Hira Hassan, Hafiz Abdullah Shakir, Muhammad Khan, Muhammad Irfan, Chaman Ara, Shaukat Ali. (2019). Epigenetics: A Bridge between Artificial Light at Night and Breast Cancer. *Punjab Univ. J. Zool.*, 34(2): 231-238.
- Chaman Ara, Asmatullah, Sehrish Kanwal, Asma Chaudhary, Ayesha Siddiqua (2020). Haematological and Histopathological Analyses of Levofloxacin Induced Toxicity in Mammals. *Punjab Univ. J. Zool.*, 35(1): 01-06 (2020).



- Chaman Ara, Asmatullah, Zainab Riaz, Memoona, Asma Chaudhary, Shagufta Andleeb. Turmeric Plays Protective Role against Paraben Induced Hepatic and Renal Lesions in Albino Mice. Punjab Univ. J. Zool., 35(1): 07-12.
- S. Zafar, Asmatullah¹ and Chaman Ara, Pomegranate juice ameliorates atenolol toxic effects on embryo Development (2020). The Journal of Animal & Plant Sciences, 30(5): 2020, Page: 1145-1153.
- Chaman Ara^{1*}, Asmatullah¹, Saima Hanif¹, Shagufta Andleeb², Beenish Zahid and Madeeha Arshad. Red Onion Extract Attenuates Aluminum Induced Toxicity in Swiss Albino Mice. Pakistan J. Zool., 52(5), pp 1-4.
- Chaman Ara, Asmatullah, Naila Butt, Shaukat Ali, Farrah Batool, Hafiz Abdullah Shakir, Aqsa Arshad. (2020). Abnormal steroidogenesis, oxidative stress, and reprotoxicity following prepubertal exposure to butylparaben in mice and protective effect of Curcuma longa. Environmental Science and Pollution Research. 28(9):1-11. <https://doi.org/10.1007/s11356-020-10819-8>.
- Shaukat Ali, Saleha Bashir, Shumaila Mumtaz, Hafiz Abdullah Shakir, Chaman Ara, Farooq Ahmad, Hafiz Muhammad Tahir, Mehwish Faheem, Muhammad Irfan, Azeem Masih, Mazhar Ulhaq, Saiqa Andleeb. Evaluation of Cadmium Chloride-Induced Toxicity in Chicks Via Hematological, Biochemical Parameters, and Cadmium Level in Tissues. Biological Trace Element Research. <https://doi.org/10.1007/s12011-020-02453-9>
- Asma Chaudhary, Afia Muhammad Akram, Qurat-ul-Ain Ahmad, Qandeel Minahal, Chaman Ara, Shagufta Andleeb, Mehwish Iqtedar And Qurban Ali. (2020). Rsm-based fermentative ethanologenesi Employing acid hydrolysate watermelon Peels. Plant Cell Biotechnology And Molecular Biology 21(63&64):63-77.

Dr. Hafiz Abdullah Shakir

- Ashaq, A., Maqbool, M.F., Maryam, A., Khan, M., Shakir, H.A., Irfan, M., Qazi, J.I., II, m. and MA, T., 2020. Hispidulin: A novel natural compound with therapeutic potential against human cancers, , Phytotherapy Research 1–19
- Ahmed, R.F., Irfan, M., Shakir, H. A., Khan, M. and Chen, I., 2020. Engineering drought tolerance in plants by modification of transcription and signalling factors, Biotechnology &, DOI: 10.1080/13102818.2020.1805359 Biotechnological Equipment, 34(1): 781-789
- Hassan, S.H., Gul, S., Zahra, H.S., Maryam, A., Shakir, H. A., Khan, M. and Irfan, M., 2020. Alpha Solanine: A Novel Natural Bioactive Molecule with Anticancer Effects in Multiple Human Malignancies, Nutrition and Cancer <https://doi.org/10.1080/01635581.2020.1803932>
- Ashraf, F., Irfan, M., Shakir, H.A., Ali, S. and Khan, M., 2020. An overview of production and industrial exploitation of bacterial laccases. Punjab Univ. J. Zool., 35(1): 147-156.
- Shakir, H.A., Anwar, A., Irfan, M., Khan, M., Ali, S., and Qazi, J.I., 2020. Statistical Optimization of Xylanase from Bacillus licheniformis Using Banana Peels in Submerged Fermentation. Iranian Journal of Science and Technology, Transactions A: Science, 44(4): 981-991



- Ali, S., Awan, Z., Mumtaz, S., Shakir, H. A., Ahmad, F., Haq, M., Tahir, H.M., Awan, M.S., Sharif, S., Irfan, M. and Khan, M.A., 2020. Cardiac toxicity of heavy metals (cadmium and mercury) and pharmacological intervention by vitamin C in rabbits. *Environmental Science and Pollution Research*, 27: 29266–29279
 - Shakir, H.A., Fatima, K., Irfan, M., Khan, M., Ali, S., Saeed, S. and Qazi, J.I., 2020. Citrus limetta (musambi) peels: an efficient cheap substrate for tannase production in solid state fermentation. *Pak. J. Biotechnol.*, 17(2): 53-61
 - Khan, M., Maryam, A., Saleem, M.Z., Shakir, H. A., Qazi, J.I., Ii, Y. and MA, t., 2020. Brevilin A induces ROS-dependent apoptosis and suppresses STAT3 activation by direct binding in human lung cancer cells. *Journal of Cancer*, 11(13): 3725-3735
 - Hussain, S., Ali, S., Mumtaz, S., Shakir, H. A., Ahmad, F., Tahir, H.M., Haq, M., Khan, M.A. and Zahid, M.T., 2020. Dose and duration-dependent toxicological evaluation of lead acetate in chicks. *Environmental Science and Pollution Research*, 27: 15149–15164
 - Mumtaz, S., Ali, S., Khan, R., Shakir, H.A., Tahir, H.M., Mumtaz, S. and Andleeb, S., 2020. Therapeutic role of garlic and vitamins C and E against toxicity induced by lead on various organs. *Environmental Science and Pollution Research*, 27: 8953–8964
 - Shakir, H.A., Qazi, J.I., Chaudhry, A.S., Irfan, M., Khan, M., Ali, S. and Mirza, S., 2020. Bioaccumulation of metals in fishes' scales – A reliable non-lethal assessor of food security. *Sarhad Journal of Agriculture*, 36(1): 95-100.
- **Conferences, Seminars and Workshops, etc.**
- Dr. Farah Rauf Shakoori*
- Attended “3rd International Conference on Innovative Biological and Public Health Research” (IBPHR-2019) organized by Department of Zoology, GC University, Lahore. 13-14 November, 2019.
 - Attended World Fisheries Day 2019, organized by Department of Zoology, Government College University, Lahore. 22nd November, 2019.
 - Organized one day Symposium on Integrated Pest Management for Food Safety on 30th January, 2019 at Department of Zoology, University of the Punjab New Campus Lahore and C-Shine Group Lahore.
- Dr. Abdul Majid Khan*
- Received travel grant Rs-248,000/= from the University of the Punjab, Lahore for presentation of research work at 2nd conference of Arabian Journal of Geosciences held at Hammamet, Tunisia, from 22-25 Nov, 2019
 - Co-Chaired the 39th International Pakistan congress of Zoology from 2-5 March, 2019. Participated with oral presentation in 39th International Pakistan congress of Zoology at from 2-5 March, 2019.
 - Member Admission Committee for MS/M.Phil (In-Service) 2019, BS (4 years) Department of Zoology, University of the Punjab, Lahore, Pakistan.



Dr. Muhammad Akbar Khan

- Khan, M. A., Babar, M. A. and Abbas, S. G., 2020. Late Miocene Suidae from Siwaliks, Northern Pakistan: Biostratigraphy. 13th International Geological Conference, in Jeddah, Saudi Arabia (3-6 March, 2020); oral presentation (No sponsoring agency).

Dr. Hafiz Abdullah Shakir

- Shakir, H.A., Saeed, S., Khan, M. and Qazi, J.I., 2020. Utilization of agri-waste for amylase production by *Bacillus amyloliquefaciens* in submerged fermentation. 5th International Conference on Bioscience and Biotechnology (BioTech-2020) on “Transformation of Bioeconomy via Innovation in Industrial Biotechnology” (February 27th – 28th, 2020) in Kuala Lumpur, Malaysia. Abstract B12 [19] p. 24.

○ **Research Journals**

Prof. Dr. Javed Iqbal Qazi

- Editor, Punjab University Journal of Zoology
- Member, Advisory Board, Pakistan Journal of Zoology
- Member, Editorial Board, Pakistan Journal of Molecular Medicine

RESEARCH COLLABORATION

○ **Indigenous**

Prof. Dr. Javed Iqbal Qazi

- PCSIR Laboratories Lahore
- Punjab Fisheries and Wild Life Department Lahore

Dr. Nabila Roohi

- Collaboration with School of Biological Sciences University of the Punjab Lahore.
- Collaboration with Government College University Lahore.

Dr. Zulfiqar Ali

- Collaboration with Microbiology and Molecular Genetics PU Lahore
- Institute of Chemistry Lahore
- Lahore Zoo

Dr. Abdul Majid Khan

- Desert Lab, University of Arizona, Arizona, Tuscan, USA
- Bio-resource Research Centre Islamabad
- Punjab Fisheries Department Lahore
- Hassan Raza (2017-2019): Craniometrical Analysis of Extant Caprinae from the Punjab, Pakistan.
- Farhan Abid (2017-2019): Comparative Craniometrical Analysis of Boselaphines from Northern Punjab, Pakistan.
- Hannan Abdul Khaliq (2016-2019): Stable Isotope Analysis of Carbon and Nitrogen for Evaluation of Ecosystem Stability of District Rawalpindi Using Biotic and Abiotic Components.



- Asad Iqbal (2017-2019): Single nucleotide polymorphism in tumor necrosis factor alpha (tnf- α) causing preeclampsia in Pakistani women..
- Mehwish Akram (2019): Descriptions of Molars of Dorcabune Anthracotheroids From Late Miocene Siwaliks Of Pakistan.
- Saima Ameer (2019): Systematic Investigation of Hipparion From Dhok Pathan Formation, Jehlum, Punjab, Pakistan.
- Faqeer Hussain (2019): Craniometrical Analysis of Family Camelidae From Punjab, Pakistan. MSc./BS:
- Roha Jabeen (2015-2019): Description of Lower Molars of Dorcabune nagrii from late Miocene Siwaliks of Pakistan
- Noreen Akhtar: (2017-2019): Correlation of Enamel Hypoplasia with the Environmental Stress in Family Bovidae.

Dr. Chaman Ara

- Research collaboration as a thesis co- supervisor at M.Phil level , University of the Education, Lahore.
- Thesis co- supervisor at BS level Gulberg College , Lahore.
- External examiner and research collaboration at University of Sargodha, Sargodha

○ **Foreign Linkages**

Dr. Najma Shaheen

- Dr, Muhammad Iqbal, Director Foot and Mouth Research Centre, Ghazi Road, Lahore

Dr. Nadeem Sheikh

- Memorandum of understanding with Department of Internal Medicine, Division of Gastroenterology, Georg August University Goettingen Germany.

○ **Funding grants for R&D**

Dr. Nadeem Sheikh

- Local Coordinator in Pakistan for EXPERTS II, Exchange academic visitors fellowship by Exchange by Promoting Quality Education, Research and Training in South and South-East Asia) the Georg-August University, Goettingen, Germany
- Local Coordinator in Pakistan for EXPERTS III, Exchange academic visitors fellowship by Exchange by Promoting Quality Education, Research and Training in South and South-East Asia) the Georg-August University, Goettingen, Germany.

Dr. Abdul Majid Khan

- Prof. Dr. Jay Quade: University of Arizona, Department of Geosciences, Tuscan, Arizona, USA

Dr. Muhammad Akbar Khan

- Dr. George Iliopoulos (University of Patras, Greece) for 'Erasmus + International Credit Mobility KA 107'.



- Dr. Lawrence John Flynn (Peabody Museum of Archaeology and Ethnology. Harvard University, Cambridge, MA 02138, USA).
- Dr. Abdul Ghaffar (Department of Meteorology, COMSATS Institute of Information Technology, Islamabad, Pakistan).
- Dr. Zaheer Ahmad (Department of Zoology, GC University Faisalabad, Pakistan).
- Dr. Arifa Batool (Wildlife & Fisheries and Zoology Department, GC University Faisalabad).

INSTITUTE OF AGRICULTURAL SCIENCES

○ **R&D – An Overview**

Institute of Agricultural Sciences has a strong scientific force in the field that is focusing on Research and Development in Agriculture. The Institute got a US patent for Single Step Liquefaction and Saccharification of Corn Starch Using an Acidophilic, Calcium Independent and Hyperthermophilic Pullulanase. Research on producing virus resistant cotton plants is moving to next step of commercialization. First Fungal Culture bank of Pakistan that is working under Institute of Agricultural Sciences; Punjab University is providing bacterial and fungal cultures for research purposes on demand at nominal charges. They are also offering facilities regarding identification of any microbial culture. Herbal Heritage Garden is working on pilot scale production of plant essential oils and Aleo Vera gel, juices and food items. Using effluent of pulp and paper industry, 11 fungal species were tested for laccase production. Among these *Ganoderma lucidum* most efficiently produced this commercially important enzyme with a molecular weight of 68 KDa. In the next step we are looking forward for the enzyme production at lab scale. Now the institute has started working on application of nanotechnology in agriculture. Multi-institutional research has been started to work on green synthesis of nanoparticles and their use in plant disease management.

○ **Projects: Completed**

Dr. M. Saleem Haider, Professor & Director

- 2018-19: As Principal Investigator entitled “Awareness of climate smart agriculture practices among the agri communities for sustainable environment development (under Social Integration Outreach Program (SIOP) of HEC)” of Rs.1.0 million by jointly funded by HEC and University of the Punjab, Lahore.

Dr. Muhammad Nasir Subhani, Associate Professor

- 2019-20: As Principal Investigator entitled “Functional characterization of Mastrevirus promoter – An alternative of CaMV 35S Promoter” of Rs.0.250 million by University of the Punjab, Lahore.

Dr. Uzma Bashir, Associate Professor

- 2019-2020. Evaluation of Fungicidal activity of some weed extracts against *Fusarium solani*, a wilt causing pathogen. Funded by University of the Punjab, Lahore

Dr. Amna Shoaib, Associate Professor

- Molecular studies based on full genome sequence of pepper infecting Pakistani *Chilli veinal mottle virus* isolates



Dr. Shazia Shafique, Associate Professor

- Detection of aflatoxins and their exploitive interaction with beneficial bacteria. Institute of Agricultural Sciences, University of the Punjab, Lahore, Pakistan, 2019-2020 of Rs.0.150 million by University of the Punjab, Lahore.

Dr. Muhammad Ashfaq, Assistant Professor

- Morphological and pathogenic characterization of discolored resistant rice (Rs: 150000) 2017-18.

Dr. Muhammad Bilal Chattha, Assistant Professor

- Completed a research project as Principal Investigator, entitled “Evaluation of Different Planting Geometries and Fertigation Levels under Surface and Subsurface Drip Irrigation System for Improving Water Use Efficiency under Various Crops.” worth PKR.2.212 million during 2017-19 funded by Water Management Training and Research Institute, Punjab, Lahore.

Dr. Shahbaz Ahmad, Associate Professor

- As Principal Investigator entitled “An Integrated diagnostic setup for the Molecular Characterization and Sustainable Management of Bactocera fruit flies (Tephritidae: Diptera) of Rs.0.15 million by University of the Punjab, Lahore.

Dr. Shinawar Waseem Ali, Assistant Professor

- 2019-20: As Principal Investigator entitled “Optimization of The Production Technology for The Preparation of *Moringa Oleifera* Based Fermented Dairy Product” of Rs.0.150 million by University of the Punjab, Lahore.

Dr. Hafiz Azhar Ali Khan, Assistant Professor

- Genetic characterization of pyrethroid resistance in house flies, *Musca domestica* L., (Diptera: Muscidae), 2019. Awarded by University of the Punjab, Lahore, Pakistan

Dr. Sajid Ali, Assistant Professor

- Principal Investigator of the research project entitled ‘Accumulation and remobilization of nitrogen (N) and Phosphorus (P) in wheat/maize and wheat/soybean strip cropping system under nutrients stress. 0.15 Million funded by University of the Punjab, Lahore for the fiscal year 2020-21 (Ongoing).

○ **Project:** Newly launched

Dr. M. Saleem Haider, Professor & Director

- 2018-19: As Principal Investigator entitled “Evaluation of biochar produced from indigenous organic waste in priming plant defense and growth stimulation” of Rs.0.250 million by University of the Punjab, Lahore.

Dr. Tehmina Anjum, Professor

- Principal investigator in one year (2019-2020) project entitled “Identification of potential elicitors from indigenous plant growth promoting bacteria to induce resistance in tomato against Fusarium wilt”. Grant = 2,50,000/Rs by PU.



Dr. Arshad Javaid Associate Professor

- 2019-20: Identification of Potential Herbicidal Constituents in *Penicillium* spp. against Parthenium Weed (0.2 million) From PU

Dr. Muhammad Ashfaq, Assistant Professor

- As Principal Investigator entitled “Abiotic stress tolerance in rice” (Rs: 150000) 2019-20 by University of the Punjab, Lahore.

Dr. M. Bilal Chattha, Associate Professor

- Conducting a research project as Principal Investigator, entitled “Performance of organic and inorganic substances to induce salt stress tolerance in maize under agro climatic condition of Lahore” worth PKR.0.15 million during 2019-20 funded by University of the Punjab, Lahore.

○ Publications

Dr. M. Saleem Haider, Professor & Director

- Kalsoom, R., Haider, M.S. and Chohan, S. (2020). Phytochemical analysis and antifungal activity of some medicinal plants against *Alternaria* species isolated from onion. *The Journal of Animal and Plant Sciences*, 30(2): 1-7. ((Impact factor: 0.529)
- Manzoor, M., Ahmad, J.N., Giblin-Davis, R.M., Javed, N. and Haider, M.S. (2020). Effects of entomopathogenic nematodes and/or fungus on the red palm weevil, *Rhynchophorus ferrugineus* (Curculionidae: Coleoptera). *Nematology*, 0: 1-15
- Manzoor, M., Ahmad, J.N., Samina, J.N., Ahmad, Naqvi, S.A., Umar, U., Rasheed, R. and Haider, M.S. (2020). Population dynamics, abundance and infestation of the red palm weevil, *Rhynchophorus ferrugineus* (Olivier) in different geographical regions of date palm in Pakistan. *Pakistan Journal of Agricultural Sciences*, 57(2): 381-391
- Anwar, W., Nawaz, K., Javed, M.A., Akhter, A., Shahid A.A., Haider, M.S., Ur Rehman, M.Z. and Ali, S. (2020). Characterization of fungal flora associated with sternorrhyncha insects of cotton plants. *Biologia*. <https://doi.org/10.2478/s11756-020-00549-0>
- Ashfaq, M. Ali, M., Shahzad, M., Anjum, M.A., Haider, M.S. and Mubashar, U. (2019). Efficacy assessment of bio-pesticides against rice leaf folder, *Cnaphalocrocis medinalis* (Guenee) (Lepidoptera: Pyralidae) using DNA quantification method. *International Journal of Biology & Biotechnology*, 16(2): 391-399.
- Anwar, W., Javed, M.A., Shahid, A.A., Nawaz, K., Akhter, A., Ur-Rehman, M.Z., Hameed, U., Iftikhar, S. and Haider, M.S. (2019). Chitinase genes from *Metarhizium anisopliae* for the control of whitefly in cotton. *Royal Society Open Science*, 6: 1-12
- Ashfaq, M., Anjum, M.A., Haider, M.S., Ali, M., Mubashar, U., Aslam, H.M.U. and Sajjad, M. (2020). Association of *Cladosporium cladosporioides* brown leaf spot of Lady Palm in Pakistan. *The Journal of Animal & Plant Sciences*, 30(2): 371-376

Dr. Tehmina Anjum, Professor

- Naseem Hassan, Hina Ashraf, Tehmina Anjum, Waheed Akram. 2020. Phyto-synthesized silver nanoparticles using leaves extracts of *Morus alba* and *Aegle marmelos* inhibited fusarium wilt and charcoal rot in tomato. *International Journal of Agriculture and Biology*. M.S. NO: IJAB-20-0819



- Tehmina Anjum, Wajiha Irum, Mazhar Iqbal, Abdul Ghaffar, Mateen Abbas. 2020. Identification of degradation products of aflatoxin B1 and B2 resulting after their biodegradation by aqueous extracts of *Acacia nilotica*. World Mycotoxin Journal. <https://doi.org/10.3920/WMJ2018.2411>
- Yongxin Tao, Xinhua Quan, Ibatsam Khokhar, Tehmina Anjum, Hanbing Song, Irum Mukhtar. 2020. First report of *Pseudopezalotiopsis theae* causing leaf spot of date palm (*Phoenix dactylifera*) in China. Plant Disease. 10.1590/s0100-83582020380100052
- Guihua Li, Juxian Guo, Wenlong Luo, Tehmina Anjum, Waheed Akram, Aqeel Ahmad, Basharat Ali, Muhammad Adnan, Mei Fu. 2020. Development of high density genetic map by specific locus amplified fragment (SLAF) sequencing and identification of QTLs governing flowering and bolting time in Chinese Kale. International Journal of Agriculture and Biology. 24:511-516. DOI: 10.17957/IJAB/15.1466
- Tehmina Anjum, Rasheda Jabeen, Steve Adkins. 2020. Exploring Parthenium weed biotypes by chloroplast DNA barcode Analysis. Planta Daninha. 38:e020191623 10.1590/s0100-83582020380100052
- Hina Ashraf, Tehmina Anjum, Saira Riaz and Shahzad Naseem. 2020. Microwave assisted green synthesis and characterization of silver nanoparticles using *Melia azedarach* for the management of Fusarium wilt in tomato. Frontiers in Microbiology. doi: <https://doi.org/10.3389/fmicb.2020.00238>
- Waheed Akram, Guihua Li, Aqeel Ahmad, Tehmina Anjum, Basharat Ali, Juxian Guo, Wenlong Luo, Tingquan Wu, Dasen Xie, and Fu Mei. 2020. *Pseudocercospora exilis* causing leaf spot disease on *Brassica rapa* subsp. *parachinensis* in China. Plant Disease. 104(6): 1861-1861. <https://doi.org/10.1094/PDIS-01-20-0165-PDN>
- Waheed Akram, Hina Aslam, Sajid Rasheed Ahmad, Tehmina Anjum, Nasim Ahmad Yasin, Waheed Ullah Khan, Aqeel Ahmad, Juxian Guo, Tingquan Wu, Wenlong Luo, Guihua Li. 2019. *Bacillus megaterium* strain A12 ameliorates salinity stress in tomato plants through multiple mechanisms. Journal of Plant Interactions. 14(1): 506 - 518.
- Waheed Akram, Guihua Li, Aqeel Ahmad, Tehmina Anjum, Basharat Ali, Juxian Guo, Wenlong Tingquan Wu, Dasen Xie, Qing Wang. 2019. *Alternaria brassicicola* causing leaf spot disease on Broccoli in China. Plant Disease. <https://doi.org/10.1094/PDIS-05-19-1013-PDN>
- Waheed Akram, Guihua Li, Aqeel Ahmad, Tehmina Anjum, Basharat Ali, Wenlong Luo, Juxian Guo, Dasen Xie, Qing Wang. 2019. Leaf spot disease caused by *Alternaria arborescens*, *A. tenuissima*, and *A. infectoria* on *Brassica rapa* L subsp. *parachinensis* in China. Plant Disease. <https://doi.org/10.1094/PDIS-05-19-0951-PDN>
- Huma Adrees, Muhammad Saleem Haider, Tehmina Anjum, Waheed Akram. 2019. Inducing systemic resistance in cotton plants against charcoal root rot pathogen using indigenous rhizospheric bacterial strains and chemical elicitors. Crop protection. 115: 75 - 83



- Shafiq ur Rehman, Wajeeha Afzal, Tehmina Anjum, Hassan Javed Choudhry, Sajid Rashid Ahmad and Mehmood Aslam. 2019. Screening and evaluation of indigenous halo-tolerant microbes for salt stress alleviation in celery (*Apium graveolens*). *Soil and Environment*. 38(1): 42 – 47.

Dr. Uzma Bashir, Associate Professor

- Muhammad Ashfaq, Mubarak A. Anjum, M. Saleem. Haider, Muhammad. Ali, Uzma Bashir, U. Mubashar and Muhammad Sajjad. 2020. Association of *Cladosporium cladosporioides* brown leaf spot of lady palm in Pakistan. *Journal of animal and plant sciences*. 30 (2), 371-376
- Muhammad Atif, Uzma Bashir, Muhammad Tariq Manzoor, Nida Rafaqat, Muhammad Abdullah, 2019. Diversity, Mutation and Recombination analysis of chilli infecting Geminiviruses from Indian subcontinent. *Microbial Pathogenesis*. (Under review).
- Arshad Javaid, Iqra H Khan, Khajista Jabeen, Uzma Bashir. 2019. Evaluation of Mycochemical Profile of *Alternaria Japonica* through Gc-Ms Analysis. *Pakistan Journal of Phytopathology* 31 (2), 171-175

Dr. Arshad Javaid, Associate Professor

- Shoaib A, Nisar Z, Nafisa, Javaid A, Khurshid S, Javed S (2019). Necrotropic fungus *Macrophomina phaseolina* tolerates chromium stress through regulating antioxidant enzymes and genes expression. *Environmental Science and Pollution Research* 26(12): 12446-12458.
- Naqvi SF, Javaid A, Qureshi MZ (2019). Evaluation of antifungal potential of leaf extract of *Chenopodium murale* against *Fusarium oxysporum* f. sp. *lycopersici*. *Planta Daninha* 37: e019199050.
- Akhtar R, Javaid A, Qureshi MZ (2020). Efficacy of shoot extracts of *Sisymbrium irio* against *Fusarium oxysporum* f. sp. *cepae*. *Planta Daninha* 38: e020200961. [IF 0.460]
- Banaras S, Javaid A, Shoaib A (2020). Non-chemical control of charcoal rot of urdbean by *Sonchus oleraceus* application. *Planta Daninha* 38: e020216088.
- Javaid A, Afzal R. Shoaib A (2020). Biological management of southern blight of chili by *Penicillium oxalicum* and leaves of *Eucalyptus citriodora*. *International Journal of Agriculture and Biology* 23(1): 93-102.
- Khan IH, Javaid A (2020). Comparative antifungal potential of stem extracts of four quinoa varieties against *Macrophomina phaseolina*. *International Journal of Agriculture and Biology* 24(3): 441-446.
- Shoaib A, Ali H, Javaid A, Awan ZA (2020). Contending charcoal rot disease of mungbean by employing biocontrol *Ochrobactrum ciceri* and zinc. *Physiology and Molecular Biology of Plants* 26(7): 1385-1397.
- Khan IH, Javaid A, Al-Taie AH, Ahmed D (2020). Use of neem leaves as soil amendment for the control of collar rot disease of chickpea. *Egyptian Journal of Biological Pest Control* 30: 98.



- Ali A, Javaid A, Shoaib A, Khan IH (2020). Effect of soil amendment with *Chenopodium album* dry biomass and two *Trichoderma* species on growth of chickpea var. Noor 2009 in *Sclerotium rolfsii* contaminated soil. *Egyptian Journal of Biological Pest Control* 30: 102.
- Javaid A, Munir R, Khan IH, Shoaib A (2020). Control of the chickpea blight, *Ascochyta rabiei*, with the weed plant, *Withania somnifera*. *Egyptian Journal of Biological Pest Control* 30: 114.
- Javaid A, Qudsia H, Shoaib A (2019). Effect of *Senna occidentalis* dry biomass and *Penicillium oxalicum* on growth of mash bean under *Macrophomina phaseolina* stress. *Pakistan Journal of Weed Science Research* 25(4): 269-278.
- Shoaib A, Shezad A, Javaid A, Akhtar S, Awan ZA (2019). Evaluation of biocontrol strategies and its synergistic interaction permitting the chickpea plant to trigger the appropriate defense responses against *Sclerotium rolfsii*. *Biologia (Pakistan)*, 65(2): 329-334.
- Khan IH, Javaid A, Ahmed D, Khan U (2020). Identification of volatile constituents of ethyl acetate fraction of *Chenopodium quinoa* roots extract by GC-MS. *International Journal of Biology and Biotechnology* 17(1): 17-21.
- Javaid A, Khan IH (2020). Potential use of *Coronopus didymus* in parthenium management. *Pakistan Journal of Weed Science Research* 26(1): 37-45.
- Javaid N, Shah MH, Khan IH, Javaid A, Waleed SM (2020). Herbicidal activity of *Ageratum conyzoides* against parthenium. *Pakistan Journal of Weed Science Research* 26(2):137-146.
- Javaid S, Shah MH, Khan IH, Javaid A, Waleed SM (2020). Using extracts of lamb's quarters weed for control of *Alternaria alternata*. *Pakistan Journal of Weed Science Research* 26(2): 147-155.
- Rafiq M, Shoaib A, Javaid A, (2020). GC-MS analysis of *Sonchus asper* root extract for identification of fungicidal compounds against *Rhizoctonia solani*. *Pakistan Journal of Weed Science Research* 26(3): 267-274.
- Javaid A, Ali A, Khan IH, Shoaib A (2020). *Chenopodium album* mitigates adverse effects of *Sclerotium rolfsii* on chickpea var. Bakhar-2011. *Pakistan Journal of Weed Science Research* 26(3): 275-285.
- Shad N, Ejaz R, Jamal A, Khan IH, Javaid A (2019). Isolation and identification of seed associated fungi of wheat. *Mycopath*, 17(2): 59-62.
- Shad N, Ahmed M, Jamal A, Khan IH, Javaid A (2019). Air-borne mycoflora from Lahore to Sahiwal. *Mycopath*, 17(2): 89-92.
- Javaid A, Amin M, Khan IH (2020). Identification of phyto-components of *Syzygium cumini* fruit. *International Journal of Biology and Biotechnology* 17(3): 497-501.

Dr. Amna Shoaib, Associate Professor

- S. Akhtar and Shoaib A. (2020). The counter defence system of antioxidants in Coelomycetous emerging human and plant pathogenic fungus *Macrophomina phaseolina* against copper toxicity. *Environmental Science and Pollution Research*, 27: 597-606.



- Nafisa, Shoaib A., Iqbal J. and Khan KA. (2020). Evaluation of phenotypic, physiological and biochemical attributes connected with resistance in tomato against *Alternaria solani*. *Acta Physiologiae Plantarum*, 42, Article number: 88. <https://link.springer.com/article/10.1007/s11738-020-03076-2>.
- Shoaib, Ali H., Javaid A. and Awan ZA. (2020). Contending charcoal rot disease of mungbean by employing biocontrol *Ochrobactrum ciceri* and zinc. *Physiology and Molecular Biology of the Plant*, 26(7):1385–1397.
- Javaid, Afzal R. and Shoaib A. (2020). Biological management of southern blight of chili by *Penicillium oxalicum* and leaves of *Eucalyptus citriodora*. *International Journal of Agriculture and Biology*, 23(1): 93-102.
- S. Banaras, Javaid A. and Shoaib A. (2020). Non-chemical control of charcoal rot of urdbean by *Sonchus oleraceus* application. *Planta Daninha*, 38: e020216088.
- Ali, Javaid A., Shoaib A. and Haider I. (2020). Effect of soil amendment with *Chenopodium album* dry biomass and two *Trichoderma* species on growth of chickpea var. Noor 2009 in *Sclerotium rolfsii* contaminated soil. *Egyptian Journal of Biological Pest Control*, 30: 102.
- Javaid, Munir R., Khan IH. and Shoaib A. (2020). Control of the chickpea blight, *Ascochyta rabiei* with the weed plant, *Withania somnifera*. *Egyptian Journal of Biological Pest Control*, 30: 114.
- S. Siddique, Shoaib A., Khan SN. and Mohy-ud-din A. (2020). Screening and histopathological characterization of sunflower germplasm for resistance to *Macrophomina phaseolina*. *Mycologia*. doi.org/10.1080/00275514.2020.1810516.
- Shoaib, Nisar Z., Nafisa, Javaid A., Khurshid S. and Javed S. (2019). Necrotrophic fungus *Macrophomina phaseolina* tolerates chromium stress through regulating antioxidant enzymes and genes expression. *Environmental Science and Pollution Research*, 26(12): 12446-12458.
- Shoaib, Awan ZA. and Khan KA. (2019). Intervention of antagonistic bacteria as potential inducer of disease resistance in tomato to mitigate early blight. *Scientia Horticulturae*, 252 (27): 20-28.
- ZA. Awan, Shoaib A. and Khan KA. (2019). Crosstalk of Zn in combination with other fertilizers underpins interactive effects and induces resistance in tomato plant against early blight disease. *Plant Pathology Journal*, 35(4): 330-340.
- Javaid, Ali A., Khan IH. and Shoaib A. (2020). *Chenopodium album* mitigates adverse effects of *Sclerotium rolfsii* on chickpea var. Bakhar-2011. *Pakistan Journal of Weed Science Research*, 26(3): 275-285.
- M. Rafiq, Shoaib A. and Javaid A. (2020). GC-MS analysis of *Sonchus asper* root extract for identification of fungicidal compounds against *Rhizoctonia solani*. *Pakistan Journal of Weed Science*, 26(3): 267-274.
- D-E Shahwar, Hussain K., Bukhari NI., Iqbal Z., Shoaib A., Shahzadi N. and Rafique F. (2020). Antibacterial activity of organic extracts of root bark of *Ziziphusjube Gaertn* (L.) var. *hysudrica Edgew.* *International Journal of Biosciences*. 16 (1): 251-260.



Dr. Shazia Shafique, Associate Professor

- Shazia Shafique, Sobiya Shafique, Sonia Sahar and Naureen Akhtar, 2020. First Report of *Exserohilum rostratum* (Drechsler) K.J. Leonard & Suggs. inducing Leaf Spot of *Solanum melongena* in Pakistan. *International Journal of Agricultural and biology*, 24(4): 751-754.
- Muhammad Shakeel, Salik Nawaz, Yasar Saleem, Shazia Shafique, Ateeq Tahir and Muhammad Riaz, 2020. Broccoli: Introduction and Adoption Constraints in Pakistan. *Sarhad Journal of Agriculture*, 36(2): 526-532.
- Shazia Shafique, Sobiya Shafique and Sonia Sahar, 2020. *Thymus serpyllum* – A Novel Biocontrol Agent against Leaf Spot Pathogens of *Solanum melongena*. *Pakistan Journal of Weed Science Research*, 26(4): 469-479.
- Sobiya Shafique, Shazia Shafique, Mariam Zameer and Muhammad Asif, 2019. Plant defense system activated in chili plants by using extracts from *Eucalyptus citriodora*. *Biocontrol Science*, 24(3): 137-144.
- Shazia Shafique, Sobiya Shafique, Alina Javed, Naureen Akhtar, and Shumaila Bibi, 2019. Analysis of Antagonistic Potential of Secondary Metabolites and Organic Fractions of Trichoderma Species against *Alternaria Alternata*. *Biocontrol Science*, 24(2): 81 – 88.

Dr. Muhammad Ashfaq, Assistant Professor

- Wahab, U., Ashfaq, M., Sajjad, M., Shaheen, S., Sadique, R., Ali, M and Khan, F., 2020. Effects of different plant growth regulators on in vitro growth of Aloe Vera L. *Bangladesh Journal of Botany*. 49(1): 159-162 (IF:0.214)
- Ashfaq, M., Anjum, M.A., Haider, M.S., Ali, M., Mubashar, U., Bashir, U., H.M.U Aslam, H.M.U and Sajjad, M., 2020. Association of *Cladosporium cladosporioides* Brown Leaf Spot of Ladies Palm in Pakistan. *Journal of Animal and Plant Sciences*. 30(3): 371-376
- Shaheen S, Fateh R, Younis S, Harun N, Jaffer M, Hussain K, Ashfaq M, Siddique R, Mukhtar H and Khan F. 2020. Light and scanning electron microscopic characterization of thirty endemic Fabaceae species of district Lahore, Pakistan. *Microsc Res Tech*. 83:1507–1529. <https://doi.org/10.1002/jemt.23545>
- Muhammad Ashfaq, Iqra Saleem, Muhammad Saleem Haider, Muhammad Ali, Javed Iqbal Watto, Muhammad Shafiq, Shahbaz Ahmad, Muhammad Asrar, Abdul Rasheed, Umair Ali, Muhammad Sajjad and Urooj Mubashar. 2020. SSR Based Screening of Rice Germplasm Against Blast Disease and Its GIS Monitoring in Punjab, Pakistan. *INT. J. Biol. Biotech.*, 17 (3): 571-581, 2020.
- Shabnum Shaheen, Mehreen Jalal, Muhammad Ashfaq, Muhammad Ali, Bilal Rasool, Javed Iqbal Watto, Muhammad Asrar, Umair Ali, Muhammad Sajjad, Mehwish Jaffer, Nida Haroon and Farah Khan. 2020. Evaluation of Nutraceutical Potential of Five Selected Wild Edible Plants of Lahore, Pakistan. *Pak. J. Agri. Sci.*, Vol. 57(6),1557-1563; 2020



- Umair Ali, Muhammad Ashfaq, Muhammad Shafiq, Muhammad Ali, Shabnum Shaheen, Bakhtawar Mubashar, Mubarak Ali Anjum and Muhammad Aqeel. 2020. Effects of Organic and Chemical Fertilizers on Growth and Yield Attributes of Chili (*Capsicum Annuum* L.). *Int. J. Biol. Biotech.*, 17 (4): 731-738, 2020.

Dr. Rashid Mahmood, Assistant Professor

- Ali, A., ul Haq, T., Mahmood, R., Jaan, M., & Abbas, M. N. (2019). Stimulating the anti-oxidative role and wheat growth improvement through silicon under salt stress. *Silicon*, 11(5), 2403-2406
- Javaid, A., Anjum, F., Mahmood, R., & Akhtar, N. (2019). Relationship between soil chemical characteristics and soil-borne fungi in tomato tunnels of Punjab, Pakistan. *Bangladesh journal of botany*, 48(3), 409-416
- Shakeel, S., Mahmood, R., Fatima, A., & Ali, S. (2020). Application of Response Surface Methodology to Optimize Ammonia Volatilization Determination by Enclosure Method. *Communications in Soil Science and Plant Analysis*, 51(15), 2038-2044
- Riaz, M., Mahmood, R., Khan, S. N., Haider, M. S., & Ramzan, S. (2020). Onion tip burn: Significance, and response to amount and form of nitrogen. *Scientia Horticulturae*, 261, 108773

Dr. Muhammad Bilal Chattha, Assistant Professor

- Hassan, M.U., M.U. Chattha, L. Barbanti, M.B. Chattha, A. Mahmood, I. Khan, M. Nawaz. 2019. Combined cultivar and harvest time to enhance biomass and methane yield in sorghum under warm dry conditions in Pakistan. *Industrial Crops and Products*. 132. 84-91
- Hassan, M.U., M.U. Chattha, M.B. Chattha, A. Mahmood and S.T. Sahi. 2019. Chemical composition and methane yield of sorghum as influenced by planting methods and cultivars. *The Journal of Animal and Plant Sciences*. 29(1):251-259
- Chattha, M.U., M.U. Hassan, L. Barbanti, M.B. Chattha, I. Khan, M. Usman, A. Ali, M. Nawaz. 2019. Composted sugarcane by-product press mud cake supports wheat growth and improves soil properties. *International Journal of Plant Production*. 13(3):241-249
- Ahmad, S., M.W. Alam, S. Majeed, M. Bilal, M. Shafiq, M. Khurshid, M. Sarwar, T. Shafeeq, S. Salman, and Q. Ali. 2019. Study of morphological and qualitative plant traits against the infestation of *Chilo infuscatellus* L. (Pyralidae, Lepidoptera). *Applied Ecology and Environmental Research*. 17(5):7057-7065.
- Sarwar, M., S. Ahmad, M.B. Chattha, M.U. Chattha, M.W. Alam, S. Anjum, T. Shafeeq, M.K. Naseem, and A. Mannan. 2019. Assessment of growth and productivity of Cucumber (*Cucumis sativus* L.) genotypes under salt stress regime. *Applied Ecology and Environmental Research*. 17(5):10793-10806.
- Chattha, M.U., M.U. Hassan, I. Khan, M.B. Chattha, M. Aamer, M. Nawaz, S.A. Anjum, U. Ashraf, and M. Kharal. 2020. Impact of planting methods on biomass production, chemical composition and methane yield of sorghum cultivars. *Pakistan Journal of Agricultural Sciences*, 57(1): 43-51.



- Zamir SI, IU Haq, MU Chattha, MU Hassan, I Khan, MB Chattha, N Saeed, MM Iqbal, MA Ayub, A Rehman, 2020. Harvesting at milking stage along with urea and molasses addition improved the quality and fermentation characteristics of corn silage. *Intl J Agric Biol.* 23:253–258
- Iqbal, Z., M.B. Chattha and M.N. Subhani. 2020. Impact of different levels of nitrogen by soil application and fertigation through drip irrigation on growth, yield and quality of sugarcane. *Pakistan Journal of Agricultural Sciences.* 57(3): 829-835.
- Hassan, M.U., M.U. Chattha, I. Khan, M.B. Chattha, L. Barbanti, M. Aamer, M. M. Iqbal, M. Nawaz, A. Mahmood, A. Ali and M.T. Aslam. 2020. Heat stress in cultivated plants: nature, impact, mechanisms, and mitigation strategies - A review, *Plant Biosystems An International Journal Dealing with all Aspects of Plant Biology*, DOI: 10.1080/11263504.2020.1727987
- Ali, S., M.U. Chattha, M.U. Hassan, I. Khan, M.B. Chattha, B. Iqbal, M. Rehman, M. Nawaz and M.Z. Amin. 2020. Growth, Biomass Production, and Yield Potential of Quinoa (*Chenopodium quinoa* Willd.) as Affected by Planting Techniques Under Irrigated Conditions. *Int. J. Plant Prod.* 14:427-441(2020). <https://doi.org/10.1007/s42106-020-00094-5> (I.F. 0.961)
- Hasnain, Z., S. Zafar, U. Shafqat, S. Perveen, N. Iqbal, S.A. Qaisrani, M.B. Chattha and S. Mumtaz. 2020. Antibacterial activity of eco-friendly zinc nanoparticles prepared from leaf extract of *Mentha piperita* L. *Pak. J. Pharm. Sci.*, 33(5) Special: 2413-2416.

Dr. Shinawar Waseem Ali, Assistant Professor

- Niranjan Koirala, Chiran Dhakal, Nabin Narayan Munankarmi, Shinawar Waseem Ali, Aneela Hameed, Natalia Martins, Javad Sharifi-Rad, Muhammad Imran, Atta Muhammad Arif, Muhammad Shakeel Hanif, Ram Chandra Basnyat and Bahare Salehi. *Vitex negundo* Linn.: phytochemical composition, nutritional analysis, and antioxidant and antimicrobial activity. *Cellular and Molecular Biology*, 66: 4 (2020) 1-7, <http://dx.doi.org/10.14715/cmb/2020.66.4.1>,
- Soane Kaline Morais Chaves, Muhammad Inam Afzal, Muhammad Torequul Islam, Aneela Hameed, Ana Maria Oliveira Ferreira Da Mata, Lidiane Da Silva Ara'ujo, Shinawar Waseem Ali, Hercilia Maria Lins Rolim, Maria das Graccas Freire De Medeiros, Emmanoel Vilaca Costa, Bahare Salehi, Natalia Martins, Atta Muhammad Arif, Muhammad Imran, Javad Sharifi-Rad, Ana Amelia de Carvalho Melo-Cavalcante and Chistiane Mendes Feitosa. Palmatine antioxidant and anti-acetylcholinesterase activities: A pre-clinical assessment. *Cellular and Molecular Biology*, 66: 4 (2020) 54-59, <http://dx.doi.org/10.14715/cmb/2020.66.4.9>,
- Raizza Eveline E. Pinheiro, Thiago P. Chaves, Eveny S. Melo, Sultan Ali, Shinawar Waseem Ali, Muhammad Umer, Gil Sander P. Gama, Dalliane N. S. Lira, Joao Sammy N. Souza, Maria Jose dos S. Soares, Andr'e de Souza Santos, Rinaldo Aparecido Mota, Priscilla Ramos Freitas, Muhammad Inam Afzal, Bahare Salehi, Henrique Douglas Melo



- Coutinho, William N. Setzer, Muhammad Imran and Javad Sharifi-Rad. Modulatory-antibiotic activity of the essential oil from *Eucalyptus citriodora* against MDR bacterial strains. *Cellular and Molecular Biology*, 66: 4 (2020) 60-64, <http://dx.doi.org/10.14715/cmb/2020.66.4.10>.
- Muhammad Torequl Islam, Natalia Martins, Muhammad Imran, Aneela Hameed, Shinawar Waseem Ali, Bahare Salehi, Ishtiaque Ahmad, Ahmad Hussain and Javad Sharifi-Rad. Anxiolytic-like effects of *Moringa oleifera* in Swiss mice. *Cellular and Molecular Biology*, 66: 4 (2020) 73-77, <http://dx.doi.org/10.14715/cmb/2020.66.4.12>
 - Mohale K. Cecilia, Assress H. Abrha, Nyoni Hlengilizwe, Araya T. Hintsa, Muhammad Umer, Mudau F. Nixwell, Shinawar Waseem Ali, Muhammad Inam Afzal, Miquel Martorell, Bahare Salehi, William N. Setzer, Muhammad Umair Sattar, Muhammad Imran and Javad Sharifi-Rad. Untargeted profiling of field cultivated bush tea (*Athrixia phylicoides* DC.) based on metabolite analysis. *Cellular and Molecular Biology*, 66: 4 (2020) 104-109, <http://dx.doi.org/10.14715/cmb/2020.66.4.14>
 - Jacqueline C. Andrade, Antonia T.L. Dos Santos, Ana R.P. Da Silva, Maria A. Freitas, Muhammad Inam Afzal, Maria I.P. Gonccalo, Victor J. A. Fonseca, Maria do S. Costa, Joara N. P. Carneiro, Erlanio O. Sousa, Yedda M. L. S. De Matos, Thiago S. De Freitas, Amanda K. De Sousa, Maria F. B. Morais-Braga, Henrique D. M. Coutinho, Shinawar Waseem Ali, Bahare Salehi, Muhammad Imran, Muhammad Umer, Ehsan Ul-Haque, William N. Setzer and Javad Sharifi-Rad. Phytochemical characterization of the *Ziziphus joazeiro* Mart. metabolites by UPLC-QTOF and antifungal activity evaluation. *Cellular and Molecular Biology*, 66:4 (2020) 127-132, <http://dx.doi.org/10.14715/cmb/2020.66.4.17>.
 - Muhammad Akhlaq and Shinawar Waseem Ali. Effect of storage, initial grain moisture and fumigation on rheological quality of wheat stored in hot steppe climate. *Cereal Chemistry*, (2020) doi.org/10.1002/cche.10307.
 - Asad Nawaz, Shinawar Waseem Ali, Sana Irshad, Fatima Irshad, Aftab Ahmed, Zainab Sharmeen and Imran Khan. Effect of peeling and unpeeling on yield, chemical structure, morphology and pasting properties of starch extracted from three diverse potato cultivars. *Int'l Journal of Food Science & Technology*, 55:6 (2020) 2344-2351 doi: 10.1111/ijfs.14412.
 - Ayesha Murtaza, Aamir Iqbal, Krystian Marszałek, Muhammad Amjed Iqbal, Shinawar Waseem Ali, Xiaoyun Xu, Siyi Pan and Wanfeng Hu. Enzymatic, Phyto-, and Physicochemical Evaluation of Apple Juice under High-Pressure Carbon Dioxide and Thermal Processing. *Foods*, 9:2 (2020) 243; 1-14, doi:10.3390/foods9020243.
 - Aftab Ahmed, Shinawar Waseem Ali, Ali Imran, Muhammad Afzaal, Muhammad Sajid Arshad, Muhammad Nadeem, Zahid Mubeen and Ali Ikram. Formulation of date pit oil-based edible wax coating for extending the storage stability of guava fruit. *Journal of Food Processing & Preservation*, 44:2 (2020) e143336; 1-10. doi: 10.1111/jfpp.14336



Dr. Shahbaz Ahmad, Assistant Professor

- A. Hanan, T. Nazir, A. Basit, S. Ahmad and Q. Dewen, 2020. Potential of lecanicillium lecanii (*verticillium lecanii*) as microbial control agent of green peach aphid (*myzus persicae sulzer*). Pakistan Journal of Zoology. Vol. 52(01):131-137.
- Ahmad, S., M, Arslan, Biological control potential against Fall armyworm Spodoptera frugiperda (Noctuidae: Lepidoptera) in Pakistan. International Organization for Biological Control (IOBC), IOBC-Global Newsletter Issue 107 June 2020.
- M.W Alam, A. Rehman, A. Malik, M. S. Haider, M. Amin, S. Ahmad, M. Sarwar, H. Rosli and M.L Gleason, 2019. Dynamics of Stem End Rot Disease of Mango Fruit and Its Management. Pakistan Journal of Agricultural Sciences. Vol.57(1):63-71 DOI: 1021162/PAKJAS/19.8336
- M, Ashfaq, I, Saleem, MS Haider, M, Ali, J, Iqbal Watto, M, Shafiq, S, Ahmad, M, Asrar, A Rasheed and Urooj Mubashar, 2020. Ssr Based Screening of Rice Germplasm against Blast Disease and Its GIS Monitoring in Punjab, Pakistan. International Journal of Biology and Biotechnology, 17 (3): 571-581, 2020.^[11]_{SEP}
- Firza Shafique, Qurban Ali, Ghulam Yasin, Shahbaz Ahmad, Tahir Shafeeq, Ahmad Zaheer and Arif Malik, 2020. Heavy Metal Toxicity and It's Physio- Biochemical Effects on Maize (Zea Mays L.). Plant Cell Biotechnology and Molecular Biology 21(45&46):94-102; 2020.
- Firza Shafique, Qurban Ali, Ghulam Yasin, Shahbaz Ahmad, Tahir Shafeeq, Ahmad Zaheer and Arif Malik, 2020. Response of Maize Genotypes to Manganese and Chromium Application. Plant Cell Biotechnology and Molecular Biology 21(53&54):85-95; 2020.
- Firza Shafique, Qurban Ali, Ghulam Yasin, Shahbaz Ahmad, Tahir Shafeeq, Ahmad Zaheer and Arif Malik, 2020. Genetic Association Among Morphological Traits of Zea Mays Under Heavy Metal Stress. Plant Cell Biotechnology and Molecular Biology 21(51&52):40-46; 2020.
- Shabaz Ahmad, Hera Z, Hanif Ms, Syed Ah, 2020. Effects of Carbosulfan on the Biology of Bird Cherry Oat Aphid. Biological and Clinical Sciences Research Journal ISSN: 2708-2261.

Dr. Hafiz Azhar Ali Khan, Assistant Professor

- Khan HAA. (2020). Side effects of insecticidal usage in rice farming system on the non-target house fly *Musca domestica* in Punjab, Pakistan. *Chemosphere* 241: 125056.
- Khan HAA. (2020). Resistance to insecticides and synergism by enzyme inhibitors in *Aedes albopictus* from Punjab, Pakistan. *Scientific Reports* (Nature Publishing Group). 10: 21034
- Khan HAA. (2020). Susceptibility to indoxacarb and synergism by enzyme inhibitors in laboratory and field strains of five major stored product insects in Pakistan. *Chemosphere* 257: 127167.



- Khan HAA, Akram W, and Ali S. (2020). Activities of select enzymes involved in insecticide resistance in spinosad-resistant and-susceptible strains of *Musca domestica* (Diptera: Muscidae). *Journal of Medical Entomology* 57: 620-622.
- Khan HAA. (2019). Characterization of permethrin resistance in a *Musca domestica* strain: resistance development, cross-resistance potential and realized heritability. *Pest Management Science* 75: 2969-2974
- Khan HAA, Akram W. (2019). Resistance status to deltamethrin, permethrin and temephos along with preliminary resistance mechanism in *Aedes aegypti* (Diptera: Culicidae) from Punjab, Pakistan. *Journal of Medical Entomology* 56: 1304-1311

Dr. Muhammad Shafiq, Assistant Professor

- Muhammad Shafiq, Mukhtar Ahmad, Ayesha Nisar, Muhammad Tariq Manzoor, Arslan Abid, Sehrish Mushtaq, Adeel Riaz, Muhammad Ilyas, Waseem Sarwar, Muhammad Shah Nawaz-ul-Rehman, Saleem Haider, Ayesha Younus, Muhammad Mubin (2019) Molecular characterization and phylogenetic analysis of tomato leaf curl Palampur virus, a bipartite begomovirus, associated with *Cucumis sativus* L. in Pakistan, 3 Biotech (2019) 9:204
- Muhammad Usman Ashraf, Kanzal Iman, Talha Shaf, Muhammad Farhan Khalid, Hafiz Muhammad Salman, Momal Rafi, Nida Javaid, Rashad Hussain, Fayyaz Ahmad, Syed Shahzad ul Hussan, Shaper Mirza, Muhammad Shafiq, Samia Afzal, Sadia Hamera, Saima Anwar, Romena Qazi, Muhammad Idrees, Sohail A. Qureshi, Safee Ullah Chaudhary (2019) Evolution of Efficacious Pan-Genotypic HCV Therapies, Medicinal Research Review Med Res Rev. 2019;39:1091–1136.
- Sajid Ali, A. Fatima, S. Khalid, F. Saeed, M. Shafiq, S. Afzaal, M. S. Haider, W. Tariq and J. Khan. 2019. Virus titer as a disease resistance indicator in Tomato. *Bangladesh J. Bot.* 48 (3): 609-617
- M. I. Qamar, M. U. Ghanzafar, M. F. Abbas, R. Zainab, S. Andleeb, M. Shafiq, and S. Mushtaq (2019) First Report of *Macrophomina phaseolina* Causing Crown and Root Rot on Strawberry in Sargodha, Pakistan; Plant Disease Published Online:19 Mar 2019 <https://doi.org/10.1094/PDIS-10-18-1876-PDN>
- Mushtaq, S., M. Shafiq, T. Ashraf, M. S. Haider, M. Ashfaq* and M. Ali. 2019. Characterization of Plant Growth Promoting Activities of Bacterial Endophytes and their Antibacterial Potential Isolated from Citrus. *J. Ani. Pla. Sci.* 29 (4): 978-991
- Ahmad, S. Alam, M. W, Majeed, S. Bilal, M. Shafiq, M, Khurshid, M. Sarwar, M. Shafeeq, T. Salman, S, Ali, Q. (2019) A study of morphological and qualitative plant traits against the infestation of *Chilo infuscatellus* L. (Pyralidae, Lepidoptera), *Applied Ecology and Environmental Research* 17(3): 7057-7065
- Sehrish Mushtaq, Muhammad Shafiq, Ummad Hussain, aFreeha Ali, Amna Ali, Faiza Khan, Muhammad Asim, Muhammad S. Haider (2019) Incidence of *Pantoea agglomerans* associated with Barnyard grass (*Echinochloa crusgalli* L.) in Pakistan *Pak. J. Phytopathol.*, Vol. 31 (01) 2019. 119-122



Mr. Moazzam Anees, Lecturar

- Moazzam Anees, Ali Zain Awan, Muhammad Tariq Manzoor, Sajid Ali, Shinawar Waseem Ali, Muhammad Rizwan Tariq and Muhammad Shafiq. Post-harvest treatments improve the physicochemical characteristics of guava (*Psidium guajava*) fruit cv. Surahi. IHC 2020 Proceedings.

○ **Books/Edited**

Dr. Rashid Mahmood, Assistant Professor

- Riaz, M., Arif, M. S., Ashraf, M. A., Mahmood, R., Yasmeen, T., Shakoar, M. B., ... & Fahad, S. (2019). A Comprehensive Review on Rice Responses and Tolerance to Salt Stress. In *Advances in Rice Research for Abiotic Stress Tolerance* (pp. 133-158). Woodhead Publishing.
- Riaz F, Riaz M, Arif MS, Yasmeen T, Ashraf MA, Adil M, Ali S, Mahmood R, Rizwan M, Hussain Q, Zia A, Ali MA, Arif M, Fahad S. (2020) Alternative and Non-conventional Soil and Crop Management Strategies for Increasing Water Use Efficiency BT - Environment, Climate, Plant and Vegetation Growth. In: Fahad S., Hasanuzzaman M., Alam M., Ullah H., Saeed M., Ali Khan I., Adnan M. (eds) Springer International Publishing, Cham, pp 323–338

Dr. Muhammad Shafiq, Assistant Professor (Books chapter)

- Muhammad Shafiq , Fasiha Qurashi , Sehrish Mushtaq , Mujahid Hussain , Amir Hameed and Muhammad Saleem Haider, (2020) DNA plant viruses: biochemistry, replication, and molecular genetics; Applied Plant Virology. DOI: <https://doi.org/10.1016/B978-0-12-818654-1.00013-X> © 2020 Elsevier Inc. All rights reserved

Dr. Sajid Ali, Assistant Professor (Books chapter)

- Muhammad Aamir Iqbal, Sajid Ali, Ayman El Sabagh, Zahoor Ahmad and Muzammil H. Siddiqui. 2020. Changing Climate and Advances on Weeds Utilization as Forage: Provisions, Nutritional Quality and Implications. DOI: <http://dx.doi.org/10.5772/intechopen.91386>

○ **Conferences, Seminars and Workshops, etc.**

Prof. Dr. Muhammad Saleem Haider, Professor & Director

Organized

- Muhammad Saleem Haider (2020). Three day International Horticulture Conference 2020, February 26-28, 2020 at IAGS.
- Muhammad Saleem Haider (2019). Organized two-days International Symposium on “Halal Accreditation: Adding Value of Lifestyle & Economic Success”, at IAGS on 23-24 October, 2019.
- Muhammad Saleem Haider (2019). Organized 3-days International Conference on “Pharmaceutical and Biological Sciences (IC-PBS-2019), at IAGS, on 15-17 January, 2019.

Participated

- Participated in the International Conference on “Recent Innovation in Molecular Sciences”, held on November 6-8, 2019 in the University of the Punjab, Lahore



Dr. Tehmina Anjum, Professor

- Oral presentation on “Use of indigenous Bacilli to induce systemic resistance in tomato against Fusarium wilt” in Humboldt Kolleg International Conference on Microbes for Sustainable Agriculture. Organized by Formans Christian College University, Lahore on March 25 – 28th, 2019.
- Oral presentation on “Detoxification of Aflatoxin B1 and B2 using plant phytochemicals” in International Conference of Punjab University 2019 on Recent innovations in molecular sciences. Organized by University of the Punjab, Lahore on November 6 – 8th, 2019.
- Presented oral paper entitled “Bio-detoxification potential of seed extract of Trachyspermum ammi against aflatoxins B1 and B2 in stored maize” in the 2019 International Conference on Agricultural and Food Science (3rd ICAFS), December 8 – 11, 2019. Kuala Lumpur, Malaysia.
- Oral presentation on “Utilization of bioactive phytochemicals in postharvest technology of horticultural crops” in International Horticulture Conference: Revolutionizing horticulture for secured future. Organized by Institute of Agricultural Sciences; University of the Punjab, Lahore on February 26 – 28th, 2020.
- Oral presentation on “Reducing input of pesticides through inducing resistance in crops” as Key Note Speaker in International Conference on Smart Plantation: An ultimate solution to climate change. Organized by Department of Botany; Lahore College For Women University, Lahore on March 2 – 4th, 2020.
- Oral presentation on “Reducing pesticide application in controlling soil borne fungal pathogens through induced systemic resistance” as Key Note Speaker in 2nd International Conference on “Emerging Trends in Earth and Environmental Sciences (ETEES 2020). Organized by Center of Earth and Environmental Sciences; University of the Punjab, Lahore on March 4 – 6th, 2020.

Dr. Uzma Bashir, Associate Professor

- International conference on “Recent innovations in molecular sciences”. November 6-8, 2019. University of the Punjab, Lahore. Pakistan.
- International conference on smart plantation, an ultimate solution to climate change. ICSP-2020. March 2-4 2020. Lahore College for Women University. Lahore. Pakistan.

Dr. Arshad Javaid, Associate Professor

- Javaid A, Rafiq M, Shoaib A (2019). GC-MS analysis of Eucalyptus camaldulensis leaf extract for identification of antifungal constituents against Sclerotium rolfsii. In: 1st International and 3rd National Conference on Bioactivity of Phytochemicals: Using Plants to Improve Life, November 26-27, 2019, University of Lahore, Pakistan.
- Javaid A, Khan IH (2020). Comparative antifungal potential of stem extracts of four quinoa varieties against Macrophomina phaseolina. In: The 1st International Conference on Advances and Challenges in Basic and Social Sciences in Contemporary Research, February 12-13, Government Post-Graduate Islamia College (Women), Cooper Road, Lahore, Pakistan.



- Javaid A, Khan IH (2020). First report of curvularia lunata causing postharvest fruit rot of banana in Pakistan. In: International Horticultural Conference. February 26-28, 2020, Punjab University Lahore, Pakistan.
- Javaid A, Khan IH (2020). Screening of Aspergillus spp. for their biocontrol potential against Macrophomina phaseolina. In: International Conference of Smart Plantation, an Ultimate Solution to Climate Change, March 2-4, 2020, Lahore College for Women University Lahore, Pakistan.

Dr. Shazia Shafique, Associate Professor

- International Conference on Smart Plantation “An ultimate solution to climate change” 2020. March 02-04, 2020. Lahore College for Women University, Lahore, Pakistan.
- International Conference of Punjab University 2019. Recent Innovations in Molecular Sciences, November 06-08, 2019. University of the Punjab, Lahore, Pakistan.

Dr. Amna Shoaib, Associate Professor

- Presented paper in the International Conference on Smart Plantation “An Ultimate Solution to Climate Change” (ICSP 2020). 2-4 march, 2020. Lahore College for Women University, Lahore. PAKISTAN.
- Presented paper in the International Horticulture Conference, 26-28, February 2020. Institute of Agricultural Sciences, University of the Punjab, Lahore. PAKISTAN
- Presented paper in the 1st International and 3rd National Conference on the Biodiversity of Phytochemicals: Using Plants to Improve Life, 26-27th November, 2019. Institute of Molecular Biology and Biotechnology, University of Lahore, Off Raiwind Road Campus, PAKISTAN.
- Presented paper in the Recent Innovations in Molecular Sciences” 06-08, November, 2019, at the University of the Punjab (Quaid-e-Azam Campus), Lahore. University of the Punjab. PAKISTAN

Dr. Muhammad Ashfaq, Assistant Professor

- Attended International Horticulture Conference as Organizer from 26 to 28 February, 2020 at Institute of Agricultural Sciences, University of the Punjab, Lahore.
- Attended International Conference “Agri Tech Innovation and Food Industrial Chain” co-hosted federation and China Economic Net on 18th August, 2020.
- This is a Participation Certificate for Dr. Muhammad Ashfaq, from University of the Punjab, for his attendance of an international online conference hold in Wuhan, China on September 2nd, 2020. This international meeting hold by Wuhan University was the Kick-off Meeting for Honglian Type Hybrid Rice Joint Research Center Construction between Wuhan University (China)- University of the Punjab (Pakistan).

Dr. Muhammad Bilal Chattha, Assistant Professor

- Participated in International Seminar/Workshop on Vermi-Fertilizer, A Potential Source of Organic and Sustainable Agriculture in Pakistan held on November 18-19, 2019 at University of Agriculture, Faisalabad.



- Participated in International Conference on Agriculture (5th China Agro Chemical (CAC) Pakistan Summit) organized by Lahore Chamber of Commerce & Industries held on November 20, 2019.
- Participated and presented poster in International Conference on Recent Innovations in Molecular Sciences held on November 6-8, 2019 at University of the Punjab, Lahore "Isolation and Identification of Penicillium ulaiense Causing Whisker Mold, A New Postharvest Threat to Apple in Pakistan".

Dr. Shinawar Waseem Ali, Assistant Professor

- Shinawar Waseem Ali and Asad Munir. Formulation and Quality Evaluation of Flavored Aloe Vera Ready to Serve (RTS) Drink. International Horticulture Conference, 26-28 February 2020, SA Gardens Lahore and University of the Punjab, Lahore, Pakistan.
- Shinawar Waseem Ali and Mahrukh Ilyas. Storage stability and quality attributes of aloe-vera juice, "30th All Pakistan Food Science Conference and Food & Nutrition Expo-2019, 10-11 December 2019, University of Lahore, Pakistan.
- Shakir Manzoor, Shinawar Waseem Ali and Naeem Ahmed. Effect of Aloe Vera Based Batter Coating on Potato Sticks Quality and oil uptake in deep fat frying, "30th All Pakistan Food Science Conference and Food & Nutrition Expo-2019, 10-11 December 2019, University of Lahore, Pakistan.
- Mateen Ahmed and Shinawar Waseem Ali. Chemical composition and health aspects with recent applications in the food industry, "30th All Pakistan Food Science Conference and Food & Nutrition Expo-2019, 10-11 December 2019, University of Lahore, Pakistan.
- Shinawar Waseem Ali and Zunair Zaheer. Physico-chemical and microbiological analysis of bottled drinking water, International Conference of Punjab University (ICPU-2019) on Recent Innovations in Molecular Sciences, 06-08 November 2019, University of the Punjab, Lahore, Pakistan.

Dr. Shahbaz Ahmad, Assistant Professor

- Shahbaz Ahmad., "Response of indigenous plant extracts against jassid *Amrasca bigutulla bigutulla* (Cicadellidae Homoptera) in okra" present on International Congress of Entomology, Organized by Entomological Society of America (ESA) and Entomological Society of St. Louis USA from November 17- 20, 2019. (Oral Presentation)
- Shahbaz Ahmad, "Biology and Management of Dengue Mosquito (*Aedes aegypti*)" International Conference & Workshop Dengue Infection in Pakistan and Its and Its Control Strategies, organized by Department of Animal Sciences, Quade-i-Azam University Islamabad On 17-18 December 2019.
- Online Agriculture Research Management (ARM) Basics of ARM software, Protocol creation and trail amangement during September 2020.

Dr. Sajid Ali, Assistant Professor

- Sajid Ali, A. Fatima, S. Afzaal, H. A. A. Khan, M. Anees, and M. T. Manzoor. 2020. Medicinal value of neglected herbs: famers' perspective. In Abstracts, International Horticulture Conference (IHC 2020): Revolutionizing Horticulture for Secured Future. Institute of Agricultural Sciences, University of the Punjab, Lahore- Pakistan. pp 33. February 26-28.



- Muhammad Riaz, M. Adnan, I. Rehman, S. Ali, R. Mahmood, M. S. Arif, and Tahira Yasmeen. 2020. biochar and mineral fertilizer enhanced radish (*Raphanus raphanistrum*) biomass, soil organic carbon and available nutrients in alkaline calcareous soil. In Abstracts, International Horticulture Conference (IHC 2020): Revolutionizing Horticulture for Secured Future. Institute of Agricultural Sciences, University of the Punjab, Lahore- Pakistan. pp 40. February 26-28.
- Moazzam Anees, A. Z. Awan, M. T. Manzoor, S. Ali, S. W. Ali, M. R. Tariq, and M. Shafiq. 2020. Post-harvest treatments improve the physicochemical characteristics of guava (*psidium guajava*) fruit cv. surahi. In Abstracts, International Horticulture Conference (IHC 2020): Revolutionizing Horticulture for Secured Future. Institute of Agricultural Sciences, University of the Punjab, Lahore- Pakistan. pp 03. February 26-28.
- Faiza Shafique Khan, C. Hu, M. Shafiq, S. Ali, and M. Anees. 2020. MYC2 transcription factor mediates by jasmonates signaling pathway stimulate the tolerance mechanism against the abiotic stress in plants. In Abstracts, International Horticulture Conference (IHC 2020): Revolutionizing Horticulture for Secured Future. Institute of Agricultural Sciences, University of the Punjab, Lahore- Pakistan. pp 64. February 26-28.
- Sajid Ali, A. Fatima and S. Afzaal. 2019. Anti-bacterial potential of herbal polyphenols: management strategy for drug resistant bacterial pathogens. In Abstracts, International Conference of Punjab University: Recent Advances in Molecular Sciences. University of the Punjab, Lahore- Pakistan. pp 262. November 06-08.
- Sohaib Afzaal, F. Zahid, S. Ali, and M. S. Haider. 2019. Effects of fermentation and sterilization on phytic acid contents in wheat bran and sensory evaluation of bread baked with pre-fermented and pre-sterilized bran. International Conference of Punjab University: Recent Advances in Molecular Sciences. University of the Punjab, Lahore- Pakistan. pp 296. November 06-08.

Dr. Muhammad Shafiq, Assistant Professor

- Organized International Horticulture Conference Conference on 26-28th February 2020.

Mr. Nadeem Shad, Lecturer

- International Conference of Punjab University 2019 (ICPU 2019) on “Recent Innovations in Molecular Sciences” held at School of Biological Sciences, University of the Punjab; Lahore, Pakistan on November 06-08, 2019: organized by University of the Punjab; Lahore and HEC, Pakistan.
- A Webinar on “Align yourself to the Publishing Process” held on May 20, 2020; organized by HEC Pakistan and Elsevier Publishers, Singapore.

Mr. Moazzam Anees, Lecturer

- Completed training on “Road show on new R&D framework of HEC” held on November 23, 2019 at PU, Lahore.
- Member of the organizing committee of international Symposium on “Halal Accreditation: Adding value to Lifestyle & Economic Success” on October 23-24, 2019 at PU, Lahore.



- Conference Secretary of the "International Horticulture Conference (IHC 2020)" held on February 26-28, 2020.
- Organizer of "Peace Narrative Training" organized by PU and CHANGE on February 3-4, 2020.

○ **Research Journals**

Dr. M. Saleem Haider, Professor & Director

- Kalsoom, R., Haider, M.S. and Chohan, S. (2020). Phytochemical analysis and antifungal activity of some medicinal plants against *Alternaria* species isolated from onion. *The Journal of Animal and Plant Sciences*, 30(2): 1-7.
- Manzoor, M., Ahmad, J.N., Giblin-Davis, R.M., Javed, N. and Haider, M.S. (2020). Effects of entomopathogenic nematodes and/or fungus on the red palm weevil, *Rhynchophorus ferrugineus* (Curculionidae: Coleoptera). *Nematology*, 0: 1-15
- Manzoor, M., Ahmad, J.N., Samina, J.N., Ahmad, Naqvi, S.A., Umar, U., Rasheed, R. and Haider, M.S. (2020). Population dynamics, abundance and infestation of the red palm weevil, *Rhynchophorus ferrugineus* (Olivier) in different geographical regions of date palm in Pakistan. *Pakistan Journal of Agricultural Sciences*, 57(2): 381-391
- Anwar, W., Nawaz, K., Javed, M.A., Akhter, A., Shahid A.A, Haider, M.S., Ur Rehman, M.Z. and Ali, S. (2020). Characterization of fungal flora associated with sternorrhyncha insects of cotton plants. *Biologia*. <https://doi.org/10.2478/s11756-020-00549-0>
- Ashfaq, M. Ali, M., Shahzad, M., Anjum, M.A., Haider, M.S. and Mubashar, U. (2019). Efficacy assessment of bio-pesticides against rice leaf folder, *Cnaphalocrocis medinalis* (Guenee) (Lepidoptera: Pyralidae) using DNA quantification method. *International Journal of Biology & Biotechnology*, 16(2): 391-399.
- Anwar, W., Javed, M.A., Shahid, A.A., Nawaz, K., Akhter, A., Ur-Rehman, M.Z., Hameed, U., Iftikhar, S. and Haider, M.S. (2019). Chitinase genes from *Metarhizium anisopliae* for the control of whitefly in cotton. *Royal Society Open Science*, 6: 1-12.
- Ashfaq, M., Anjum, M.A., Haider, M.S., Ali, M., Mubashar, U, Aslam, H.M.U. and Sajjad, M. (2020). Association of *Cladosporium cladosporioides* brown leaf spot of Lady Palm in Pakistan. *The Journal of Animal & Plant Sciences*, 30(2): 371-376.

Dr. Tehmina Anjum, Professor

- Naseem Hassan, Hina Ashraf, Tehmina Anjum, Waheed Akram. 2020. Phyto-synthesized silver nanoparticles using leaves extracts of *Morus alba* and *Aegle marmelos* inhibited fusarium wilt and charcoal rot in tomato. *International Journal of Agriculture and Biology*. M.S. NO: IJAB-20-0819.
- Tehmina Anjum, Wajiha Irum, Mazhar Iqbal, Abdul Ghaffar, Mateen Abbas. 2020. Identification of degradation products of aflatoxin B1 and B2 resulting after their biodegradation by aqueous extracts of *Acacia nilotica*. *World Mycotoxin Journal*. <https://doi.org/10.3920/WMJ2018.2411>.
- Yongxin Tao, Xinhua Quan, Ibatsam Khokhar, Tehmina Anjum, Hanbing Song, Irum Mukhtar. 2020. First report of *Pseudopezalotiopsis theae* causing leaf spot of date palm (*Phoenix dactylifera*) in China. *Plant Disease*. 10.1590/s0100-83582020380100052



- Guihua Li, Juxian Guo, Wenlong Luo, Tehmina Anjum, Waheed Akram, Aqeel Ahmad, Basharat Ali, Muhammad Adnan, Mei Fu. 2020. Development of high density genetic map by specific locus amplified fragment (SLAF) sequencing and identification of QTLs governing flowering and bolting time in Chinese Kale. *International Journal of Agriculture and Biology*. 24:511-516. DOI: 10.17957/IJAB/15.1466
- Tehmina Anjum, Rasheda Jabeen, Steve Adkins. 2020. Exploring Parthenium weed biotypes by chloroplast DNA barcode Analysis. *Planta Daninha*. 38:e020191623 10.1590/s0100-83582020380100052
- Hina Ashraf, Tehmina Anjum, Saira Riaz and Shahzad Naseem. 2020. Microwave assisted green synthesis and characterization of silver nanoparticles using *Melia azedarach* for the management of *Fusarium* wilt in tomato. *Frontiers in Microbiology*. doi: <https://doi.org/10.3389/fmicb.2020.00238>
- Waheed Akram, Guihua Li, Aqeel Ahmad, Tehmina Anjum, Basharat Ali, Juxian Guo, Wenlong Luo, Tingquan Wu, Dasen Xie, and Fu Mei. 2020. *Pseudocercospora exilis* causing leaf spot disease on *Brassica rapa* subsp. *parachinensis* in China. *Plant Disease*. 104(6): 1861-1861. <https://doi.org/10.1094/PDIS-01-20-0165-PDN>
- Waheed Akram, Hina Aslam, Sajid Rasheed Ahmad, Tehmina Anjum, Nasim Ahmad Yasin, Waheed Ullah Khan, Aqeel Ahmad, Juxian Guo, Tingquan Wu, Wenlong Luo, Guihua Li. 2019. *Bacillus megaterium* strain A12 ameliorates salinity stress in tomato plants through multiple mechanisms. *Journal of Plant Interactions*. 14(1): 506 - 518.
- Waheed Akram, Guihua Li, Aqeel Ahmad, Tehmina Anjum, Basharat Ali, Juxian Guo, Wenlong Tingquan Wu, Dasen Xie, Qing Wang. 2019. *Alternaria brassicicola* causing leaf spot disease on Broccoli in China. *Plant Disease*. <https://doi.org/10.1094/PDIS-05-19-1013-PDN>
- Waheed Akram, Guihua Li, Aqeel Ahmad, Tehmina Anjum, Basharat Ali, Wenlong Luo, Juxian Guo, Dasen Xie, Qing Wang. 2019. Leaf spot disease caused by *Alternaria arborescens*, *A. tenuissima*, and *A. infectoria* on *Brassica rapa* L subsp. *parachinensis* in China. *Plant Disease*. <https://doi.org/10.1094/PDIS-05-19-0951-PDN>
- Huma Adrees, Muhammad Saleem Haider, Tehmina Anjum, Waheed Akram. 2019. Inducing systemic resistance in cotton plants against charcoal root rot pathogen using indigenous rhizospheric bacterial strains and chemical elicitors. *Crop protection*. 115: 75 - 83
- Shafiq ur Rehman, Wajeeha Afzal, Tehmina Anjum, Hassan Javed Choudhry, Sajid Rashid Ahmad and Mehmood Aslam. 2019. Screening and evaluation of indigenous halo-tolerant microbes for salt stress alleviation in celery (*Apium graveolens*). *Soil and Environment*. 38(1): 42 – 47.

Dr. Muhammad Nasir Subhani, Associate Professor

- Zahid Iqbal, Muhammad Bilal Chattha* and Muhammad Nasir Subhani. 2020. Impact of different levels of nitrogen by soil application and fertigation through drip irrigation on growth, yield and quality of sugarcane. *Pak. J. Agri. Sci.*, 57(3): 829-835.



- M. Ali, A.A. Shahid, and M.N. Subhani. 2019. Mapping and monitoring for the valuation of soil fungi and chili damping off. *The Journal of Animal & Plant Sciences*, 29(3):737-745.

Dr. Uzma Bashir, Associate Professor

- Muhammad Ashfaq, Mubarak A. Anjum, M. Saleem. Haider, Muhammad. Ali, Uzma Bashir, U. Mubashar and Muhammad Sajjad. 2020. Association of *Cladosporium cladosporioides* brown leaf spot of lady palm in Pakistan. *Journal of animal and plant sciences*. 30 (2), 371-376
- Muhammad Atif, Uzma Bashir, Muhammad Tariq Manzoor, Nida Rafaqat, Muhammad Abdullah, 2019. Diversity, Mutation and Recombination analysis of chilli infecting Geminiviruses from Indian subcontinent. *Microbial Pathogenesis*. (Under review).
- Arshad Javaid, Iqra H Khan, Khajista Jabeen, Uzma Bashir. 2019. Evaluation of Mycochemical Profile of *Alternaria Japonica* through Gc-Ms Analysis. *Pakistan Journal of Phytopathology* 31 (2), 171-175

Dr. Arshad Javaid, Associate Professor

- Shoaib A, Nisar Z, Nafisa, Javaid A, Khurshid S, Javed S (2019). Necrotropic fungus *Macrophomina phaseolina* tolerates chromium stress through regulating antioxidant enzymes and genes expression. *Environmental Science and Pollution Research* 26(12): 12446-12458.
- Naqvi SF, Javaid A, Qureshi MZ (2019). Evaluation of antifungal potential of leaf extract of *Chenopodium murale* against *Fusarium oxysporum* f. sp. *lycopersici*. *Planta Daninha* 37: e019199050.
- Akhtar R, Javaid A, Qureshi MZ (2020). Efficacy of shoot extracts of *Sisymbrium irio* against *Fusarium oxysporum* f. sp. *cepa*. *Planta Daninha* 38: e020200961.
- Banaras S, Javaid A, Shoaib A (2020). Non-chemical control of charcoal rot of urdbean by *Sonchus oleraceus* application. *Planta Daninha* 38: e020216088.
- Javaid A, Afzal R. Shoaib A (2020). Biological management of southern blight of chili by *Penicillium oxalicum* and leaves of *Eucalyptus citriodora*. *International Journal of Agriculture and Biology* 23(1): 93-102.
- Khan IH, Javaid A (2020). Comparative antifungal potential of stem extracts of four quinoa varieties against *Macrophomina phaseolina*. *International Journal of Agriculture and Biology* 24(3): 441-446.
- Shoaib A, Ali H, Javaid A, Awan ZA (2020). Contending charcoal rot disease of mungbean by employing biocontrol *Ochrobactrum ciceri* and zinc. *Physiology and Molecular Biology of Plants* 26(7): 1385-1397.
- Khan IH, Javaid A, Al-Taie AH, Ahmed D (2020). Use of neem leaves as soil amendment for the control of collar rot disease of chickpea. *Egyptian Journal of Biological Pest Control* 30: 98.
- Ali A, Javaid A, Shoaib A, Khan IH (2020). Effect of soil amendment with *Chenopodium album* dry biomass and two *Trichoderma* species on growth of chickpea var. Noor 2009 in *Sclerotium rolfsii* contaminated soil. *Egyptian Journal of Biological Pest Control* 30: 102.



- Javaid A, Munir R, Khan IH, Shoaib A (2020). Control of the chickpea blight, *Ascochyta rabiei*, with the weed plant, *Withania somnifera*. *Egyptian Journal of Biological Pest Control* 30: 114.
- Javaid A, Qudsia H, Shoaib A (2019). Effect of *Senna occidentalis* dry biomass and *Penicillium oxalicum* on growth of mash bean under *Macrophomina phaseolina* stress. *Pakistan Journal of Weed Science Research* 25(4): 269-278.
- Shoaib A, Shezad A, Javaid A, Akhtar S, Awan ZA (2019). Evaluation of biocontrol strategies and its synergistic interaction permitting the chickpea plant to trigger the appropriate defense responses against *Sclerotium rolfsii*. *Biologia (Pakistan)*, 65(2): 329-334
- Khan IH, Javaid A, Ahmed D, Khan U (2020). Identification of volatile constituents of ethyl acetate fraction of *Chenopodium quinoa* roots extract by GC-MS. *International Journal of Biology and Biotechnology* 17(1): 17-21.
- Javaid A, Khan IH (2020). Potential use of *Coronopus didymus* in parthenium management. *Pakistan Journal of Weed Science Research* 26(1): 37-45.
- Javaid N, Shah MH, Khan IH, Javaid A, Waleed SM (2020). Herbicidal activity of *Ageratum conyzoides* against parthenium. *Pakistan Journal of Weed Science Research* 26(2):137-146.
- Javaid S, Shah MH, Khan IH, Javaid A, Waleed SM (2020). Using extracts of lamb's quarters weed for control of *Alternaria alternata*. *Pakistan Journal of Weed Science Research* 26(2): 147-155.
- Rafiq M, Shoaib A, Javaid A, (2020). GC-MS analysis of *Sonchus asper* root extract for identification of fungicidal compounds against *Rhizoctonia solani*. *Pakistan Journal of Weed Science Research* 26(3): 267-274.
- Javaid A, Ali A, Khan IH, Shoaib A (2020). *Chenopodium album* mitigates adverse effects of *Sclerotium rolfsii* on chickpea var. Bakhar-2011. *Pakistan Journal of Weed Science Research* 26(3): 275-285.
- Shad N, Ejaz R, Jamal A, Khan IH, Javaid A (2019). Isolation and identification of seed associated fungi of wheat. *Mycopath*, 17(2): 59-62.
- Shad N, Ahmed M, Jamal A, Khan IH, Javaid A (2019). Air-borne mycoflora from Lahore to Sahiwal. *Mycopath*, 17(2): 89-92.
- Javaid A, Amin M, Khan IH (2020). Identification of phyto-components of *Syzygium cumini* fruit. *International Journal of Biology and Biotechnology* 17(3): 497-501

Dr. Amna Shoaib, Associate Professor

- S. Akhtar and Shoaib A. (2020). The counter defence system of antioxidants in Coelomycetous emerging human and plant pathogenic fungus *Macrophomina phaseolina* against copper toxicity. *Environmental Science and Pollution Research*, 27: 597-606.
- Nafisa, Shoaib A., Iqbal J. and Khan KA. (2020). Evaluation of phenotypic, physiological and biochemical attributes connected with resistance in tomato against *Alternaria solani*. *Acta Physiologiae Plantarum*, 42, Article number: 88. <https://link.springer.com/article/10.1007/s11738-020-03076-2>.



- Shoaib, Ali H., Javaid A. and Awan ZA. (2020). Contending charcoal rot disease of mungbean by employing biocontrol *Ochrobactrum ciceri* and zinc. *Physiology and Molecular Biology of the Plant*, 26(7):1385–1397.
- Javaid, Afzal R. and Shoaib A. (2020). Biological management of southern blight of chili by *Penicillium oxalicum* and leaves of *Eucalyptus citriodora*. *International Journal of Agriculture and Biology*, 23(1): 93-102.
- S. Banaras, Javaid A. and Shoaib A. (2020). Non-chemical control of charcoal rot of urdbean by *Sonchus oleraceus* application. *Planta Daninha*, 38: e020216088.
- Ali, Javaid A., Shoaib A. and Haider I. (2020). Effect of soil amendment with *Chenopodium album* dry biomass and two *Trichoderma* species on growth of chickpea var. Noor 2009 in *Sclerotium rolfsii* contaminated soil. *Egyptian Journal of Biological Pest Control*, 30: 102.
- Javaid, Munir R., Khan IH. and Shoaib A. (2020). Control of the chickpea blight, *Ascochyta rabiei* with the weed plant, *Withania somnifera*. *Egyptian Journal of Biological Pest Control*, 30: 114.
- S. Siddique, Shoaib A., Khan SN. and Mohy-ud-din A. (2020). Screening and histopathological characterization of sunflower germplasm for resistance to *Macrophomina phaseolina*. *Mycologia*. doi.org/10.1080/00275514.2020.1810516.
- Shoaib, Nisar Z., Nafisa, Javaid A., Khurshid S. and Javed S. (2019). Necrotrophic fungus *Macrophomina phaseolina* tolerates chromium stress through regulating antioxidant enzymes and genes expression. *Environmental Science and Pollution Research*, 26(12): 12446-12458.
- Shoaib, Awan ZA. and Khan KA. (2019). Intervention of antagonistic bacteria as potential inducer of disease resistance in tomato to mitigate early blight. *Scientia Horticulturae*, 252 (27): 20-28.
- ZA. Awan, Shoaib A. and Khan KA. (2019). Crosstalk of Zn in combination with other fertilizers underpins interactive effects and induces resistance in tomato plant against early blight disease. *Plant Pathology Journal*, 35(4): 330-340.
- Javaid, Ali A., Khan IH. and Shoaib A. (2020). *Chenopodium album* mitigates adverse effects of *Sclerotium rolfsii* on chickpea var. Bakhar-2011. *Pakistan Journal of Weed Science Research*, 26(3): 275-285.
- MRafiq, Shoaib A. and Javaid A. (2020). GC-MS analysis of *Sonchus asper* root extract for identification of fungicidal compounds against *Rhizoctonia solani*. *Pakistan Journal of Weed Science*, 26(3): 267-274.
- D-E Shahwar, Hussain K., Bukhari NI., Iqbal Z., Shoaib A., Shahzadi N. and Rafique F. (2020). Antibacterial activity of organic extracts of root bark of *Ziziphus jujube* Gaertn (L.) var. *hysudrica* Edgew. *International Journal of Biosciences*. 16 (1): 251-260.

Dr. Shazia Shafique, Associate Professor

- Shazia Shafique, Sobiya Shafique, Sonia Sahar and Naureen Akhtar, 2020. First Report of *Exserohilum rostratum* (Drechsler) K.J. Leonard & Suggs. inducing Leaf Spot of *Solanum melongena* in Pakistan. *International Journal of Agricultural and biology*, 24(4): 751-754.



- Muhammad Shakeel, Salik Nawaz, Yasar Saleem, Shazia Shafique, Ateeq Tahir and Muhammad Riaz, 2020. Broccoli: Introduction and Adoption Constraints in Pakistan. *Sarhad Journal of Agriculture*, 36(2): 526-532.
- Shazia Shafique, Sobiya Shafique and Sonia Sahar, 2020. *Thymus serpyllum* – A Novel Biocontrol Agent against Leaf Spot Pathogens of *Solanum melongena*. *Pakistan Journal of Weed Science Research*, 26(4): 469-479.
- Sobiya Shafique, Shazia Shafique, Mariam Zameer and Muhammad Asif, 2019. Plant defense system activated in chili plants by using extracts from *Eucalyptus citriodora*. *Biocontrol Science*, 24(3): 137-144.
- Shazia Shafique, Sobiya Shafique, Alina Javed, Naureen Akhtar, and Shumaila Bibi, 2019. Analysis of Antagonistic Potential of Secondary Metabolites and Organic Fractions of *Trichoderma* Species against *Alternaria Alternata*. *Biocontrol Science*, 24(2): 81 – 88.

Dr. Rashid Mahmood, Assistant Professor

- Ali, A., ul Haq, T., Mahmood, R., Jaan, M., & Abbas, M. N. (2019). Stimulating the anti-oxidative role and wheat growth improvement through silicon under salt stress. *Silicon*, 11(5), 2403-2406.
- Javaid, A., Anjum, F., Mahmood, R., & Akhtar, N. (2019). Relationship between soil chemical characteristics and soil-borne fungi in tomato tunnels of Punjab, Pakistan. *Bangladesh journal of botany*, 48(3), 409-416.
- Shakeel, S., Mahmood, R., Fatima, A., & Ali, S. (2020). Application of Response Surface Methodology to Optimize Ammonia Volatilization Determination by Enclosure Method. *Communications in Soil Science and Plant Analysis*, 51(15), 2038-2044.
- Riaz, M., Mahmood, R., Khan, S. N., Haider, M. S., & Ramzan, S. (2020). Onion tip burn: Significance, and response to amount and form of nitrogen. *Scientia Horticulturae*, 261, 108773.

Dr. M. Bilal Chattha, Associate Professor

- Hassan, M.U., M.U. Chattha, L. Barbanti, M.B. Chattha, A. Mahmood, I. Khan, M. Nawaz. 2019. Combined cultivar and harvest time to enhance biomass and methane yield in sorghum under warm dry conditions in Pakistan. *Industrial Crops and Products*.132. 84-91.
- Hassan, M.U., M.U. Chattha, M.B. Chattha, A. Mahmood and S.T. Sahi. 2019. Chemical composition and methane yield of sorghum as influenced by planting methods and cultivars. *The Journal of Animal and Plant Sciences*. 29(1):251-259
- Chattha, M.U., M.U. Hassan, L. Barbanti, M.B. Chattha, I. Khan, M. Usman, A. Ali, M. Nawaz. 2019. Composted sugarcane by-product press mud cake supports wheat growth and improves soil properties. *International Journal of Plant Production*. 13(3):241-249.
- Ahmad, S., M.W. Alam, S. Majeed, M. Bilal, M. Shafiq, M. Khurshid, M. Sarwar, T. Shafeeq, S. Salman, and Q. Ali. 2019. Study of morphological and qualitative plant traits against the infestation of *Chilo infuscatellus* L. (Pyralidae, Lepidoptera). *Applied Ecology and Environmental Research*. 17(5):7057-7065.



- Sarwar, M., S. Ahmad, M.B. Chattha, M.U. Chattha, M.W. Alam, S. Anjum, T. Shafeeq, M.K. Naseem, and A. Mannan. 2019. Assessment of growth and productivity of Cucumber (*Cucumis sativus* L.) genotypes under salt stress regime. *Applied Ecology and Environmental Research*. 17(5):10793-10806.
- Chattha, M.U., M.U. Hassan, I. Khan, M.B. Chattha, M. Aamer, M. Nawaz, S.A. Anjum, U. Ashraf, and M. Kharal. 2020. Impact of planting methods on biomass production, chemical composition and methane yield of sorghum cultivars. *Pakistan Journal of Agricultural Sciences*, 57(1): 43-51.
- Zamir SI, IU Haq, MU Chattha, MU Hassan, I Khan, MB Chattha, N Saeed, MM Iqbal, MA Ayub, A Rehman, 2020. Harvesting at milking stage along with urea and molasses addition improved the quality and fermentation characteristics of corn silage. *Intl J Agric Biol*. 23:253–258
- Iqbal, Z., M.B. Chattha and M.N. Subhani. 2020. Impact of different levels of nitrogen by soil application and fertigation through drip irrigation on growth, yield and quality of sugarcane. *Pakistan Journal of Agricultural Sciences*. 57(3): 829-835.
- Hassan, M.U., M.U. Chattha, I. Khan, M.B. Chattha, L. Barbanti, M. Aamer, M. M. Iqbal, M. Nawaz, A. Mahmood, A. Ali and M.T. Aslam. 2020. Heat stress in cultivated plants: nature, impact, mechanisms, and mitigation strategies - A review, *Plant Biosystems - An International Journal Dealing with all Aspects of Plant Biology*, DOI: 10.1080/11263504.2020.1727987.
- Ali, S., M.U. Chattha, M.U. Hassan, I. Khan, M.B. Chattha, B. Iqbal, M. Rehman, M. Nawaz and M.Z. Amin. 2020. Growth, Biomass Production, and Yield Potential of Quinoa (*Chenopodium quinoa* Willd.) as Affected by Planting Techniques Under Irrigated Conditions. *Int. J. Plant Prod*. 14:427-441(2020). <https://doi.org/10.1007/s42106-020-00094-5>
- Hasnain, Z., S. Zafar, U. Shafqat, S. Perveen, N. Iqbal, S.A. Qaisrani, M.B. Chattha and S. Mumtaz. 2020. Antibacterial activity of eco-friendly zinc nanoparticles prepared from leaf extract of *Mentha piperita* L. *Pak. J. Pharm. Sci.*, 33(5) Special: 2413-2416.

Dr. Shinawar Waseem Ali, Assistant Professor

- Niranjan Koirala, Chiran Dhakal, Nabin Narayan Munankarmi, Shinawar Waseem Ali, Aneela Hameed, Natalia Martins, Javad Sharifi-Rad, Muhammad Imran, Atta Muhammad Arif, Muhammad Shakeel Hanif, Ram Chandra Basnyat and Bahare Salehi. *Vitex negundo* Linn.: phytochemical composition, nutritional analysis, and antioxidant and antimicrobial activity. *Cellular and Molecular Biology*, 66: 4 (2020) 1-7, <http://dx.doi.org/10.14715/cmb/2020.66.4.1>
- Soane Kaline Morais Chaves, Muhammad Inam Afzal, Muhammad Torequl Islam, Aneela Hameed, Ana Maria Oliveira Ferreira Da Mata, Lidiane Da Silva Ara'ujo, Shinawar Waseem Ali, Hercilia Maria Lins Rolim, Maria das Graccas Freire De Medeiros, Emmanoel Vilaca Costa, Bahare Salehi, Natalia Martins, Atta Muhammad Arif,



- Muhammad Imran, Javad Sharifi-Rad, Ana Amelia de Carvalho Melo-Cavalcante and Chistiane Mendes Feitosa. Palmatine antioxidant and anti-acetylcholinesterase activities: A pre-clinical assessment. *Cellular and Molecular Biology*, 66: 4 (2020) 54-59, <http://dx.doi.org/10.14715/cmb/2020.66.4.9>.
- Raizza Eveline E. Pinheiro, Thiago P. Chaves, Eveny S. Melo, Sultan Ali, Shinawar Waseem Ali, Muhammad Umer, Gil Sander P. Gama, Dalliane N. S. Lira, Joao Sammy N. Souza, Maria Jose dos S. Soares, Andr'e de Souza Santos, Rinaldo Aparecido Mota, Priscilla Ramos Freitas, Muhammad Inam Afzal, Bahare Salehi, Henrique Douglas Melo Coutinho, William N. Setzer, Muhammad Imran and Javad Sharifi-Rad. Modulatory-antibiotic activity of the essential oil from *Eucalyptus citriodora* against MDR bacterial strains. *Cellular and Molecular Biology*, 66: 4 (2020) 60-64, <http://dx.doi.org/10.14715/cmb/2020.66.4.10>
 - Muhammad Torequul Islam, Natalia Martins, Muhammad Imran, Aneela Hameed, Shinawar Waseem Ali, Bahare Salehi, Ishtiaque Ahmad, Ahmad Hussain and Javad Sharifi-Rad. Anxiolytic-like effects of *Moringa oleifera* in Swiss mice. *Cellular and Molecular Biology*, 66: 4 (2020) 73-77, <http://dx.doi.org/10.14715/cmb/2020.66.4.12>,
 - Mohale K. Cecilia, Assress H. Abrha, Nyoni Hlengilizwe, Araya T. Hintsa, Muhammad Umer, Mudau F. Nixwell, Shinawar Waseem Ali, Muhammad Inam Afzal, Miquel Martorell, Bahare Salehi, William N. Setzer, Muhammad Umair Sattar, Muhammad Imran and Javad Sharifi-Rad. Untargeted profiling of field cultivated bush tea (*Athrixia phylicoides* DC.) based on metabolite analysis. *Cellular and Molecular Biology*, 66: 4 (2020) 104-109, <http://dx.doi.org/10.14715/cmb/2020.66.4.14>.
 - Jacqueline C. Andrade, Antonia T.L. Dos Santos, Ana R.P. Da Silva, Maria A. Freitas, Muhammad Inam Afzal, Maria I.P. Gonccalo, Victor J. A. Fonseca, Maria do S. Costa, Joara N. P. Carneiro, Erlanio O. Sousa, Yedda M. L. S. De Matos, Thiago S. De Freitas, Amanda K. De Sousa, Maria F. B. Morais-Braga, Henrique D. M. Coutinho, Shinawar Waseem Ali, Bahare Salehi, Muhammad Imran, Muhammad Umer, Ehsan Ul-Haque, William N. Setzer and Javad Sharifi-Rad. Phytochemical characterization of the *Ziziphus joazeiro* Mart. metabolites by UPLC-QTOF and antifungal activity evaluation. *Cellular and Molecular Biology*, 66:4 (2020) 127-132, <http://dx.doi.org/10.14715/cmb/2020.66.4.17>.
 - Muhammad Akhlaq and Shinawar Waseem Ali. Effect of storage, initial grain moisture and fumigation on rheological quality of wheat stored in hot steppe climate. *Cereal Chemistry*, (2020) doi.org/10.1002/cche.10307.
 - Asad Nawaz, Shinawar Waseem Ali, Sana Irshad, Fatima Irshad, Aftab Ahmed, Zainab Sharmeen and Imran Khan. Effect of peeling and unpeeling on yield, chemical structure, morphology and pasting properties of starch extracted from three diverse potato cultivars. *Int'l Journal of Food Science & Technology*, 55:6 (2020) 2344-2351 doi: 10.1111/ijfs.14412.



- Ayesha Murtaza, Aamir Iqbal, Krystian Marszałek, Muhammad Amjed Iqbal, Shinawar Waseem Ali, Xiaoyun Xu, Siyi Pan and Wanfeng Hu. Enzymatic, Phyto-, and Physicochemical Evaluation of Apple Juice under High-Pressure Carbon Dioxide and Thermal Processing. *Foods*, 9:2 (2020) 243; 1-14, doi:10.3390/foods9020243.
- Aftab Ahmed, Shinawar Waseem Ali, Ali Imran, Muhammad Afzaal, Muhammad Sajid Arshad, Muhammad Nadeem, Zahid Mubeen and Ali Ikram. Formulation of date pit oil-based edible wax coating for extending the storage stability of guava fruit. *Journal of Food Processing & Preservation*, 44:2 (2020) e143336; 1-10. doi: 10.1111/jfpp.14336

Dr. Shahbaz Ahmad, Assistant Professor

- A. Hanan, T. Nazir, A. Basit, S. Ahmad and Q. Dewen, 2020. Potential of lecanicillium lecanii (verticillium lecanii) as microbial control agent of green peach aphid (myzus persicae sulzer). *Pakistan Journal of Zoology*. Vol. 52(01):131-137.
- Ahmad, S., M, Arslan, Biological control potential against Fall armyworm Spodoptera frugiperda (Noctuidae: Lepidoptera) in Pakistan. *International Organization for Biological Control (IOBC)*, IOBC-Global Newsletter Issue 107 June 2020.
- M.W Alam, A. Rehman, A. Malik, M. S. Haider, M. Amin, S. Ahmad, M. Sarwar, H. Rosli and M.L Gleason, 2019. Dynamics of Stem End Rot Disease of Mango Fruit and Its Management. *Pakistan Journal of Agricultural Sciences*. Vol.57(1):63-71 DOI: 1021162/PAKJAS/19.8336
- M, Ashfaq, I, Saleem, MS Haider, M, Ali, J, Iqbal Watto, M, Shafiq, S, Ahmad, M, Asrar, A Rasheed and Urooj Mubashar, 2020. Ssr Based Screening of Rice Germplasm against Blast Disease and Its GIS Monitoring in Punjab, Pakistan. *International Journal of Biology and Biotechnology*, 17 (3): 571-581, 2020.
- Firza Shafique, Qurban Ali, Ghulam Yasin, Shahbaz Ahmad, Tahir Shafeeq, Ahmad Zaheer and Arif Malik, 2020. Heavy Metal Toxicity and It's Physio- Biochemical Effects on Maize (Zea Mays L.). *Plant Cell Biotechnology and Molecular Biology* 21(45&46):94-102; 2020.
- Firza Shafique, Qurban Ali, Ghulam Yasin, Shahbaz Ahmad, Tahir Shafeeq, Ahmad Zaheer and Arif Malik, 2020. Response of Maize Genotypes to Manganese and Chromium Application. *Plant Cell Biotechnology and Molecular Biology* 21(53&54):85-95; 2020.
- Firza Shafique, Qurban Ali, Ghulam Yasin, Shahbaz Ahmad, Tahir Shafeeq, Ahmad Zaheer and Arif Malik, 2020. Genetic Association Among Morphological Traits of Zea Mays Under Heavy Metal Stress. *Plant Cell Biotechnology and Molecular Biology* 21(51&52):40-46; 2020.
- Shabaz Ahmad, Hera Z, Hanif Ms, Syed Ah, 2020. Effects of Carbosulfan on the Biology of Bird Cherry Oat Aphid. *Biological and Clinical Sciences Research Journal* ISSN: 2708-2261.

Dr. Muhammad Shafiq, Assistant Professor

- Muhammad Shafiq, Mukhtar Ahmad, Ayesha Nisar, Muhammad Tariq Manzoor, Arslan Abid, Sehrish Mushtaq, Adeel Riaz, Muhammad Ilyas, Waseem Sarwar, Muhammad Shah Nawaz-ul-Rehman, Saleem Haider, Ayesha Yunus, Muhammad Mubin (2019) Molecular characterization and phylogenetic analysis of tomato leaf curl Palampur virus, a bipartite begomovirus, associated with Cucumis sativus L. in Pakistan, 3 *Biotech* (2019) 9:204



- Muhammad Usman Ashraf, Kanzal Iman, Talha Shaf, Muhammad Farhan Khalid, Hafiz Muhammad Salman, Momal Rafi, Nida Javaid, Rashad Hussain, Fayyaz Ahmad, Syed Shahzad ul Hussan, Shaper Mirza, Muhammad Shafiq, Samia Afzal, Sadia Hamera, Saima Anwar, Romena Qazi, Muhammad Idrees, Sohail A. Qureshi, Safee Ullah Chaudhary (2019) Evolution of Efficacious Pan-Genotypic HCV Therapies, Medicinal Research Review Med Res Rev. 2019;39:1091–1136.
- Sajid Ali, A. Fatima, S. Khalid, F. Saeed, M. Shafiq, S. Afzaal, M. S. Haider, W. Tariq and J. Khan. 2019. Virus titer as a disease resistance indicator in Tomato. Bangladesh J. Bot. 48 (3): 609-617
- M. I. Qamar, M. U. Ghanzafar, M. F. Abbas, R. Zainab, S. Andleeb, M. Shafiq, and S. Mushtaq (2019) First Report of Macrophomina phaseolina Causing Crown and Root Rot on Strawberry in Sargodha, Pakistan; Plant Disease Published Online:19 Mar 2019 <https://doi.org/10.1094/PDIS-10-18-1876-PDN>
- Mushtaq, S., M. Shafiq, T. Ashraf, M. S. Haider, M. Ashfaq* and M. Ali. 2019. Characterization of plant growth promoting activities of bacterial endophytes and their antibacterial potential isolated from citrus. J. Ani. Pla. Sci. 29 (4): 978-991(IF:0.529)
- Ahmad, S. Alam, M. W, Majeed, S. Bilal, M. Shafiq, M, Khurshid, M. Sarwar, M. Shafeeq, T. Salman, S, Ali, Q. (2019) A study of morphological and qualitative plant traits against the infestation of Chilo infuscatellus L. (Pyralidae, Lepidoptera), Applied Ecology and Environmental Research 17(3): 7057-7065 IF 0.687
- Sehrish Mushtaq, Muhammad Shafiq, Ummad Hussain, aFreeha Ali, Amna Ali, Faiza Khan, Muhammad Asim, Muhammad S. Haider (2019) Incidence of Pantoea agglomerans associated with Barnyard grass (Echinochloa crusgalli L.) in Pakistan Pak. J. Phytopathol., Vol. 31 (01) 2019. 119-122

Mr. Moazzam Anees, Lecturar

- Moazzam Anees, Ali Zain Awan, Muhammad Tariq Manzoor, Sajid Ali, Shinawar Waseem Ali, Muhammad Rizwan Tariq and Muhammad Shafiq. Post-harvest treatments improve the physicochemical characteristics of guava (Psidium guajava) fruit cv. Surahi. IHC 2020 Proceedings.

RESEARCH COLLABORATION

○ Indigenous

- Central Cotton Research Institute, Multan
- Ayub Agricultural Research Institute, Faisalabad
- Environment Protection Department (EPD), Lahore
- Rice Research Centre Bahawalnagar.
- Adaptive Research Farm Gujranwala (Agriculture Department).
- Centre of Excellence in Molecular Biology.
- Higher Education Commission Islamabad.
- Institute of Chemistry, University of the Punjab Lahore.



- Department of Botany, Lahore College for Women University Lahore.
 - Department of Chemistry, GC University Lahore.
 - Department of Chemistry, FC College University Lahore.
 - Department of Botany, University of Gujrat.
 - School of Biological Sciences, University of the Punjab, Lahore
 - Water Management Training Institute, Punjab, Lahore.
 - Department of Botany, Education University.
 - Gulberg College, Lahore.
 - National Agricultural Research Centre (NARC), Islamabad.
 - Balochistan Agriculture College, Quetta
 - Institute of Chemistry, University of the Punjab, Lahore
 - Lahore College for Women University, Lahore
 - Engro Pvt. Ltd, Lahore
 - Maize and Millets Research Institute (MMRI), Yousaf Wala; Sahiwal.
 - Tara Agrochemicals (pvt.) Ltd.
 - Institute of Chemistry, University of the Punjab Lahore.
 - Soil Survey of Punjab
 - Punjab Agri extension Department
 - Engro Fertilizer Company pvt. limited
 - Department of Environmental Science, Lahore College for Women University, Lahore
 - Engro Chemicals Pvt. Ltd.
 - Central Cotton Research Institute, Multan
 - Ayub Agricultural Research Institute, Faisalabad
 - Environment Protection Department (EPD), Lahore
 - Rice Research Centre Bahawalnagar.
 - Adaptive Research Farm Gujranwala (Agriculture Department).
 - Centre of Excellence in Molecular Biology.
- **Foreign Linkages**
- Punjab University – PARB – University of Toronto, Canada
 - Punjab University – ICARDA –USDA, University of Arizona, USA
 - Punjab University – Swedish University of Agricultural Sciences (SLU), Uppsala, Sweden.
 - Punjab University and Wuhan University China
 - University of Wisconsin-Madison, USA
 - Punjab University – University of Guelph, Canada
- **Funding grants for R&D**
- Prof. Dr. Muhammad Saleem Haider: Principal Investigator in one year (2018) project entitled 2018-19: As Principal Investigator entitled “Awareness of climate smart agriculture practices among the agri communities for sustainable environment development (under Social Integration Outreach Program (SIOP) of HEC)” of Rs.1.0 million by jointly funded by HEC and University of the Punjab, Lahore.



- Dr. Shazia Shafique, Associate Professor: Principal Investigator in one year (2018) project entitled “Detection of aflatoxins and their exploitive interaction with beneficial bacteria”. Grant Rs.0.150 million by the University of the Punjab.
- Dr. Arshad Javaid Associate Professor: Principal Investigator in one year (2019-20: Identification of Potential Herbicidal Constituents in *Penicillium* spp. against Parthenium Weed (0.2 million) From PU

Dr. M. Bilal Chattha, Associate Professor

- Completed a research project as Principal Investigator, entitled “Evaluation of Different Planting Geometries and Fertigation Levels under Surface and Subsurface Drip Irrigation System for Improving Water Use Efficiency under Various Crops.” worth PKR.2.212 million during 2017-19 funded by Water Management Training and Research Institute, Punjab, Lahore.
- Conducting a research project as Principal Investigator, entitled “Performance of organic and inorganic substances to induce salt stress tolerance in maize under agro climatic condition of Lahore” worth PKR.0.15 million during 2019-20 funded by University of the Punjab, Lahore.
- Dr. Rashid Mahmood, Associate Professor: Principal Investigator in one year (2019-20: Identification of Potential Herbicidal Constituents in *Penicillium* spp. against Parthenium Weed (0.2 million) From PU
- Dr. Shinawar Waseem Ali, Associate Professor: Principal Investigator in one year (2019-20) project entitled “Optimization of The Production Technology for The Preparation of Moringa Oleifera Based Fermented Dairy Product”. Grant Rs.0.150 million by the University of the Punjab
- Prof. Dr. Muhammad Saleem Haider: Principal Investigator in one year (2018) project entitled “Functional characterization of Mastrevirus promoter – An alternative of CaMV 35S Promoter”. Grant Rs.0.250 million by the University of the Punjab
- Prof. Dr. Muhammad Saleem Haider: Co-Principal Investigator in one year (2018) project entitled “Awareness of climate smart agriculture practices among the agri communities for sustainable environment development (under Social Integration Outreach Program (SIOP) of HEC)”. Grant Rs.1.0 million jointly by the University of the Punjab and HEC.
- Dr. Shazia Shafique, Associate Professor: Principal Investigator in one year (2018) project entitled “Antagonistic potential of Trichoderma secondary metabolites against *Alternaria alternata*”. Grant Rs.0.150 million by the University of the Punjab.
- Dr. Muhammad Bilal Chattha, Assistant Professor: completed a research project as Principal Investigator, entitled “Evaluation of Different Planting Geometries and Fertigation Levels under Surface and Subsurface Drip Irrigation System for Improving Water Use Efficiency under Various Crops.” worth PKR.2.212 million during 2017-19 funded by Water Management Training and Research Institute, Punjab, Lahore.



INSTITUTE OF APPLIED PSYCHOLOGY

○ **Research & Development: An Overview**

A Centre for Psychological Research and Services has been established as a unit of the Institute of Applied Psychology. The Centre has a team of motivated and highly experienced psychologists, working in the field of Behavioral Science, especially with reference to our culture. The aim is to produce high quality research. The Centre carries out international and collaborative research, and provides expertise to Private and Government sector in the field of personnel selection, measuring attitudes and public opinion, aptitude, career counseling, psychological test construction, psychological assessment, counseling and guidance, and community mental health programs. Numerous psychological assessment tests have been adapted and local norms for tests have been developed by the center. Students of the Institute also participate in this and other research activities under the supervision of their teachers.

Since its inception, the Centre has also been actively engaged in rendering informal professional counseling and assessment services to the individuals. Appropriate services are also provided to the organizations such as: Social Welfare Departments, Prisons, Staff Training Institutions, Civil Defense, Selection Boards, Business Organizations and Educational Institutions.

Faculty members are actively involved in conducting individual research and providing research supervision to BS, MSc, MPhil, MS and PhD students. They participate and present research findings at national and international level conferences. Faculty members' research work is published in journals of international repute. In addition, our faculty members serve as resource persons to provide training in research skills and other related skills at national level from the platform of NTS and HEC

○ **Projects: Completed**

Sr. No.	Name of Faculty Member	Project Name	Duration	Sponsoring Agency	Funding Rs.
1	Dr. Rafia Rafique Associate Professor	Self-Reported and Clinician Rated Mental Health Concerns and Perceived Barriers in Seeking Services among University Students	One Year	Punjab University	2,00,000/-
2	Dr. Iram Fatima Assistant Professor (TTS)	Health Locus of Control, Illness Behavior and Headache Related Quality of Life in Migraine Patients	One Year	Punjab University	1,50,000/-
3	Ms. Shazia Khalid Assistant Professor	Sick Building Syndrome and Job Performance in Female Factory Workers	One Year	Punjab University	1,50,000/-
4	Dr. Afsheen Masood Assistant Professor	Parenting Styles, Family Environment, Suicidal Ideation and Emotional Regulation in Late Adolescents	One Year	Punjab University	1,50,000/-



5	Dr. Saima Ghazal Assistant Professor (on Adhoc)	Child Abuse Risk Literacy: Preventing Child Abuse in Families at High Risk	One Year	Punjab University	1,50,000/-
6	Dr. Mujeeba Ashraf Assistant Professor (on Adhoc)	Violent Video Games and Aggressive Behaviour in Late Childhood	One Year	Punjab University	1,50,000/-

○ **Projects: Newly Launched (Research Projects Submitted for Research Grant Approval)**

Sr. No.	Name of Faculty Member	Project Name	Duration	Sponsoring Agency	Funding Rs.
1	Dr. Rafia Rafique Associate Professor	Efficacy of Surah Al-Rehman in Anger Management of Adolescents	One Year	Punjab University	2,00,000/-
2	Ms. Shazia Qayyum Assistant Professor	Development and Validation of Indigenous Organizational Conflict Types Scale	One Year	Punjab University	1,50,000/-
3	Dr. Saima Ghazal Assistant Professor (on Adhoc)	Growing Issue of Late Marriages in Pakistan: Predictors and Solutions	One Year	Punjab University	1,50,000/-
4	Dr. Mujeeba Ashraf Assistant Professor (on Adhoc)	Equipment to Establish Social Lab in the Institution	One Year	Punjab University	1,50,000/-
5	Ms. Afifa Anjum Lecturer	Identification and Measurement of Signature Strengths in Youth and Training Program	One Year	Punjab University	1,25,000/-
6	Mr. Faiz Younas Lecturer	Development and Validation of Indigenous Organizational Conflict Management Scale	One Year	Punjab University	1,25,000/-

○ **Conferences, Seminars and Workshops, etc.** (Sponsors, oral Presentation + Post Presentation)

Prof. Dr. Rafia Rafique

- Presented at the 7th International Conference on Research in Education (ICORE 2019), organized by Institute of Education and Research, University of the Punjab, Lahore-Pakistan, held on November 19-21, 2019.
- Workshop on “Smoking Cessation: An Islamic Perspective” by Dr. Arshad Mahmood Director, York Psychological Services, Toronto, Canada. Fountain House on 28th November, 2019.



- Key note address delivered on “Suicide Prevention and Rehabilitation in Muslim Perspective”. 15th National Psychological Conference Society for Advancement of Muslim Psychology held on December 11th 2019.
- National Conference Qualitative Psychology NCQP 2020 – 5th March 2020 Department of Behavioral Sciences, S3H, NUST, H-12, Islamabad.
- Workshop conducted on “Say No to Bullying” (17th June 2020) at Institute of Applied Psychology. Punjab University Lahore.
- Workshop conducted on “Mass Awareness Campaign Adolescents and Suicide” (28th July 2020) at Institute of Applied Psychology, PU.
- Workshop conducted on “How to Remain Positive Amid Difficulties” (8th October 2020) at Institute of Applied Psychology, University of the Punjab.
- Workshop conducted on “How to Handle Fear, Anxiety and Stress in This Pandemic Situation?” (6th April 2020) at Institute of Applied Psychology, University of the Punjab, Lahore.
- Workshop conducted on “Mind Reframing and Mindfulness to Manage Pandemic Induced Mind States and Psychological Distress: Holistic Approach Paradigm” (10th April 2020) at the Institute of Applied Psychology. University of the Punjab, Lahore.
- Workshop conducted on “How to Manage Anxiety during COVID-19” (11th April 2020) at the Institute of Applied Psychology, University of the Punjab, Lahore.
- Workshop conducted on “Working Efficiently from Home” (14th April 2020) at the Institute of Applied Psychology, PU, Lahore.
- Workshop conducted on “Helpline Tips to Deal with COVID-19 Stress: A Psychological Guide” (15th April 2020) at the Institute of Applied Psychology, University of the Punjab, Lahore.
- Workshop conducted on “Finding True Lasting Happiness Amid Difficulties” (17th April 2020) at the Institute of Applied Psychology, University of the Punjab, Lahore.
- Workshop conducted on “Parenting Tips in Current Scenario of Lockdown” (20th April 2020) at the Institute of Applied Psychology, University of the Punjab, Lahore.
- Workshop conducted on “Dealing with Grief and Loss-During COVID-19 Pandemic” (23rd April 2020) at the Institute of Applied Psychology, University of the Punjab, Lahore.
- Workshop conducted on “Our Mental Health in times of COVID-19.” (2nd May 2020) at the Institute of Applied Psychology. University of the Punjab, Lahore (Source person from the Department of Psychiatry, Michigan State University, USA.).
- Workshop conducted on “Psychosis in Children and Adolescents” (9th May 2020), Institute of Applied Psychology, University of the Punjab, Lahore (Resource person from the Department of Psychiatry, University of Toronto).
- Workshop attended on “Physical Distancing - The Real Meaning” Source person from the Punjab Institute of Cardiology Lahore. (12th June 2020).
- Workshop attended on “Empathizing and Supporting elderly during Covid-19” Resource person from the Prince Sultan University Riyadh KSA (24th June 2020).
- Workshop Attended on “Healthy Lifestyle in Preventing and Management of COVID-19 Infection Pandemic Globally” Resource person from the department of Tele Global Health Center (12th July 2020).



- Workshop Attended on “Psychoanalysis in modern mental health practice” Resource person from the University of Manchester (UK), (16th August 2020).
- Workshop attended on “Role of Religion and Spirituality in Mental Wellbeing” conducted by the Famous Religious Scholar (28th August 2020).
- Workshop attended on “Lessons Learned from the Pandemic: A Journey Towards New Horizon” Resource person from the Monash University, (4th September 2020).
- Workshop attended “Maximizing Quality of Life during COVID” at the Institute of Applied Psychology Punjab University Lahore (6th October 2020).
- Workshop attended on “Mental Health Challenges in Prisoners and Death Penalty”. Resource person belonging Rashid Latif Medical College (6th October 2020).
- Workshop attended on “Difficulties of Children with Disabilities Amid Covid-19 Pandemic” at Institute of Applied Psychology Punjab University Lahore (7th October 2020).
- Workshop attended “Lifestyle Modification and Response Shift Process Amid COVID-19” Resource person from the Safe City Authority (7th October 2020).
- Workshop attended “New Norms, Post-COVID-19 World” At Institute of Applied Psychology Punjab University Lahore (8th October 2020).
- Workshop attended “Positive Emotions and Wellbeing” At Institute of Applied Psychology Punjab University Lahore (9th October 2020).
- Workshop attended on “How to Manage Obsessive Thoughts.” Resource person from the Institute of Clinical Psychology, University of the Karachi (9th October 2020).
- Workshop attended on “Breast Cancer Awareness Breast Cancer: Some Cross Cultural Issues”. Resource person from the English Speaking Cancer Association, Switzerland. (27th October 2020).

Dr. Fatima Kamran

- Oral Presentation at 5th International Conference in National University of Science and Technology (NUST) held on 4-5th March, 2020.
- Attended E-conference organized by ICPY, UMT on COVID-19: The Changing Horizons (Inaugural, Symposium & International Talks) on 20th July, 2020.
- Attended “15th National Muslim Psychological Conference” organized by Society for Advancement of Muslim Psychology at Fountain House Lahore December, 2019.

○ **Research Journals Publications**

List of the Papers published in Research Journals by the Faculty Members of the Institute is as under:

Sr. No.	Name of Faculty Member/Authors	Title of Research Paper	Name of Publishing Journal	Volume No./ Issue No.
1	Prof. Dr. Rafia Rafique, Amina Shahid, & Zainab Javed	Social comparison, Envy and Indirect Aggression Amongst High Facebook Users.	Pakistan Journal of Medical & Health Sciences.	Vol.14 No.3



2	Prof. Dr. Rafia Rafique, Ghulam Ishaq, Fatima Kamran, & Shiza Sheerazi	Impact of Psycho-Social Factors on Non-Adherence A Case Study of Chronic Kidney Disease (CKD).	Journal of Liaquat University of Medical and Health Sciences.	Vol.19 No.2
3	Prof. Dr. Rafia Rafique, Afifa Anjum & Fatim Kamran	Uncertainty, Fear of Dengue, and Practice of Preventive Measures: A Community-Based Survey in Lahore.	Khyber Medical University Journal.	Vol.12 No 3
4	Prof. Dr. Rafia Rafique & Ghulam Ishaq	The present study was intended to find the impact of perceived barriers in participation of leisure time physical activity	Journal of Pakistan Psychiatric Society.	Vol. 17 No. 3
5	Prof. Dr. Rafia Rafique & Afsheen Masood	Perspectives from Key Stake Holders on Child Sexual Abuse in Pakistan: Glimpse of Potential Facilitators and Barriers.	Indian Journal of Public Health Research & Development	Vol. 11 No. 3
6	Prof. Dr. Farah Malik	Experiences of Cyber Harassment, Self-efficacy and Social Adjustment in Female University Students: Moderating Role of Self-Efficacy	Pakistan Journal of Psychological Research	Vol. 35, No.3, 523-544, https://doi.org/10.33824/PJPR.2020.35.3.28
7	Prof. Dr. Farah Malik	Development and Validation of Psychological Skills Scale for Team Sports	Pakistan Journal of Psychological Research	34 (4), 819-833.
8	Dr. Fatima Kamran, Masood, A., Sulman, M., Ashraf, F., & Arshad, A.	Contours of Positivity as Determinants of Maternal Psychological Well-Being in Pakistani Children with and without Hearing Impairment	International Journal of Disability, Development and Education (International Journal)	67
9	Dr. Fatima Kamran & Ishaq, G., Rafique, R., & Sheerazi, S.	Impact of Psychosocial Factors on Non-Adherence: A Case Study of Chronic Kidney Disease (CKD)	Journal of Liaquat University of Medical and Health Sciences	Vol.19 No.2
10	Dr. Fatima Kamran & Masood, A., Sulman, M., Ashraf, F.	Belief System as Determinants of Treatment Outcome in Low Back Pain Patients	Journal of Islamic International Medical Colleg	15
11	Dr. Fatima Kamran & Anjum, A., Rafique, R.	Uncertainty in relation to Dengue Fever, fear and practice of preventive measures: A community survey in Lahore, Pakistan	Khyber Medical University Journal	Vol.12 No 3
12	Dr. Saima Ghazal & Waheed, I.	Increasing Emotional Intelligence: An Instructional Module for Adolescents	FWU Journal of Social Sciences	14 (2), 47-60



13	Dr. Saima Ghazal & Naqvi, S., Raza, M., Salehi, S., Kang, Z., & Teodoriu, C.	Simulation-based training to enhance process safety in offshore energy operations: Process tracing through eye-tracking	Process Safety and Environmental Protection	62
14	Dr. Saima Ghazal & Muhammad, A., Kazim, M., Idrees, M., & Zaheer, U	Optimistic Bias about COVID-19 Infection Susceptibility across Demographics in Pakistan	Journal of Research in Psychology	2 (2), 19-23
15	Dr. Saima Ghazal & Riaz, S.	Are We Raising Future Leaders? Parenting Styles and Leadership Traits in Adolescent	Journal of Social Sciences and Humanities	28 (1), 19-34
16	Dr. Afifa Anjum & Kathryn V. Walter, Daniel Conroy-Beam, David M. Buss	Sex Differences in Mate Preferences Across 45 Countries: A Large-Scale Replication	Psychological Science	Vol. 31 No.4 408-423
17	Dr. Afifa Anjum, & Marta Kowal, Piotr Sorokowski, Agnieszka Sorokowska, Małgorzata Dobrowolska, Katarzyna Pisanski, Anna Oleszkiewicz,, Toivo Aavik, Grace Akello, Charlotte Alm, Naumana Amjad.	Reasons for Facebook Usage: Data from 46 countries	Frontiers in Psychology	
18	Dr. Afifa Anjum & Naumana Amjad	Values in Action Inventory of Strengths (VIA-IS): Translation and Validation in Urdu Language	Pakistan Journal of Psychological Research	
19	Dr. Afifa Anjum & Fatim Kamran, Rafia Rafique	Uncertainty, Fear of Dengue, And Practice of Preventive Measures: A Community-Based Survey In Lahore, Pakistan	Khyber Medical University Journal	Vol.12 No 3
20	Dr. Afifa Anjum & Zehra Keshf	Ostracism, Personality and Workplace Deviant Behaviors in Employees of Private Organization	Journal of Behavioural Sciences	Vol. 30, No.1, 4-23

RESEARCH COLLABORATION

○ Indigenous

- PHEC Research Grant for Indigenous Post-Doctoral Fellowship Program (IPDFP) awarded to Dr. Rafia Rafique, Associate Professor (Principal Investigator), Institute of Applied Psychology, University of the Punjab, Lahore (continued).

○ Foreign Linkages

The Institute has foreign academic linkage with:

- Institute has academic linkage with St. Andrew's University, UK.
- International Council of Professional Therapists (UK).
- Children and War Foundation, Bergen, Norway.



○ **Funding Grants for R&D**

Every year; a huge amount is being spent on Research and Development (R&D). These funds are provided by the University of the Punjab, Lahore and Higher Education Commission (HEC).

INSTITUTE OF BIOCHEMISTRY & BIOTECHNOLOGY

○ **R&D-An Overview**

The faculty of IBB is enthusiastically pursuing research projects of national interests mainly revolving around recombinant production of interleukins, interferons, colony stimulating factors etc. in bacterial and yeast-based expression systems for analyses applications; implementing cell free/circulating nucleic acids (including DNA, RNA, microRNA) and proteins in diagnosis and prognosis of different pathological states; investigating endocytic role of human small GTPase Rab28; purification and applications of industrially important enzymes; nanotechnology-based detection of allergens in local environment; linkage studies of autosomal recessive primary microcephaly in Pakistani kindred; characterization of BCR-ABL in CML patients etc. During this year, the Institute's faculty has contributed over 25 research and review articles with impact factor ~65. The details are herebelow:

○ **Projects**

Dr. Saima Sadaf was awarded a highly competitive research grant of worth Rs. 5.5 million from HEC under the National Research Program for Universities (NRPU) on research project entitled "Screening of Immunomodulatory Cytokines and Production of Dual-Property Anti-Inflammatory Biopharmaceutical for Rheumatoid Arthritis". Moreover, eight faculty members received research grants (0.15-2.0 million) from University of the Punjab, to strengthen the research activities of the Institute.

○ **Publications**

Sr.	Faculty Name	Article Title	Journal with year
1	Dr. Saima Sadaf	Theranostics system caged in human serum albumin as a therapy for breast tumors	Journal of Materials Chemistry B. (UK) (2020)
2	Dr. Saima Sadaf	Impact of IL-17F 7488T/C functional polymorphism on progressive rheumatoid arthritis: novel insight from the molecular dynamic simulations.	Immunological Investigations, 1-11. (2020).
3	Dr. Saima Sadaf	SUMO-fusion and autoinduction-based combinatorial approach for enhanced production of bioactive human interleukin-24 in Escherichia coli.	Applied Microbiology and Biotechnology, 104(22), 9671-9682. (2020).
4	Dr. Saima Sadaf	Up-regulated expression of calcium dependent annexin A6: A potential biomarker of ovarian carcinoma	Proteomics– Clinical Applications (Germany) (2020)



5	Dr. Amtul Jamil Sami	Characterisation and coagulant activity screening of fractionated water-soluble seed proteins from <i>Moringa oleifera</i> .	Materials Today: Proceedings. (2020).
6	Dr. Mahjabeen Saleem	Analysis of remediation potential of whole bacterial cells on wastewater decolourisation and detoxification.	Biocatalysis and Agricultural Biotechnology, 101557. (2020).
7	Dr. Mahjabeen Saleem	A Putative Prophylactic Solution for COVID-19: Development of Novel Multi-epitope Vaccine Candidate against SARS-COV-2 by Comprehensive Immunoinformatic and Molecular Modelling Approach.	Biology. 9, 296, (2020)
8	Dr. Mahjabeen Saleem	Paromomycin: A potential dual targeted drug effectively inhibits both spike (S1) and main protease of COVID-19.	International Journal of Infectious Diseases 98, 166–175, (2020)
9	Dr. Zahoor Samra	Engineering Quantum Dot (Cadmium Sulfide) on Antibodies for Fluoroimmunoassays.	Journal of Nanomaterials, 2020.
10	Dr. Zahoor Samra	Cloning and Heterologous Expression of Hepatitis B Virus Pre-Surface Antigen 1.	Microbiology and Virology, 35(2), 112-116. (2020).
11	Dr. M. Imtiaz	Challenges for biosimilars: focus on rheumatoid arthritis.	Critical Reviews in Biotechnology, 1-33. (2020).
12	Dr. M. Imtiaz	Development of piperidinyl dipyrrolopyridine-based dual inhibitors of Janus kinase and Bruton's tyrosine kinase: a potential therapeutic probability to deal with rheumatoid arthritis.	Journal of Molecular Modeling, 26(9), 1-18. . (2020).
13	Dr. M. Imtiaz	In-Silico Development of 1, 7-Dihydrodipyrrolo [2, 3-b: 3', 2'-e] Pyridine-3-carboxamide Derivatives as Candidate Janus Kinase Inhibitors to Control Rheumatoid Arthritis.	Punjab University Journal of Zoology, 35(1), 107-122. (2020)
14	Dr. M. Imtiaz	Dual targeting of Janus kinase and Bruton's tyrosine kinase: a new approach to control the pathogenesis of rheumatoid arthritis.	Pakistan Journal of Zoology (2020)
15	Dr. Saba Irshad	An update of pathogenic variants in ASPM, WDR62, CDK5RAP2, STIL, CENPJ, and CEP135 underlying autosomal recessive primary microcephaly in 32 consanguineous families from Pakistan.	Molecular genetics & genomic medicine, 8(9), e1408. (2020).
16	Dr. Saba Irshad	Mutational Analysis of Neuraminidase of Avian Influenza virus H9N2 Indicating the Cause of Hyper Pathogenicity in Poultry.	Pakistan Veterinary Journal, 40(2). (2020).



17	Dr. Saba Irshad	A Novel Homozygous Nonsense Variant in BICD2 Underlies Hereditary Spastic Paraplegia Complex Type.	Pakistan Journal of Zoology, 52(2), 727. (2020).
18	Dr. Moazzam Ali, & Dr. Zeeshan Mutahir	SHISA3, an antagonist of the Wnt/ β -catenin signaling, is epigenetically silenced and its ectopic expression suppresses growth in breast cancer.	Plos one, 15(7), e0236192. (2020).
19	Dr. Moazzam Ali	Modulation of ABCG2 surface expression by Rab5 and Rab21 to overcome multi drug resistance in cancer cells.	Xenobiotica 50, 988-996, (2020)
20	Dr. Moazzam Ali, & Dr. Zeeshan Mutahir	Cytotoxic effect of MTH1 gene silencing in gemcitabine resistant breast cancer cells	Pakistan Journal of Zoology 52 (6), 2145-51 (2020)
21	Dr. Moazzam Ali, & Dr. Zeeshan Mutahir	Rab21, an endocytic Rab GTPase, is involved in drug resistance in prostate cancer cells	Pakistan Journal of Zoology 52 (6), 2153-59 (2020)
22	Dr. Iram Gull	High yield expression, characterization, and biological activity of IFN α 2-T α 1 fusion protein.	Preparative Biochemistry & Biotechnology, 50(3), 281-291. (2020).
23	Ms. Beenish Maqsood	Characterization of a thermostable, allosteric L-asparaginase from Anoxybacillus flavithermus.	International Journal of Biological Macromolecules. (2020).
24	Dr. M. Khurshid	First Report of <i>Rhizoctonia solani</i> AG-4HG1 infecting Fagopyrum tataricum (Tartary buckwheat) in China	Plant Disease (2020)
25	Dr. M. Khurshid	Long non-coding RNAs: emerging players regulating plant abiotic stress response and adaptation	BMC plant Biology (2020)
26	Dr. M. Shahbaz	Benchmarking of scaling and fouling of reverse osmosis membranes in a power generation plant of paper and board: An industrial case study.	Int. J. Environmental Sciences and Technology. (2020)
27	Dr. M. Shahbaz	High Yield Expression, Characterization and Biological Activity of IFN α 2-T α 1 Fusion Protein.	Preparative Biochemistry & Biotechnology, 50, 281-291(2020)
28	Dr. M. Shahbaz	Hepatoprotective role of swimming against arsenic induced oxidative stress in mice.	Journal of King Saud University-Science, 32, 822–827 (2020).

○ **Conferences/ Seminars/ Workshops etc.**

International Conference “Recent Innovations in Molecular Sciences” November 06-08, 2019, was jointly organized by departments the Faculty of Life Sciences, Pharmacy and CEESlife



science departments of Punjab University; IBB being an active organizer and host. The conference was attended by eminent scientists and researchers from within the country and abroad (UK, USA, China, Australia, Malaysia, Iran, Japan, Germany, etc.) opening up new avenues for young scientists and institutions for collaborative research and students' exchange.

RESEARCH COLLABORATION

○ Indigenous

- Centre of Excellence in Molecular Biology (CEMB)
- PCSIR laboratories Lahore
- Inmol Hospital Lahore
- HEJ Research Institute of Chemistry,
- Sheikh Zayed Hospital Lahore
- Shoukat Khanum Hospital Lahore
- Forensic Laboratory Lahore

SCHOOL OF BIOLOGICAL SCIENCES

○ Research & Development

The School of Biological Sciences, now in the 19th year of its existence, has made tremendous progress not only in terms of establishing and developing first rate infrastructure in the fields of Molecular Biology, Enzymology and Protein Chemistry, but also making significant advancement in various research projects initiated by the students for their Ph.D. degrees. All these research projects fall under the category of hard core science trying to unravel vital biological processes with strongly implicating extrapolations towards providing solutions to various economic problems of the country.

○ Projects

S.N.	Name of Researcher/ Sponsoring Agency	Title of research project with duration	Financial support	Status
1.	Prof. Dr. Naeem Rashid: Higher Education Commission	Discovering missing phosphofructokinase in hyperthermophilic archaeon <i>Pyrobaculum calidifontis</i>	Rs.6.824 million	Completed
2.	Prof. Dr. A. R. Shakoori: Pakistan Academy of Sciences	Osteogenic potential of local herb, <i>Cissus quadrangularis</i> : Development of potential drug for osteoporosis 2016-20	RS.2.499 million	Completed
3.	Prof. Dr. M. Waheed Akhtar Higher Education Commission	Engineering enzymes for plant biomass saccharification 2014-2018	RS.8.395 million	Completed
4.	Prof. Dr. M. Waheed Akhtar: Pakistan Academy of Sciences	Designing fusion antigens for diagnostic and prophylactic applications in tuberculosis 2018-2020	RS.2.48 million	Completed



5.	Dr. Sadaf Naz Higher Education Commission	Genetic analysis of disease causing genes for glaucoma in Pakistani population. 2016-19	Rs. 3.1652 million	Ongoing
6.	Dr. Sadaf Naz Higher Education Commission	Genetics of recessively inherited stable or progressive hearing loss in Pakistan. 2016-19	Rs. 3.5926 million	Ongoing
7.	Dr. Sadaf Naz Higher Education Commission	Genetic studies of neurological movement disorders and related syndromes 2015-18	RS. 3.1 million	Completed
8.	Dr. Sadaf Naz University of the Punjab	Identification of genes for skeletal dysplasia syndromes in families from Pakistan. 2017-2018	Rs. 200,000/=	Completed
9.	Dr. Sadaf Naz Deutsche Forschungsgemeinschaft, Germany, LO 1555/8-1,	Molecular characterization of complex movement disorders with predominant dystonic features in consanguineous families. 2015-2018	€152,240.	Completed
10.	Dr. Sadaf Naz University of Minnesota, USA (Principal Investigator)	Molecular characterization of Psychotic disorders in Pakistan. 2016-2017	psych \$4100	Completed
11.	Dr.QA Gardner NRPU HEC, Pakistan	Studies on serum amyloid-P component in relation to its binding with physiologically important fibril-forming proteins 2019-2022	Rs. 2,543,374	Ongoing
12.	Dr.QA Gardner University of the Punjab	Rapid refolding of recombinant human insulin derivatives and their structural elucidation by proteomics. 2017-2018	Rs. 0.15 million	Completed
13.	Dr. Uzma Qaisar Higher Education Commission	Controlling the virulence of pathogenic bacteria by local medicinal plants. 2017-2020	RS. 1.93 million	Ongoing
14.	Dr. Uzma Qaisar Higher Education Commission	Testing the potential of wrinkled Transcription factor in fiber quality improvement of cotton. 2018-2021	RS. 2.45 million	Ongoing



15.	Dr. Uzma Qaisar Higher Education Commission	Identification of Molecular Factors Required for Regeneration of Cotton 2017-2020	RS. 3.45 million	Ongoing
16.	Dr. Naveed Shahzad Higher Education Commission	Investigation of therapeutic potential of indigenous Euphorbiaceous plants against breast cancer by targeting CXCL1 & 2 chemokines 2017-2020	RS. 3.995 million	Ongoing
17.	Dr. Naveed Shahzad Punjab University Grant	Phylogenetic analysis of Merkel cell polyomavirus and investigation of its co-infection in HBV/HCV positive patients of Pakistan. 2017-2018	RS. 0.150 million	Completed
18.	Dr. Naveed Shahzad NRPU HEC, Pakistan	Mining of novel epigenetically regulated tumor suppressor genes to be used as biomarkers for early breast cancer diagnosis. 2018-2021	RS. 5.00 million	Ongoing
19.	Dr. Nasir Ahmad Higher Education Commission	Process scale up and optimization for synthesis of thermostable industrial enzymes (TDF02-069). 2018-2020	Rs. 14.0 Million	Ongoing
20.	Dr. Nasir Ahmad University of the Punjab, Lahore	Enzymatic Synthesis of High Protein Flour From Damaged Rice. (2017-2018)	Rs. 0.15 Million	Completed
21.	Dr. Nasir Ahmad Higher Education Commission	Optimization of simultaneous liquefaction and saccharification: a novel process developed by using newly discovered thermoacidophilic pullulanase (8527/Punjab/NRPU/R&D/HEC/2017).	Rs. 7.379 Million	Ongoing
22.	Dr. Saima Iftikhar Higher Education Commission	Characterization of immunogenic regions of dengue virus for potential vaccine. 2018-2021	RS. 6.179 million	Ongoing
23.	Dr. Muhammad Farhan ul Haque Higher Education Commission	National Research Program for Universities – 2020-23	RS. 10.9 millions	Ongoing



24.	Dr.Mehwish Aslam Higher Education Commission	Production and characterization of a recombinant DNA ligase in E. coli from <i>Pyrobaculum calidifontis</i> , 2018-19	RS. 0.5 millions	Ongoing
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○ **Publications:** Books/Edited

- Muhammad Sulaiman Saeed, Masood Ahmed Siddiqui and Naeem Rashid (2020) Effect of Y50H and S187G substitutions on thermostability and exonuclease activity of TK1646 from *Thermococcus kodakarensis*. Protein Expression and Purification. <https://doi.org/10.1016/j.pep.2020.105799>
- Huma Naz, Qamar Bashir, Naeem Rashid and Hafiz Naveed Shahzad (2020) Isocitrate dehydrogenase 1 gene variants analysis of glioma patients from Pakistan. Ann. Hum. Genet. 1-7. DOI: 10.1111/ahg.12409.
- Sabeel un Naeem, Nasir Ahmad and Naeem Rashid* (2020) Pcal_0842, a highly thermostable glycosidase from *Pyrobaculum calidifontis* displays both α -1,4- and β -1,4 glycosidic cleavage activities. Int. J. Biol. Macromol. 165B:1745-1754. <https://doi.org/10.1016/j.ijbiomac.2020.10.012>
- Sumaira Mehboob, Nasir Ahmad, Sajida Munir, Ramzan Ali, Hooria Younas, Naeem Rashid* (2020) Gene cloning, expression enhancement in *Escherichia coli* and biochemical characterization of a highly thermostable amylomaltase from *Pyrobaculum calidifontis*. Int. J. Biol. Macromol. 165A:645-653. <https://doi.org/10.1016/j.ijbiomac.2020.09.071>
- Anam Iftikhar, Azka Asifa, Asma Manzoor, Muhammad Azeem, Ghulam Sarwar, Naeem Rashid, Uzma Qaisar* (2020) Mutation in pvcABCD operon of *Pseudomonas aeruginosa* modulates MexEF-OprN efflux system and hence resistance to chloramphenicol and ciprofloxacin. Microb. Pathog. 149: 104491. <https://doi.org/10.1016/j.micpath.2020.104491>
- Ghazaleh Gharib, Shahid Mahmood Chohan, Naeem Rashid, Muhammad Akhtar (2020) Heterologous gene expression and characterization of recombinant aspartate aminotransferase from *Geobacillus thermopakistaniensis*. Protein Expression and Purification. 175: 105709. <https://doi.org/10.1016/j.pep.2020.105709>
- Khadija Rafiq, Muhammad Sohail Akram, Muhammad Shahid, Uzma Qaisar, and Naeem Rashid* (2020) Enhancement of salt tolerance in maize (*Zea mays* L.) using locally isolated *Bacillus* sp. SR-2-1/1. Biologia 75:1425–1436. (doi.org/10.2478/s11756-020-00435-9)
- Kanwal Nisa, Sadaf Ashraf, Masood Ahmed Siddiqui, Naila Taj, Habib-Ur-Rehman, Arifa Bano and Naeem Rashid (2020) Purification and Characterization of a Thermostable Pyruvate Ferredoxin Oxidoreductase/Pyruvate Decarboxylase from *Thermococcus kodakaraensis*. Pakistan J. Zool. 52: 1149-1156. DOI: <https://dx.doi.org/10.17582/journal.pjz/20191018081056>
- Shahid Mahmood Chohan, Muhammad Sajed, Sabeel un Naeem, and Naeem Rashid (2020) Heterologous gene expression and characterization of TK2246, a highly active and thermostable plant type L-asparaginase from *Thermococcus kodakarensis*. Int. J. Biol. Macromol. 147: 131–137.



- Sitara Nasar, Naeem Rashid and Saima Iftikhar (2020) Dengue proteins with their role in pathogenesis, and strategies for developing an effective anti-dengue treatment: A Review. *J. Med. Virol.* 92: 941–955. doi: 10.1002/jmv.25646
- Anam Tariq, Alina Gul, Majida Atta Muhammad, Samia Falak and Naeem Rashid (2020) *Escherichia coli* signal peptidases cleave the signal sequence of TK0522, a carbohydrate esterase from hyperthermophilic archaeon *Thermococcus kodakarensis*. *Pak J Zoo.* 52: 789-792. DOI: <https://dx.doi.org/10.17582/journal.pjz/20191109101144>
- Muhammad Arif, Qamar Bashir, Masood Ahmad Siddiqui and Naeem Rashid (2020) Molecular characterization of a highly efficient and thermostable phosphoribosyl anthranilate isomerase from *Geobacillus thermopakistanensis*. *Protein Expr Purif.* 166:105523. <https://doi.org/10.1016/j.pep.2019.105523>
- Muhammad Sulaiman Saeed and Naeem Rashid* (2019) Characterization of TK1646, a highly thermostable 3'–5' single strand specific exonuclease from *Thermococcus kodakarensis*. *Int. J. Biol. Macromol.* 140:1194-1201 <https://doi.org/10.1016/j.ijbiomac.2019.08.150>
- Abeera Shaeer, Mehwish Aslam and Naeem Rashid (2019) A highly stable manganese-catalase from *Geobacillus thermopakistanensis*: molecular cloning and characterization. *Extremophiles* 23:707–718. <https://doi.org/10.1007/s00792-019-01124-5>
- Hira Muzammal, Qurat ul Ain, Muhammad Sulaiman Saeed and Naeem Rashid (2019) Gene cloning and characterization of Tk1281, a flap endonuclease 1 from *Thermococcus kodakarensis*. *Folia Microbiologica* 65: 407-415. <https://doi.org/10.1007/s12223-019-00745-9>.
- Naseema Azim, Quratulann Afza Gardner, Naeem Rashid, Muhammad Akhtar (2019) Mechanistic studies on *Pyrobaculum calidifontis* porphobilinogen synthase (5-aminolevulinic acid dehydratase). *Bioorg. Chem.* 91:103117. <https://doi.org/10.1016/j.bioorg.2019.103117>.
- Nisar Ahmed Shakir, Tahira Bibi, Mehwish Aslam and Naeem Rashid (2019) Biochemical characterization of a highly active ADP-dependent phosphofructokinase from *Thermococcus kodakarensis*. *J. Biosci. Bioeng.* 129: 6-15. <https://doi.org/10.1016/j.jbiosc.2019.06.014>
- Naeem Rashid and Mehwish Aslam (2020) An overview of twenty-five years of research on *Thermococcus kodakarensis*, a genetically versatile model organism for archaeal research. *Folia Microbiologica*. 65: 67-78. <https://doi.org/10.1007/s12223-019-00730-2>
- Iqra Aroob, Nasir Ahmad, Mehwish Aslam, Abeera Shaeer, Naeem Rashid (2019) A highly active α -cyclodextrin preferring cyclomaltodextrinase from *Geobacillus thermopakistanensis*. *Carbohydr Res.* 481:1–8. doi: 10.1016/j.carres.2019.06.004
- Sohaib Waraich, Nasir Ahmad, Usman Hameed, Saleem Haider & Naeem Rashid (2019) Molecular identification and characterization of lactic acid producing bacterial strains isolated from raw and traditionally processed foods of Punjab, Pakistan. *Pak. J. Zoo.* 51: 1145–1153. DOI: <http://dx.doi.org/10.17582/journal.pjz/2019.51.3.1145.1153>



- Anam Tariq, Alina Gul, Majida A. Muhammad, Naeem Rashid & Masood A Siddiqui (2019) Recombinant Tk0522, a carbohydrate esterase homologue from *Thermococcus kodakarensis*, does not require a signal sequence for translocation to periplasmic space in *Escherichia coli*. *Biologia* 74:899–904. <https://doi.org/10.2478/s11756-019-00243-w>
- Naveed Shahzad, Iqra Hussain, Usman Shah Gilani, Asima Tayyeb, Muhammad Amir Aslam, Muhammad Khurshid, Umair Hassan, Fareeda Tasneem, Muhammd Umer & Naeem Rashid (2019) Merkel cell polyomavirus DNA sequences in the blood of healthy population of Pakistan. *Future Microbiology* <https://doi.org/10.2217/fmb-2018-0314>
- Mehwish Akram and Naeem Rashid (2019) Inwardly rectifying potassium channels in *Drosophila* regulate the sleep/wake behaviour through PDF-neurons. *Pak. J. Zoo.* 51: 709-715
- Shahid Mahmood Chohan, Naeem Rashid, Muhammad Sajed and Tadayuki Imanaka (2019) Pcal_0970, an extremely thermostable L-asparaginase from *Pyrobaculum calidifontis* with no detectable glutaminase activity. *Folia Microbiologica* 64: 313-320. <https://doi.org/10.1007/s12223-018-0656-6>.
- Muhammad Arif, Naeem Rashid, Sumera Perveen, Qamar Bashir and Muhammad Akhtar (2019) Extremely stable indole-3-glycerol-phosphate synthase from hyperthermophilic archaeon *Pyrococcus furiosus*. *Extremophiles* 23: 69-77. <https://doi.org/10.1007/s00792-018-1061-4>.
- Saadia Basheer, Naeem Rashid, Muhammad Sohail Akram, and Muhammad Akhtar (2019) A highly stable laccase from *Bacillus subtilis* strain R5: Gene cloning and characterization. *Biosci. Biotech. Biochem.* 83(3):436-445 <https://doi.org/10.1080/09168451.2018.1530097>
- Gilani US, Memoona, Rasheed A, Shahid M, Tasneem F, Arshad MI, Rashid N, Shahzad N (2019) The implication of CRISPR/Cas9 genome editing technology in combating human oncoviruses. *J. Med. Virol.* 91:1-13. doi: 10.1002/jmv.25292
- Zulfikar, S., Shehzad, K., Tahir, S., Al-ghanim, K.A. and Shakoory, A. R., 2019. Dual role of multicopper oxidase of *Klebsiella pneumoniae* as a copper homeostatic element and novel alkaline laccase with potential application in green chemistry. *Pakistan J. Zool.*, 51:107-115.
- Khalid, A., Tayyab, M., Shakoory, A.R., Hashmi, A.S., Yaqub, T., Awan, A.R., Wasim, M., Firyal, S., Husain Z., and Rashid, N., 2019 a. Cloning, expression and characterization of highly active recombinant thermostable cellulases from *Thermotoga naphtholphilila*. *Pakistan J. Zool.*, 51:925-935.
- Khalid, A., Tayyab, M., Shakoory, A.R., Hashmi, A.S., Yaqub, T., Awan, A.R., Wasim, M., Firyal, S., Saeed, S., Husain Z., and Rashid, N., 2019b. Optimization of conditions for the maximal production of recombinant thermostable cellulases from *Thermotoga naphtholphilila* using *E. coli* BL21 codonPlus (DE3) as expression host. *Pakistan J. Zool.*, 51: 1371-1377.



- Aftab, S. and Shakoori, A.R., 2019. Low glucose availability alters the expression of genes involved in initial adhesion of human glioblastoma cancer cell line SF767. *J. cell. Biochem.* 2019; 1-16. DOI: 10.1002/jcb.28940
- Toor, R., Malik, S., Qamar, H., Batool, F., Tariq, M., Nasir, Z., Tassadduq, R., Lian, J.B., Stein, J.I., Stein, G.S. and Shakoori, A. R., 2019. Osteogenic potential of hexane and dichloromethane fraction of *Cissus quadrangularis* on murine pre-osteoblast cell line MC3T3-E1 (sub-clone 4). *J. cell. Physiol.* DOI:10.1002/jcp. 28869
- Nadeem, M.S., Razeeth, M., Choudhry, H.M.Z., Anwar, F., Zamzami, M.A., Murtaza, B.N., Al-. Abbasi, F.A.M., Khan, M.I. and Shakoori, A. R., 2019. LC-MS/MS based metabolic profiling of *Escherichia coli* under heterologous gene expression stress. *J. cell. Biochem.* DOI:10.1002/jcb.28962
- Murtaza, B.N., Chaudry, M.S., Nadeem, S.I., Nadeem, M.S., and Shakoori, A. R., 2019. Spotting rs112445441 in non-Hodgkin lymphoma: another clue for the context-dependent crosstalk between RAS-MAPK and P13K mediated pathways. *Pakistan J. Zool.*, DOI: <http://dx.doi.org/10.17582/journal.pjz/2019.51>
- Noreen, A., Rehman, A., Aftab, S. and Shakoori, A. R., 2019. Antiproliferative effect of oxidative stress induced by Tellurite in breast carcinoma cells. *J. Cancer Res. Pract.*, 6: 68-75. DOI: 10.4103/JCRP.JCRP_5_19
- Murtaza, B.N., Qayum, A., Nadeem, S.I., Al-maliki, N.A., Alamri, A., and Shakoori, A. R., 2019. Conformational changes in wild type KRAS induced by two novel variants p.E31K and p.G138V. *Pakistan J. Zool.*, 51: 0.791227-1233. IF for 2019
- Nadeem, M.S., Zamzami, M.A., Choudhry, H., Murtaza, B.N., Kazmi, I., Ahmad, H. and Shakoori, A.R., 2020. Origin, potential therapeutic targets and treatment of Cronovirus diseases (COVID-19). *Pathogens*, 9:307; doi:10.3390.pathogens9040307
- Feroz, A., Shakoori, F.R., Riaz, T. and Shakoori, A.R., 2020. Development of resistance in stored grain pest, *Trogoderma granarium* (Everts) against deltamethrin and its effective control by synergistic toxicity of bifenthrin and chlorpyrifos. *J. Stored Grain Res.*, <https://doi.org/10.1016/j.jspr.2020.101673>
- Khalid, Z., Yousaf, M.A., Khan, A., Shakoori, F.R., Munir, M. and Shakoori, A. R., 2020. Debunking Myths about COVID-19, Paranoiac Misconceptions, Recent Developments and its Current Stance. *Pakistan J. Zool.*, <https://dx.doi.org/10.17582/journal.pjz/20200608144416>
- Feroz, A., Shakoori, A.R. and Shakoori, F.R., 2020. Effect of Sublethal Doses of Bifenthrin and Chlorpyrifos Administered Alone and in Combinations on Esterases of Stored Grain Pest, *Trogoderma granarium*. *Pakistan J. Zool.*, <https://dx.doi.org/10.17582/journal.pjz/20200501083425>
- Tasneem, F., Shakoori, F.R., Ilyas, M., Shahzad, N., Potekhin, A., and Shakoori, A.R., 2020. Genetic diversity of *Paramecium* species on the basis of multiple loci analysis and ITS secondary structure models. *J. Cell. Biochem.*, 121:3837-3853. DOI: 10.1002/jcb.29546



- Munir, T., Javed, M., Tasneem, F., Aslam, B., Ali, M., Mutahir, Z., Ali, M.A., Umer M., Ahmad, M., Farooq, K., Hassan, U., Mustafa, T., Anjum, R.S., and Shakoori, A.R., 2020. SHISA3, an antagonist of the Wnt/ β -catenin signaling, is epigenetically silenced and its ectopic expression suppresses growth in breast cancer. PLoS ONE, <https://doi.org/10.1371/journal.pone.0236192>
- S Shahid, J Shaheen, W Shahid, MW Akhtar, S Sadaf (2019) mir-16-5p as a Suitable Reference Gene for Normalization of Quantitative Real Time PCR in Acute Lymphoblastic Leukemia. Pakistan Journal of Zoology 51 (2).
- J Shaheen, S Shahid, S Shahzadi, MW Akhtar, S Sadaf (2019) Identification of Circulating miRNAs as NonInvasive Biomarkers of Triple Negative Breast Cancer in the Population of Pakistan. Pakistan Journal of Zoology 51 (3), 118-124.
- Shahzadi Noreen, Qurratulann Afza Gardener, Iram Fatima, Saima Sadaf, and Muhammad Waheed Akhtar (2020) Upregulated expression of calcium dependent Annexin A6: A potential prognostic indicator of ovarian carcinoma. PROTEOMICS-Clinical Applications 14(2) 1900078.
- Mohsina Akhter, Shaista Arif, Aasia Khaliq, Zaib un Nisa, Imran H. Khan and Muhammad Waheed Akhtar (2020) Designing fusion molecules from antigens of Mycobacterium tuberculosis for detection of multiple antibodies in plasma of TB patients. Tuberculosis 124, 101981.
- Imran Ali, Hafiz Muzzammel Rehman, Muhammad Usman Mirza, M. Waheed Akhtar, Rehana Asghar, Muhammad Tariq, Rashid Ahmed, Fatima Tanveer, Hina Khalid, Huda Alghamdi, Matheus Froeyen (2020) Enhanced thermostability and enzymatic activity of Cel6A variants from Thermobifida fusca by empirical domain engineering . Biology 9, 214; doi:10.3390/biology9080214
- Ramzan M, Idrees H, Mujtaba G, Sobreira N, Witmer D, Baylor-Hopkins Center for Mendelian Genomics, Naz S (2019) Bi-allelic Pro291Leu variant in KCNQ4 leads to early onset non-syndromic hearing loss. Gene 705:109-112
- Ain NU, Iqbal M, Valta H, Emerling CA, Ahmed S, Makitie O, Naz S (2019) Novel variants in natriuretic peptide receptor 2 in unrelated patients with acromesomelic dysplasia type maroteaux Eur J Med Genet 62: (103554) 1-7
- Aslam F, Naz S (2019) Ataxia and dysarthria due to an ABCA2 variant: Extension of the phenotypic spectrum Park Rel Dis 64:328-331.
- Tariq H, Butt JU, Houlden H, Naz S (2019) Are some C19orf12 variants monoallelic for neurological disorders? Park Rel Dis 65:267-269.
- *Naz S, *Friedman TB [*corresponding authors] (2020) Growth factor and receptor malfunctions associated with human genetic deafness Clin Genet 97:138–155.
- Bashir R, Irfan B, Khalid M, Naz S, Saleem F Nouman U, Naz S (2020) Association of hepatocyte growth factor (HGF) gene polymorphisms with primary angle closure glaucoma from Lahore, Pakistani population J Pak Med Assoc 70:208-212.



- Shaukat M, Ishaq M, Muhammad N, Naz S (2020) RIN2 and BBS7 variants as cause of a coincidental syndrome Eur J Med Genet 63: (103755) 1-4.
- Yasin S, Mustafa S, Ayesha A, Latif M, Hassan M, Faisal M, Makitie O, Iqbal F, Naz S (2020) A novel homozygous missense variant in MATN3 causes spondylo-epimetaphyseal dysplasia Matrilin 3 type in a consanguineous family Eur J Med Genet 63: (103958) 1-5
- Arif B, Rasheed A, Kumar KR, Fatima A, Ali G, Wohler E, Sobriera N, Lohmann K, Naz S (2020) A novel homozygous KY variant causing a complex neurological disorder Eur J Med Genet 63: (104031) 1-4
- Ramzan M, Bashir R, Salman M, Mujtaba G, Sobreira N, Witmer D, Baylor-Hopkins Center for Mendelian Genomics, Naz S (2020) Spectrum of genetic variants in moderate to severe sporadic hearing loss in Pakistan Sci Rep 10: 11902 1-7
- Rasheed A, Gumus E, Zaki MS, Johnson K, Manzoor H, LaForce G, Ross D, McEvoy-Venneri J, Stanley V, Lee S, Virani A, Ben-Omran T, Gleeson JG, Naz S, Schaffer AE. [Naz S and Schaffer AE, corresponding authors] Bi-allelic TTC5 variants cause delayed developmental milestones and intellectual disability. J Med Genet Online first doi: 10.1136/jmedgenet-2020-106849
- Ain NU, Baroncelli M, Costantini A, Ishaq T, Taylan F, Nilsson O, Makitie O, Naz S Novel form of rhizomelic skeletal dysplasia associated with a homozygous variant in GNPAT1 J Med Genet Online first doi:10.1136/ jmedgenet-2020-106929
- Ain NU, Muhammad N, Dianatpour M, Baroncelli M, Iqbal M, Fard MAF, Bukhari I, Ahmed S, Hajipour M, Tabatabaie Z, Foroutan H, Nilsson O, Faghihi MA, Makitie O, Naz S Biallelic TMEM251 variants in patients with severe skeletal dysplasia and extreme short stature Hum Mutat Online first doi: 10.1002/humu.24139
- Exploring the nature of inclusion bodies by MALDI mass spectrometry using recombinant proinsulin as a model protein. Gardner Q.A., Hassan, N., Hafeez, S., Arif, M., Akhtar, M. International journal of Biological Macromolecules. 139:647-653. 2019. doi: 10.1016/j.ijbiomac.2019.07.131. Impact factor 4.784. (As a corresponding author)
- Waqar N, Amin Q, Munir T, Shahzad N, Mirza A, Ali A, Arshad MI. One Health case study of transmission dynamics and prevalence of methicillin-resistant Staphylococcus aureus at the equine-human interface. Tropical Animal Health and Production, 51 (7); 1927-1933 (2019).
- Hayat S, Siddique MH, Aslam B, Nadeem H, Ashraf A, Muhammad Saqalein M, Khurshid M, Shahzad N, and Muzammil S. Extended-Spectrum- β -Lactamase producing multidrug resistant Klebsiella pneumoniae isolates from pediatrics. Pakistan Journal of Zoology, 51(4); 1251-1257, (2019).
- Habib M, Bhatti S, Rehman S, Javeed N, Aslam MA, Shahzad N, Abbas Z. Hepatoprotective Role of Swimming against Arsenic Induced Oxidative Stress in Mice. Journal of King Saud University - Science, 32 (1), 822-827 (2019).



- Iqbal T, Rashid U, Shahzad N, Afroz A, Malik MF, Idrees M. Molecular detection of hepatitis E virus in layer chickens: a possible public health risk in Pakistan. *Pakistan Journal of Zoology*, 51(6); 2329-2335, (2019).
- Waheed A, Saleem S, Shahzad N, Akhtar J, Saeed M, Jameel I, Rasheed F, Jahan S. Prevalence of Extended spectrum- β -lactamases SHV and OXA producing gram negative bacteria at tertiary care hospital of Lahore, Pakistan. *Pakistan Journal of Zoology*, 51(6); 2345-2351, (2019).
- Siddique M, Shafique M, Mateen A, Shahzad N, Aslam B, Ahmad N, Qamar MU. Prevalence and genotypic analysis of Hepatitis C Virus isolated from Liver Center, Faisalabad, Pakistan. *Pakistan Journal of Zoology*. 52(1) :313-319, (2019).
- Tasneem F, Shakoori F, Shahzad N, Alexey P, Ilyas M. Genetic diversity of Paramecium species on the basis of multiple loci analysis and ITS secondary structure models. *Journal of Cellular Biochemistry* 121 (9) 3837-3853 (2019)
- Hussain I, Tasneem F, Gilani US, Arshad MI, Haque MF, Abbas Z, Umer M, and Shahzad N*. Human BK and JC Polyomavirus: Molecular insights and prevalence in Asia. *Virus Research*. 278: 197860, (2020).
- Aslam B, Chaudhry TH, Arshad MI, Farooq RA, Shahzad N, Yasmeen N, Idris A, Rasool MH, Khurshid M, Ma Z, Call DR and Baloch Z. The first blaKPC-2 harboring Klebsiella pneumonia ST258 strain isolated in Pakistan. *Microbial Drug Resistance*. 26(7):783-786 (2020).
- Fatima M, Syed M, Zeeshan R, Shakoori F, Shahzad N, Ali M and Mutahir Z. Cytotoxic effect of MTH1 gene silencing in gemcitabine resistant breast cancer cells. *Pakistan journal of Zoology*, 52(6) 2145-2151 (2020).
- Yousaf M, Shahzad N, Mutahir Z, ALI M. Rab21, an endocytic Rab GTPase, is involved in drug resistance in prostate cancer cells. *Pakistan journal of Zoology*, 52(6): 2153-2159, (2020).
- Shahzad N, Munir T, Javed M, Tasneem F, Aslam B, Ali M, Mutahir Z, Ali MA, Umer M, Ahmad M, Farooq K, Hassan U, Mustafa T, Anjum RS and Shakoori AR. SHISA3, an antagonist of the Wnt/ β -catenin signaling, is epigenetically silenced and its ectopic expression suppresses growth in breast cancer. *PLoS One*. 21; 15(7): e0236192.doi: 10.1371/journal.pone.0236192 (2020).
- Sadia Perveen, Hanfa Ashfaq, Saira Ambreen, Isbah Ashfaq, Asima Tayyeb, Citrullus colocynthis arrests cell cycle in human breast cancer cells through expression regulation of Cyclin-CDK Inhibitors. *Saudi Journal of Biological Sciences* (2020), <https://doi.org/10.1016/j.sjbs.2020.11.029>.
- Faheem Hadi, Sana Javaid Awan, Asima Tayyeb, Tahir Maqbool, Somia Shehzadi, Sabeen Malik, Humera Kausar and Arif Malik, Hepato-protective role of itraconazole mediated cytochrome p450 pathway inhibition in liver fibrosis. *Pakistan Journal of Pharmaceutical Sciences* 33(6 Suppl): 2751-2758, (2020).



- Rabia Mehmood, Nadeem Sheikh, Muhammad Babar Khawar, Muddasir Hassan Abbasi, Asima Tayyeb, Isbah Ashfaq, Maryam Mukhtar, and Naz Fatima, High-Fat Diet Induced Hedgehog Signaling Modifications during Chronic Kidney Damage. *BioMed Research International*, Article ID 8073926, (2020).
- Zuriat Jabbar, Ikram-ul-Haq, Hamid Mukhtar, Asima Tayyeb, Asma Manzoor, NGS to elucidate adaptive stress response and plantaricin genes among *Lactobacillus plantarum* strains, *Future Microbiology* 15(5), (2020), <https://doi.org/10.2217/fmb-2019-0158>.
- Asima Tayyeb, Serum biomarkers for early breast cancer diagnosis. *International Journal of Current Research* 12(11): 14766-14771, (2020).
- Asima Tayyeb, Tamoxifen resistance mechanisms in breast cancer treatment. *World Journal of Advanced Research and Reviews* 08(02): 224–232, (2020).
- Muhammad Shahjahan, Masroor Ellahi Babar, Asima Tayyeb and Tanveer Hussain4, Breast Cancer and Chemotherapeutic Drug Resistance: A Treatment Challenge. *Journal of Cancer Research, Reviews and Reports* 2(2): 1-5, (2020).
- Ambreen Kanwal, Asima Tayyeb*, Ecological Dynamics: An Inspiration for Triggering Epilepsy. *Journal of Biomedical Research & Environmental Sciences* 6: 092-102, (2020).
- Asma Manzoor, and Asima Tayyeb. "Functional probiotic attributes and gene encoding plantaricin among variant *Lactobacillus Plantarum* strains." *Microbial pathogenesis* 131: 22-32, (2019).
- Usman Akhtar, Mobasher Ahmed, Asima Tayyeb, Umara Shehzad, and Gibran Ali, Hepatoprotective effect of ketoconazole in chronic liver injury model. *Pakistan Journal of Pharmaceutical Sciences* 32: 1033-1042, (2019).
- Zakia Kanwal, Muhammad Akram Raza, Saira Riaz, Saher Manzoor, Asima Tayyeb, Imran Sajid, and Shahzad Naseem. "Synthesis and characterization of silver nanoparticle-decorated cobalt nanocomposites (Co@ AgNPs) and their density-dependent antibacterial activity." *Royal Society Open Science* 6, no. 5 182135, (2019).
- Shagufta Kamal, Naheed Akhter, Nazia Yaqoob, Uzma Qaisar, Ismat Bibi, Saira Shahzadi, Aqsa Nadeem, Muhamamd Azeem. 2020. Quantification and characterization of Myo-inositol in locally available peanuts and pine nuts in Pakistan. *Pakistan Journal of Pharmaceutical Sciences*. Vol.33 (3): 1289-1295.
- Asma Manzoor, Uzma Qaisar, Zahida Parveen, Saima Siddique, Andleeb Anwar Sardar, Nabila Ishaq. 2020. In vitro anticancer and antioxidant potential of cestrum species. *Pakistan Journal of Pharmaceutical Sciences*. Vol.33 (4): 147-153
- Mahnoor Imran, Maria Butt, Abdul Hannan, Asma Manzoor and Uzma Qaisar. 2020. Gene editing: A potential tool to enhance field crop production. *International Journal of Biotech Trends and Technology (IJBT)* – Vol.10 (1): 72-82.
- Mahnoor Imran, Shaher Bano, Asma Manzoor, Muhammad Azeem, Tanzeela Rehman, Samina Yousaf, Maria But, Tousif Hussain and Uzma Qaisar. 2020. Ectopic expression of fiber related Gbwri1 complements seed phenotype in *Arabidopsis thaliana*. *International Journal of Agriculture & Biology*. 25: 123-130.



- Rabia Mirza, Muhammed Azeem and Uzma Qaisar. Influence of Peganum harmala peptides on the transcriptional activity of biofilm related genes in sensitive and resistant strains of *Pseudomonas aeruginosa* and *Staphylococcus aureus*. *Pakistan Journal of Pharmaceutical Sciences*, 32(5): 2341-2345
- Muhammad Usman Qamar, Ghulam Mustafa, Uzma Qaisar, Farrukh Azeem. 2019. Molecular detection of blaNDM and blaVIM in clinically isolated multi-drug resistant *Escherichia coli* in Pakistan. *Pakistan Journal of Pharmaceutical Sciences*, 32(5): 2305-2309
- Tauseef Anwar, Hira Qureshi, Nida Parveen, Raheel Bashir, Uzma Qaisar, Muhammad Munazir. 2019. Evaluation of bioherbicidal potential of *Carica papaya* leaves. *Brazilian Journal of Biology*. <https://doi.org/10.1590/1519-6984.216359>
- Maira Afzal, Asima Tayyeb, Uzma Qaisar*. 2019. Commercial Applications of Plant Pigments. 2019. *International journal of biotech trends and technology*. 9(3)
- Uzma Qaisar. 2019. *Peganum harmala*: a rich source of antimicrobial agents. *International journal of biotech trends and technology*. 9 (4)
- Afshan, G., Zulifqar, S., Mehboob, S., Khan, M. T. J. and Shakoori, A. R., 2019. Production of antibodies against hepatitis C virus envelope glycoprotein E2- A potential vaccine against HCV infection. *Pak. J. Zool.*, 51(6): 2311-2322. (Impact Factor 0.790)
- Adalat, R., Saleem, F., Bashir, A., Ahmad, M., Zulfiqar, S., Shakoori, A. R., 2019. Multiple upstream start codons (AUG) in 5' untranslated region enhance translation efficiency of cry2Ac11 without helper protein. *J. Cell. Biochem.*, 120(2): 2236-2250.
- Aroob, I., Ahmad, N., Aslam, M., Shaeer, A. and Rashid, N. (2019). A highly active α -cyclodextrin preferring cyclomaltodextrinase from *Geobacillus thermopakistaniensis*. *Carbohydrate Research*, 481(15):1-8. <https://doi.org/10.1016/j.carres.2019.06.004>.
- Afzaal, S., Hameed, U., Ahmad, N., Udekwu, K., Pastuszek, P. and Haider, M. S. (2019). Effect of Pasteurization treatments on *Leuconostoc mesenteroides* strains isolated from the Pakistani Foods. *Pakistan Journal of Agricultural Research*, 32(4): 625-628. <http://dx.doi.org/10.17582/journal.pjar/2019/32.4.625.628>.
- Farhan Ul Haque M, Xu HJ, Murrell JC, Crombie AT (2020) Facultative methanotrophs–diversity, genetics, molecular ecology and biotechnological potential: a mini-review. *Microbiology* 166: 894
- Hussain I, Tasneem F, Gilani US, Arshad MI, Farhan Ul Haque M, Abbas Z, Umer M, Shahzad N (2020) Human BK and JC polyomaviruses: Molecular insights and prevalence in Asia. *Virus Research* 278: 197860
- Schwartz-Narbonne R, Schaeffer P, Hopmans EC, Schenese M, Charlton EA, Jones DM, Damsté JSS, Farhan Ul Haque M, Jetten MSM, Lengger SK, Murrell JC, Normand P, Nuijten GHL, Talbot HM, Rush D (2020) A unique bacteriohopanetetrol stereoisomer of marine anammox. *Organic Geochemistry* 103999
- Dawson RA, Larke-Mejía NL, Crombie AT, Farhan Ul Haque M, Murrell JC (2020) Isoprene oxidation by the Gram-negative model bacterium *Variovorax* sp. WS11. *Microorganisms* 8: 349



- Farhan Ul Haque M, Crombie AT, and Murrell JC (2019) Novel facultative Methylocella strains are active methane consumers at terrestrial natural gas seeps. *Microbiome* 7: 134
- Asmat Ullah, Abad Khan, Zafar Iqbal, Ismail Khan, Lateef Ahmad, Waqar Ahmad Kaleem, Mirina Shaki, Saqib Jahan, Munir Ahmad, 2019. Effect of Chronic Hashish consumption on liver function and coagulation profile in hashish users. *J Postgrad Med Inst*; 33(2): 117-21.
- Asmat Ullah, Abad Khan, Zafar Iqbal, Ismail Khan, Lateef Ahmad, Waqar Ahmad Kaleem, Mukhtar Alam, Naveed Ullah, and Munir Ahmad, 2019. A clinical case control study to evaluate oxidative stress in heroin addicts. *Journal of Heroin addiction & Related Clinical Problems*. 21(x): xx-xx.
- Genomic sequencing and Recombinant Expression of Proinsulin isolated from Cow and Buffalo in Pakistan. Farheen Aslam, Hooria Younas, Saima Iftikhar Published in *African Journal of Biotechnology*
- Variability in the immunogenic preS region of Pakistani Hepatitis B virus isolates. Saima Iftikhar, Muhammad Akhtar. Published in *Virus Diseases*
- Serodiagnosis of Hepatitis B Virus using PreS antigen from Pakistani Isolate SBS001. Saima Iftikhar, Muhammad Akhtar. Submitted in *Journal cellular and Molecular Biology*.
- **Conferences, Seminars and Workshops, etc.** (Sponsors, oral Presentation + Poster Presentation)
 - National Workshop on Recombinant DNA Technology (April 2-7, 2019)
- **Books / Book Chapter**
 - Qamar Bashir and Naeem Rashid (2020) NMR as a tool for exploring protein interactions and dynamics. In: *Applications of NMR Spectroscopy*. Edited by A. Rahman. Bentham Science, Sharjah, United Arab Emirates. pp 121–140. DOI: 10.2174/9789811439971120080008
 - Book Chapter: Ubiquitous Merkel Cell Polyomavirus: causative agent of the rare Merkel Cell Carcinoma
Naveed Shahzad, Usman Shah Gilani, Menahil Mahmood, Fareeda Tasneem, Muhammad Farhan Ul Haque and Iqra Hussain.
Book title: *Emerging Viral Diseases : A Hand Book*
Under review for publication (2020), CRC Press, Taylor and Francis Group, UK

CENTRE FOR APPLIED MOLECULAR BIOLOGY

- **Research & Development**
Since its inception, CAMB is engaged to carry out the goal oriented research in the diversified fields of Molecular Biology related to economic needs of the country for agriculture, health & medicine. CAMB, as a renowned scientific research entity of the University of the Punjab, encourages the osmosis of research from Lab into different sectors of the society. It strives to provide a suitable environment and encourages researchers to work on collaborative research projects to advance knowledge, to propose solutions on some of the major issues of today and to develop new technologies for the future. During 2019-20, the major research work was carried in the following domains.



- Established BSL-2 lab and developed a Covid-19 diagnostic testing services. BSL-3 lab is in the process of development.
- Developed a Proteomics/ Functional Genomics/ Cancer Therapeutics group under CRC, working on therapeutic proteins patent against cancer /tumor along with potential therapeutic proteins and peptides against viruses, bacteria, fungi and tumor from indigenous sources.
- Identification of genetic variations associated/linked to various diseases in Pakistani population.
- Studies related to genomics of asthma and other human diseases.
- Genomics of population genetics.

In addition to the goal oriented research and development, CAMB is also serving the research/ scientific community through its following analytical testing services:

- a) DNA sequencing & Genotyping
- b) PCR based Molecular diagnosis of most prevalent infectious diseases

- **Projects: Completed**
Completed two projects funded by University of the Punjab for one year worth Rs. 1,50,000/- each.
- **Projects: Newly launched**
One NRPU project is under process funded by Higher Education Commission for three years worth Rs. 3.757 million
- **Conferences, Seminars and Workshops, etc.** (Sponsors, oral Presentation + Poster Presentation)
 - Attended one 2nd International Conference on Recent Emerging Trends in Earth and Environmental Sciences, March 4, 2020.
 - Presented online poster entitled “SNP variants of il-27 gene as genomic predictors against effectiveness of vitamin-d therapy in COPD patients” in International Conference under the CHEST organization in Italy.
 - Presented online poster entitled “Identification of diagnostic and therapeutic target genes to address asthma disease in Pakistan” in International Conference under the CHEST organization in Italy.
 - Presented online poster entitled “Whole exome sequencing identifies the asthma susceptible variants in the Punjab province of Pakistan” in International Conference under the CHEST organization in Italy.
 - Presented online poster entitled “Investigations on Novel Gene Variants Associated with Longterm Response to Tyrosine Kinase Inhibitors (TKIs) in Chronic Myeloid Leukemia: Implication in TKI-Cessation Clinical Trials” in a conference under American Society of Hematology.



○ **Research Journals**

Sr. No.	Name of Author	Title of Paper/Article	Name of Journal	Year
1.	Iqbal, Z., Absar, M., Jameel, A., Akhtar, T., Basit, S., Mahmood, A., Aleem, A., Alanazi, N., Anhar, U., Khalid, N. B., Afzal, S., Hashmi, J. A., Akram, A. M., Ramzan, K., Rasool, M., Aziz, M. H., Sabar, M. F., Iqbal, M., Khalid, A. M.	Investigations on Novel Gene Variants Associated with Longterm Response to Tyrosine Kinase Inhibitors (TKIs) in Chronic Myeloid Leukemia: Implication in TKI-Cessation Clinical Trials.	Blood	2019
2.	Anwar, I., Hussain, S., Rehman, A. U., & Hussain, M.	Genetic variation among the major Pakistani populations based on 15 autosomal STR markers.	International Journal of Legal Medicine	2019
3.	Hussain, M., Chaudhry, A., & Bashir, H.	Enhance production of alkaline protease by chemical mutagenesis of Bacillus species.	Bio Cell	2019
4.	Aslam, M. A., Hussain, M., Khan, K., Zahra, F. T., Shafique, M., & Javeed, S.	Haplotype diversity of 17 Y-STRs in Sheikh population of Punjab.	International Journal of Legal Medicine	2019
5.	Zahra, F. T., Hussain, M., Khan, K., Aslam, M. A., Shafique, M., Rubab, A., & Javeed, S.	Genetic polymorphism of Y-chromosomal STRs in Gujar population of Punjab.	International Journal of Legal Medicine,	2019
6.	Fakiha Aslam, Nadeem Ahmed, Mohsin Ahmad Khan, Farhana Azam, Muhammad Akram, Saad Tahir, and Ahmad Usman Zafar	Evaluating the ion exchange chromatography for matrix-assisted PEGylation and purification of consensus interferon https://doi.org/10.1002/bab.1832	Biotechnology and Applied Biochemistry	2019
7.	Amin I, Younas S, Afzal S, Shahid M, Idrees M	Herpes Simplex Virus Type 1 and Host Antiviral Immune Responses: An Update.	Viral Immunology	2019
8.	Khan, M.U., Sabar, M.F., Baig, A.A., Naqvi, A.N., Ghani, M.U.	Forensic and genetic characterization of mtDNA lineages of Shin; a unique ethnic group in Pakistan	Pakistan Journal of Zoology	2020
9.	Ghani, M. U., Sabar, M. F., Akram, M., & Anwar, B.	SNP variants of il-27 gene as genomic predictors against effectiveness of vitamin-d therapy in COPD patients.	Chest	2020
10.	Naeem, F., Sabar, M. F., Ghani, M. U., Ain, Q., & Zafar, Q. U. A.	Identification of diagnostic and therapeutic target genes to address asthma disease in Pakistan	Chest	2020
11.	Sabar, M. F., Ghani, M. U., Ramzan, K., & Hussain, M.	Whole exome sequencing identifies the asthma susceptible variants in the Punjab province of Pakistan	Chest	2020



12.	Iqbal, Z., Absar, M., Mahmood, A., Aleem, A., Iqbal, M., Jameel, A., Akhtar, T., Karim, S., Rasool, M., Zeenat, M., Khalid, M., Akram, A., Sabar, M. F., Khalid, A. M., Aljarrah, K., Iqbal, J., Khalid, M., Shah, I. H, Alanazi, N.	Discovery and Protein Modeling Studies of Novel Compound Mutations Causing Resistance to Multiple Tyrosine Kinase Inhibitors in Chronic Myeloid Leukemia.	Asian Pacific Journal of Cancer Prevention	2020
13.	Shahzad, M., Hussain, M., Shafique, M., Perveen, R., & Sheikh, N.	Population genetic data of 30 insertion-deletion markers in Punjabi population of Pakistan.	International journal of legal medicine	2020
14.	Jahangir, G. Z., Shahwar, D., Nasir, I. A., Shehzad, S., and Iqbal, M.	Essential oils of spice plants prevent DNA damage.	The International Journal of Biological Research	2020
15.	Iqbal, F., Ayub, Q., Song, B. K., Wilson, R., Fahim, M. & Rahman, S.	Sequence and phylogeny of the complete mitochondrial genome of the Himalayan jungle crow (Corvidae: Corvus macrorhynchos intermedius) from Pakistan.	Mitochondrial DNA	2020
16.	Bilal, M., Nasir, I. A., Tabassum, B., Akrem, A., Ahmad, A., & Ali, Q.	Cytotoxicity and in-vitro antiviral activity of lectin from crocus vernus L. Against potato virus	Applied Ecology and Environmental Research	2020

RESEARCH COLLABORATION

○ Indigenous

- Children Hospital, Lahore
- University of Veterinary and Animal Sciences.
- Ghulab Devi Hospital
- King Edward Medical University, Lahore
- LUMS
- UHS

○ Funding grants for R&D

Major part of funding was met through centre's own (earnings through commercial activities) resources and the university grants.

Faculty of Oriental Learning

DEPARTMENT OF ARABIC

○ Projects: Completed

Name of Researcher	Topic of Research	Sponsoring Agency	Approved Amount	Status
Dr. Abdul Majid Nadeem	"اللهجات العربية في الإمارات"	P.U. Lahore	150000-/	Continue



○ **Publications**

Authors Name	Article Name	Journal with Date	Sponsoring Agency
Prof. Dr. Khaliq Dad Malik	كشمير في الشعر العربي	مجلة القسم العربي، جامعہ پنجاب، لاہور۔	P.U. Lahore
Prof. Dr. Hamid Ashraf Hamdani	مكونات خطاب ادب الرحلات و حصائمه	مجلة القسم العربي، جامعہ پنجاب، لاہور۔	P.U. Lahore
Dr. Abu Bakar	ہجرت مدینہ: سیرت النبی صلی اللہ علیہ وسلم کا ایک روشن باب (استشرافی توجہات کا تنقیدی جائزہ)	Afkar Journal of Islamic & Religious Studies, Institute of Social Science & Development, Karachi	Institute of Social Science & Development, Karachi
Dr. Abu Bakar	مظاہر المروءۃ عند شعراء المعلقات السبع	Journal of Arabic Research, Allama Iqbal Open University, Islamabad	Allama Iqbal Open University, Islamabad
Dr. Abu Bakar	عقیدہ التوحید فی شعر زید بن عمرو	جہات الاسلام، شعبہ اسلامیات جامعہ پنجاب، لاہور۔	P.U. Lahore
Dr. Abu Bakar	غزوات و سرايا کی مادی تعبیرات --- تجزیاتی مطالعہ	Al ADWA, Sheikh Zayad Islamic Centre PU. Lahore	P.U. Lahore

○ **Books**

Authors Name	Book Name	Publisher	No. of Pages	Year of Publication
Prof. Dr. Khaliq Dad Malik	تحقیق و تدوین کا طریقہ کار	Azad Book Depot.	456	January, 2020
" "	الاختیار من المتعدد	" "	272	August, 2020
" "	اللغة العربية	" "	152	September, 2020
" "	الأدب العربي	" "	160	September, 2020
" "	اللغة العربية	" "	152	November, 2020
" "	تدريس اللسان العربي	" "	160	December, 2020
" "	الانشاء والمحادثة	" "	248	August, 2020



○ **Research Journals**

Journal Name	Editor Name	Remarks
Majallah Al Qism Al Arabi, Department of Arabic, PU, Lahore Issue No. 27 / 2020	Prof. Dr. Khaliq Dad Malik	Annual

DEPARTMENT OF KASHMIRYAT

○ **Research articles published national & international:**

- Prof. Dr. Khawaja Zahid Aziz, Promotion of Persian Literature in Kashmir, Iqbal Review Journal of the Iqbal Academy Pakistan, 2020.

DEPARTMENT OF PERSIAN

○ **Publication : Books/Edited**

Sr. No.	Name of Author	Title of Book
1.	Prof. Dr. Ghulam Moeen ud Din	آئینوں کی جمیل Urdu Translation of Sohrab Sapehri's Selected Poems,
		دیوان منور لاہوری - Editing of Persian text and Urdu translation, a research joint project,

○ **Publication : Paper/Article**

Sr. No.	Name of Author	Title of Paper/Article
1	Prof. Dr. Ghulam Moeen ud Din	Akhtar usman ka Shayri lahun, Chiragh zar ky tanazar main
2	Prof. Dr. Muhammad Nasir	Rumi Studies in Subcontinent The Reflection of the Freedom Movement in the Persian Letters of Sayyed Ahmad An Overview of the Khaleseh Nameh by Ratan Chand Raizadeh Qiran Al-Sa'dain & Amir Khosrow's Art of Description Reflection of the 13th Century's Subcontinent's Culture in Mathnavi Dowal Rani Khizr Khan
3	Prof. Dr Sayyid Muhammad Farid	Tawarikh Shahanshahan-i-Hind by Rami Sayyeda Faleeha Kazmi, Wajeeha Batool, Glimpses of Qasida Writing in Akbar and Jahangir Era
4	Dr. Shoaib Ahmad	Sharah Ahwal-o-Asar-o-Khawariq Hadrat Sharf-ud Din Bu Ali Qalandar
5	Dr. Muhammad Sabir	Editing of the Manuscript "Cheragh Nameh"
6	Dr. Ihsan Ahmad	Majma ul Kamal An Important work of Chishtia order in Gujrat



7	Dr. Uzma Zareen Nazia	مولانا و سلطان باهو، همسر گاه (محل سیدن) پاری زبانان ایران و پاکستان
		مولانا جلال الدین بلخی و سلطان باهو، پیام آوران صلح دوستی در جهان
		Hassan Shaeri Kashmiri and examples of Na'at from Miraat-ul-Khyal

○ Conferences, Seminars and Workshops

- Prof. Dr. Ghulam Moeen Ud Din, (2020) "Soze o Saaz Rumi, International Iqbal society and Rumi Chair, Punjab University, Lahore.
- Prof. Dr. Shoaib Ahmad (2020), "Soze o Saaz Rumi, International Iqbal society and Rumi Chair, Punjab University, Lahore.
- Prof. Dr. Muhammad Sabir (2020), Molana Rumi and Sultan Bahu, Muslim Institute and PU, Lahore
- Dr Ihsan Ahmed (2020), "Soze o Saaz Rumi, International Iqbal society and Rumi Chair, Punjab University, Lahore.
- Dr. Uzma Zareen Nazia, (2020), Oriental College, Al-Farabi University, Almati, Kazakhstan. (2020), Molana Rumi and Sultan Bahu, Muslim Institute and PU, Lahore

DEPARTMENT OF PUNJABI

○ Project: Completed

- Prof, Dr. Nabila Rehman قدیم پنجابی نثر (بابا فرید کے حوالے سے قدیم نثری تحریریں: تحقیق و تجزیہ
- Prof, Dr. Naveed Ahmad Shahzad کلام بابا فرید الدین مسعود گنج شکر بہ حوالہ "گرنٹھ صاحب" (لسانی مطالعہ)
- Dr. Saadat Ali Saqib پنجاب وچ ڈھولاتے سی دی گانگی دے وکھو وکھ انداز "تحقیقی تے تجزیاتی مطالعہ"

○ Publication: Books/Edited

Dr. Asma Qadri (Associate Professor)

گاسنس سن گاون-1

سریت پریت ریٹ-2

گاون راس-3

○ Conferences, seminars and workshops etc.

Prof. Dr. Nabila Rehman

- Freedom of Pakistan & writers Conference (past & present) Academy of letters Islamabad, 12 August, 2020.
- Faqir Bedal online Conference, Academy of letters Islamabad, 07 July, 2020.
- Punjabi literature and message of peace: Mahkan online International Conference, Sahiwal 06 June, 2020.
- Sachal Sarmast International Conference: Academy of letters, Islamabad 07 May, 2020.
- International Conference on Punjabi language, Literature & Culture, LCWU, Feb, 2020.
- 2-Days International Conference: "Baba Farid Baba Guru Nanak International Conference" Department of Punjabi, Punjab University, Lahore 11-12 Dec 2019.



Prof. Dr. Naveed Ahmad Shahzad

- 2-Days International Conference: “Baba Farid Baba Guru Nanak International Conference” Department of Punjabi, Punjab University, Lahore 11-12 Dec 2019.

Dr. Asma Qadri

- 2-Days International Conference: “Baba Farid Baba Guru Nanak International Conference” Department of Punjabi, Punjab University, Lahore 11-12 Dec 2019.

Dr. Zahir Ahmad Shafiq

- 2-Days International Conference: “Baba Farid Baba Guru Nanak International Conference” Department of Punjabi, Punjab University, Lahore 11-12 Dec 2019.

DEPARTMENT OF URDU

○ **Project:** Completed

Dr. Zahid Munir Amir, Greece in Urdu Literature, 2018-2020

Newly launched

Dr. Zahid Munir Amir, Urdu in Turkey, University of the Punjab, Lahore, 2020.

○ **Publication:** Books/Edited

- Prof. Dr. Zahid Munir Amir, “*Armaghan e Jamil*” Department of Urdu, Oriental College, University of the Punjab, Lahore, 2020. (Pages 220)
- Prof. Dr. Zahid Munir Amir, “*Iqbal e Imroz o Farda*” Department of Urdu, Oriental College, University of the Punjab, Lahore, 2020. (Pages 232)
- Prof. Dr. Zahid Munir Amir, “*Talab Kay Lamhay*” Lahore: Qalam Foundation, 2020. (Pages 124)
- Dr. Nasir Abbas Nayyar, *Coloniality, Modernity and Urdu Literature* (Criticism), Sang-e-Meel Publications, Lahore, 2020 (Pages 260)
- Dr. Nasir Abbas Nayyar, *ایک زمانہ ختم ہوا ہے* (Short Stories), Sang-e-Meel Publications, Lahore, 2020 (Pages 151)

○ **Conferences, seminars and workshops etc.**

- Dr. Zahid Munir Amir, Pak Fauj k Ahl-e-Qalam: MajmoeJaiza, Lahore Garrison University / Usman Shaukat Seminar Hall No. 1, Garrison University., Presided the session and delivered presidential address, 16th Oct. 2019,
- Dr. Zahid Munir Amir, Iqbal and women, GC Women University Faisalabad, Presidential address, 4th Nov. 2019
- Dr. Zahid Munir Amir, Seerat un Nabi PBUH, Centre for coal technology University of the Punjab, Lahore, Key Note Speaker, 8th Nov. 2019
- Dr. Zahid Munir Amir, Iqbal and Youth, Pakistan Youth Council at Pak Turk School, Key Note Speaker, 9th Nov. 2019.
- Dr. Zahid Munir Amir, Iqbal and our society, College of Statistical Sciences University of the Punjab, Lahore, Key Note Speaker, 14th Nov. 2019



- Dr. Zahid Munir Amir, Iqbal's Relevance with the Modern Age, Department of Urdu, University of the Punjab, Lahore, Organized International Conference, 15th Nov. 2019
- Dr. Zahid Munir Amir, Iqbal and Seerat e Nabwi PBUH, University of Management and Technology Lahore, Key Note Speaker, 16th Nov. 2019
- Dr. Zahid Munir Amir, Seminar in IER, University of the Punjab, Lahore, Delivered Lecture, 17th Dec. 2019
- Dr. Zahid Munir Amir, Seminar on Quaid -o- Iqbal in University of Health Sciences, Lahore, Delivered Lecture, 19th Dec. 2019
- Dr. Zahid Munir Amir, In the memory of Quaid e Azam Muhamamd Ali Jinnah, Department of Urdu, Oriental College, University off the Punjab, Lahore., Organized Program and delivered Inaugral speech., 16th Jan, 2020
- Dr. Zahid Munir Amir, Sham ul Ulama Maulala Altaf Hussain Hali, Department of Urdu, Oriental College, University off the Punjab, Lahore., Organized Program and delivered Inaugral speech., 22nd Jan, 2020
- Dr. Zahid Munir Amir, "Urdu in Netherlands", Department of Urdu, Oriental College, University off the Punjab, Lahore., Organized Program and delivered Inaugral speech., 29th Jan, 2020.
- Dr. Zahid Munir Amir, Kashmir Day Seminar; "Kashmir aur Aalmi Zameer", Department of Urdu, Oriental College, University off the Punjab, Lahore, Organized Program and delivered Inaugral speech., 6th Feb, 2020
- Dr. Zahid Munir Amir, "Ghalib aur Ham", Department of Urdu, Oriental College, University off the Punjab, Lahore., Organized Program and delivered Inaugral speech., 26th Feb, 2020
- Dr. Zahid Munir Amir, Special Online Seminar on Iqbal Day "Taleemi Nisaabat Maen Fikr e Iqbal ki Numaindgi: Tabsara o Tajaveez", Department of Urdu, Oriental College, University off the Punjab, Lahore., Organized Program and delivered Inaugral speech., 21st April, 2020
- Dr. Zahid Munir Amir, International Urdu Conference, Idara Farogh e Qaumi Zuban, Islamabad, Delivered Lecture on Iqbal and Urdu, 12-14 Aug 2020
- Dr. Zia ul Hassan, "Adab aur Samaji Maqbuliat", Conference: Urdu Maen Maqbool e Aam Shairy Adab, GCU, Lahore, 4th Feb 2020.
- Dr. Zia ul Hassan, Online Urdu Conference, Urdu Tanqeed: Maazi, Hal, Mustaqbil, University of Sialkot, 20th June 2020.
- Dr. Zia ul Hassan, Ikeesvin Sadi Maen Urdu Adab, (Two Days Online Conference), Govt. Women University, Sialkot, Article: "Ikeesvin Sadi ka Urdu Novel", 7th August, 2020.
- ڈاکٹر ناصر عباس نیر، اردو ادب، ثقافتی شناخت اور نئے استعماری بیانیے، ساہیوال آرٹس کونسل، ساہیوال، 12 تا 13 فروری 2020ء (کلیدی مقالہ پیش کیا)
- ڈاکٹر ناصر عباس نیر، مسعود اشعر کے ساتھ "سوال کہانی" پر گفتگو، لاہور لٹرییری فیسٹول، لاہور، 21 فروری 2020ء
- ڈاکٹر ناصر عباس نیر، سلیمہ ہاشمی کی کتاب "نظر کی امنگ" پر گفتگو، لاہور لٹرییری فیسٹول، لاہور، 21 فروری 2020ء
- ڈاکٹر ناصر عباس نیر، آصف فرخی کی کتاب "ایک کہانی نئے مضمون کی" پر گفتگو، لاہور لٹرییری فیسٹول، لاہور، 23 فروری 2020ء



- ڈاکٹر ناصر عباس نیر، اصغر ندیم سید کی کتاب "ٹوٹی ہوئی طناب ادھر" پر گفتگو، لاہور لٹریچر فیسٹول، لاہور، 23 فروری 2020ء
- ڈاکٹر ناصر عباس نیر، اردو زبان و ادب پر مختلف خطوں کے اثرات، شعبہ اردو، گورنمنٹ کالج ویمن یونیورسٹی، فیصل آباد 26 فروری 2020ء (کلیدی مقالہ پیش کیا)
- ڈاکٹر ناصر عباس نیر، شمالی امریکا اور لاطینی امریکا کا فکشن پاکستان میں، گیارہواں کراچی لٹریچر فیسٹول، کراچی، 29 فروری 2020ء
- ڈاکٹر ناصر عباس نیر، ایک صدی کا قصہ، قاتل شفا، ظہیر کا شمیری، محمد حسن عسکری گیارہواں کراچی لٹریچر فیسٹول، کراچی، یکم مارچ 2020ء
- ڈاکٹر ناصر عباس نیر، اسد محمد خاں کا فن افسانہ، گیارہواں کراچی لٹریچر فیسٹول، کراچی، یکم مارچ 2020ء
- ڈاکٹر ناصر عباس نیر، لائیو فیس بک گفتگو (ادب، تنقید، افسانہ)، ایاز احمد کے ساتھ، سنگ میل پبلی کیشنز، 9 اپریل، 2020ء
- ڈاکٹر ناصر عباس نیر، فطرت، مقامیت اور ماحولیات: چوتھی مجید امجد ادبی کانفرنس (آن لائن کانفرنس)، کلیدی گفتگو، ساہیوال آرٹس کونسل 10 مئی 2020ء
- ڈاکٹر ناصر عباس نیر، اکیسویں صدی میں اردو تحقیق: تقاضے اور مسائل (ورلڈ اردو ایسوسی ایشن کی طرف سے خصوصی لیکچر)، لائیو کلیدی گفتگو، 5 جولائی 2020ء
- ڈاکٹر ناصر عباس نیر، لائیو فیس بک گفتگو، غالب: شخصیت اور شاعری، لمز، 6 جولائی 2020ء
- ڈاکٹر ناصر عباس نیر، لکھنؤ کی کہانیاں، انیس اشفاق کے ساتھ (آن لائن) گفتگو، لاہور لٹریچر فیسٹول، 15 جولائی 2020ء
- ڈاکٹر ناصر عباس نیر، ادب اور قومیت، پینل (آن لائن) گفتگو، لمز، 16 اگست 2020ء
- ڈاکٹر ناصر عباس نیر، جدید اردو شاعری، شیم حنفی کے ساتھ (آن لائن) گفتگو، 15 اگست 2020ء
- ڈاکٹر ناصر عباس نیر، اپنی افسانہ نگاری پر شباسید کے ساتھ (آن لائن) گفتگو، فیض گھر، 28 ستمبر 2020ء

- Dr. Asif Ali Chatta, 2 Days International Conference "Farsi aur Urdu ka Muzahmati Adab", Organized by Urdu Department Lahore College for Women University, Lahore on 29-30th Jan 2020.

○ Research Journal

- Dr. Zahid Munir Amir, Dr. Jamil Jalibi aur Bayaz -e- Shahab Baig, Monthly QaumiZaban Karachi, October 2019
- Dr. Zahid Munir Amir, Sher, Lafz aur Taza Kari, Mujallah Urdu Column, October 2019.
- Dr. Zahid Munir Amir, Raas ul Hussain, Monthly NamoodLahore, Vol. 7 No 7,8,9,10, July-Oct 2019.
- Dr. Zahid Munir Amir, Aesy bhi Log Hain JinhenParkha to Unki Rooh....., Daily NaiBaat, Lahore, 11th Dec. 2019.
- Dr. Zahid Munir Amir, Dhaka Main Doobtay Chehray, Daily NaiBaat, Lahore, 16th Dec. 2019
- Dr. Zahid Munir Amir, Zindgi ka Rasta, Monthly Zouq e Zindgi, Lahore, December 2019
- Dr. Zahid Munir Amir, Quad e Azam, Chalees Saal aur Chouda Ghantay, Daily NaiBaat, Lahore, 25th Dec. 2019
- Dr. Zahid Munir Amir, Irtikaaz Se Mehroomi: Ahd e Hazir ka Bara Mas'ala, Daily NaiBaat, Lahore, 12th Feb, 2020
- Dr. Zahid Munir Amir, Do Qaumi Nazriya..... Quaid e Azam ki Nazar Mein, Daily NaiBaat, Lahore, 23rd March 2020
- Dr. Zahid Munir Amir, Mukhtar Masood..... Judai kay Teen Saal, Daily NaiBaat, Lahore, 14th April, 2020
- Dr. Zahid Munir Amir, Iqbal, Aaj ka Fankar aur Mutalibat e Fan, Daily NaiBaat, Lahore, 21st April, 2020



- Dr. Zahid Munir Amir, Chahar Rang (Mujahid ul Hussaini kay Khatoot Janab Dr. Zahid Munir Amir kay Naam), Monthly Alminbar, Faisalabad, Feb-March 2020
- Dr. Zahid Munir Amir, Suqrat Say Mulaqat, Monthly Mukalma, Karachi, June 2020,
- Dr. Zahid Munir Amir, Raunaq e Khumkhana e Unan. Daily NaiBaat, Lahore, 3rd June, 2020
- Dr. Zahid Munir Amir, Khizan Raseeda Dirakhton kay Khali Hath, Daily NaiBaat, Lahore, 10th June, 2020
- Dr. Zahid Munir Amir, Athens kay Dil Maen Zuhara ka Bott, Daily NaiBaat, Lahore, 17th June, 2020
- Dr. Zahid Munir Amir, Aflatoon Ki Akademi aur Iqtidarki Ghulam Gardishain, Daily NaiBaat, Lahore, 24th June, 2020
- Dr. Zahid Munir Amir, Suqraat: Qateel e Shaoor e Nau, Daily NaiBaat, Lahore, 1st July, 2020
- Dr. Zahid Munir Amir, Unan: Haey Suqraat To Yahan bhi Naheen., Daily NaiBaat, Lahore, 8th July, 2020
- Dr. Zahid Munir Amir, Yeh Weerana Aey Khuda Kia Hai, Daily NaiBaat, Lahore, 15th July, 2020
- Dr. Zahid Munir Amir, Aristotle Machiavelli aur Arth Shastar, Daily NaiBaat, Lahore, 22nd July 2020
- Dr. Zahid Munir Amir, Tasweer e Unan .AikPehloo Ye Bhi He, Daily NaiBaat, Lahore, 5th Aug. 2020
- Dr. Zahid Munir Amir, Acropolis ka Ma'abad, Khawateen aur Zindgi ka Bojh, Monthly Nairang e Khayal, Rawalpindi, Vol-95, Issue 8, August 2020, P 28-31
- Dr. Zahid Munir Amir, Kia Suqraat ka Falsafa aik Khatoon say Mutasir ho kar Takhliq Hua?, Daily NaiBaat, Lahore, 12th Aug 2020
- Dr. Zahid Munir Amir, Tasweer -e- Uounan Maen Rang, Daily NaiBaat, Lahore, 19th Aug 2020
- Dr. Zahid Munir Amir, Masjid -e- Fateh, Daily NaiBaat, Lahore, 26th Aug 2020
- Dr. Zahid Munir Amir, Dr Mazhar Mahmood Shirani Ka DehKhudai Darbar, Monthly Alhamra, Lahore, September 2020
- Dr. Zahid Munir Amir, Unan Suqrat aur Zuhara, Monthly Alhamra, Lahore, September 2020
- Dr. Zahid Munir Amir, Unani Parlimate aur TV Anchor, Daily NaiBaat, Lahore, 2nd Sep 2020
- Dr. Zahid Munir Amir, Athens ki Aik Sham, Daily NaiBaat, Lahore, 9th Sep 2020
- Dr. Zahid Munir Amir, Lafz ki Hurmat aur Iblagh, Daily NaiBaat, Lahore, 16th Sep 2020
- Dr. Zahid Munir Amir, Iblagh, Tazkeer aur Tehqiq, Daily NaiBaat, Lahore, 23rd Sep 2020
- Dr. Zahid Munir Amir, Sahafat: Maqsad ya Karobar, Daily NaiBaat, Lahore, 30th Sep 2020
- Dr. Zia ul Hassan, Urdu Tanqeed: Maazi, Hal, Mustaqbil, Conference Proceeding, University of Sialkot, 2020.
- Dr. Zia ul Hassan, Ahmad Mushtaq: Aik Mukhtalif Roomanvi Shair, Aadmi, (Anthology Edited by Mushtaq Ahmad)
- Dr. Zia ul Hassan, Chashm ho to, Preface of Haazir Saain, by Muhammad Arif Tameel, 2020
- Dr. Nasir Abbas Nayyar, صارفیت اور ادب، عالمگیری، Alhamd (Alhamd Islamic University, Islamabad) Y category, Jan-June 2020



- Dr. Nasir Abbas Nayyar, Diary of a City, published in The News on Sunday, January 12, 2020
- Dr. Nasir Abbas Nayyar, The problem of Popular Literature, published in The News on Sunday, February 9, 2020
- Dr. Nasir Abbas Nayyar, "The Literature in a Literary Festival", published in The News on Sunday, March 1, 2020
- Dr. Nasir Abbas Nayyar, "Calamity in Literature", published in The News on Sunday, April 5, 2020
- Dr. Nasir Abbas Nayyar, "Nature of Poetry and poetry about Nature", published in The News on Sunday, May 31, 2020
- Dr. Nasir Abbas Nayyar, The Book of Farewells, published in B&A, Dawn, Karachi, June 7, 2020
- Dr. Nasir Abbas Nayyar, Modern Urdu Canon, published in The News on Sunday, August 23, 2020
- Dr. Aneela Saleem, "Urdu Tazkaray 1835 ky Bad", Included in Tehqiq Nama, Urdu Department, G.C University, Lahore, Vol-27, July-Dec 2020.
- Dr. Asif Ali Chatta, "Dr. Saleem Akhtar ki Iqbal Shanasi", Included in: Oriental College Magazine, Volume 95, Issue 2, University of the Punjab, Lahore, April-June 2020.
- Dr. Asif Ali Chatta, "Syed Suleman Nadvi aur Sair e Afghanistan" Included in: Oriental College Magazine, Volume 95, Issue 3, University of the Punjab, Lahore, July-September 2020.

UNIVERSITY ORIENTAL COLLEGE

○ Conference, Seminars and Workshops, etc.

Farewell Party (31-10-19)

- A farewell party was arranged in honor of outgoing Principal Prof Dr. Muhammad Fakhar ul Haq Noori. The farewell event was held at the Senate Hall, Old Campus. PVC Prof. Dr. Muhammad Saleem Mazhar was the Chief Guest of the occasion. A large number of staff and faculty were present at the event.

Seerat Conference (26-11-19)

- Compliance to the orders of the Vice Chancellor Punjab University, a conference on Seerat was held at the Sherani Hall. Teachers, staff and students attended the conference.

Naatia Poetic Session (28-11-19)

- A Naatia Poetic session was held on 28 November 2019, at the Sherani Hall. Poets of National standing along teachers of the college offered verses in the glorification of the Holy Prophet (PBUH).

One Day Lecture (13-01-2020)

- A one day lecture entitled اقبال کا تصور خودی نوجوانوں کے لیے has been delivered by Dr. Khawja Muhammad Zakria, Ex.Principal, University Oriental College. Teachers and students of the college attended the session in large number.

Tasawwuf Seminar (15-01-2020)

- A one day Tasawwuf Seminar titled "Sufi Teaching or Character Building of New Generation" organized by the Hujwari Chair. The PVC Prof. Dr. Muhammad Saleem Mazhar presided over the seminar. Famous Sufi poet Khawja Ghulam Qutub-al Din Faridi was the Chief Guest of the event.



Qirat-o-Naat Session (23-01-2020)

- In 2020 the College has completed 150 years of its establishment and celebrations in the regard have been started. A Qirat-o-Naat session was held in this connection. The PVC Prof. Dr. Muhammad Saleem Mazhar presided the session. Teachers and students of the college attended the session in large number. The participants were awarded with the shields at the end of the session.

Event in Honor of Amjad Islam Amjad (13-02-2020)

- Former student of the college. Amjad Islam Amjad was awarded a literary award by the Govt. of Turkey. An event to celebrate the award an event was organized in honor of Amjad Islam Amjad. The PVC Prof. Dr. Muhammad Saleem Mazhar graced the occasion as Chief Guest.

A One Day Tasawwuf Seminar (26-02-2020)

- A one day national seminar on Tasawwuf was held to shed light on the life and contribution of the great Sufi of the subcontinent Baba Farid Addin Masaud Ghanj Shahr. The Seminar was organized by the Hujwari Chair in collaboration with Oriental College. Renowned Scholar of Pakistan presented their papers. Dr. Zahoor Ahmad Azhar was the Chief Guest of the event.

○ **Research Journal**

Recognized and historical Research Journal "Oriental College Magazine" has been publishing since 1925.

○ **Linkages with Foreign Universities:**

- Al-Jamia Al-Azhar, Cairo, Egypt.
- Daito Bunka University Tokyo, Japan
- Ningxia University, China
- Tehran University, Iran.
- King Saud University, Al-Riyadh, Saudi Arabia

○ **Funding Grants for Research Development:**

HEC scholarships awarded to faculty members.

URDU DEVELOPMENT COMMITTEE

ادارہ تالیف و ترجمہ نے سال 2019-20 میں اردو ادب اور دیگر موضوع پر مبنی مندرجہ ذیل کتب شائع کرنے کا اہتمام کیا ہے:-

نمبر شمار	نام کتاب	اشاعت
-1	انتخاب زریں اردو غزل (مرتب ڈاکٹر خواجہ محمد زکریا)	2018ء
-2	نالیٹائی اور اردو ادب (ڈاکٹر حنا صبا)	2019ء
-3	فی حب مصر (ڈاکٹر زاہد منیر عامر)	2019ء
-4	قدیل (مترجم ڈاکٹر جاوید مجید)	2020ء



Faculty of Pharmacy

PUNJAB UNIVERSITY COLLEGE OF PHARMACY

Projects: Newly launched

A PC-I for the establishment of Department of Natural Medicine has been submitted to HEC. One PC-I for the establishment of Bioavailability and Bioequivalence Lab has been submitted to university. Five projects funded by HEC under NRP Program are underway. A certificate course (QBD) has been launched and one batch has completed the program.

○ **Publications:** Books/ Edited

Books

- Nadeem Irfan Bukhari, Biopharmaceutics and Pharmacokinetics – An activity based learning (2nd Edition) Reprint 3, Raaz Publishers, Lahore Pakistan
- Prof. Dr. Khalid Hussain, Practical Manual for instrumentation and pharmaceutical Analysis. Pharm D student (3rd Edition), Raaz Publishers, Lahore Pakistan
- Imran Tariq, Practical Approach for Pharmaceutical dispensing for Pharm D student (2nd Edition), Raaz Publishers, Lahore Pakistan.
- Amjad Hussain, Manual of Clinical Pharmacy for Pharm D student (4th Edition), Raaz Publishers, Lahore Pakistan.
- Pervaiz Akhter Shah, Practical Manual of industrial Pharmacy for Pharm D student (Revised Edition), Raaz Publishers, Lahore Pakistan.
- Nair Abbas, Physical Pharmacy for Pharm D 1st year (Revised Edition), Raaz Publishers, Lahore Pakistan

○ **Publications**

Prof. Dr. Khalid Hussain

Title of Research Paper	Name of Publishing Journal	Vol.
COVID-19 Pandemic and Online Teaching Preparedness of Pakistani Pharmacy Educational Institutions	South-East Asian Journal of Medical Education	
Speeding Up The Development Of 5-[(4-Chlorophenoxy)- Methyl]-1,3,4-Oxadiazole-2-Thiol As Successful Oral Drug Candidate Based On Physicochemical Characteristics	Pharmaceutical Chemistry Journal	
Morphological, microscopic, and physicochemical studies of Diospyros montana	Microscopy Research & Health	83 1260-1261
Acid Uric 3× Tablet: Standardization and pharmacological evidence of uric acid use as anti-gout medicine	Journal of Pharmacy & Pharmacognosy Research	8 (6), 501-514, 2020
Knowledge, attitude and preventive practices related to COVID-19 among health professionals of Punjab province of Pakistan	Journal of Infection in Developing Countries	2020; 14(7):707-712



In vitro anti-gout and anti-inflammatory activity of traditionally used polyherbal anti-gout remedy	International Journal of Biosciences	16, No. 5, p. 327-335, 2020
How Prepared Was Pakistan for the COVID-19 Outbreak?	Disaster Medicine and Public Health Preparedness	DOI: 10.1017/dmp.2020.247
Hepatoprotective and antioxidant activity of <i>Dicliptera bupleuroides</i> Nees. extracts on paracetamol induced hepatotoxicity in rats	Pak. J. Pharm. Sci	33, No.4 (Suppl), July 2020, p.1899-1906
Proximate analysis and in vitro biological evaluations of <i>Misopates orontium</i> (L.)	Biologia (Pakistan)	2020; 66 (I), 67-78
Psychological Impact of COVID-19 on Pakistani University Students and How They Are Coping	BMJ	doi: https://doi.org/10.1101/2020.05.21.20108647
Knowledge, attitude and preventive practices related to COVID-19: a cross-sectional study in two Pakistani university populations	Drugs & Therapy Perspectives	https://doi.org/10.1007/s40267-020-00737-7
Assessment of antibiotics use for children upper respiratory tract infections: a retrospective, cross-sectional study from Pakistan	Infectious Diseases	52:7, 473-478
Off-label antibiotic use in a specialized child care hospital in Punjab, Pakistan: Findings and implications	Journal of Infection in Developing Countries	2020; 14(5):540-544
<i>In Vivo</i> Evaluation of a Novel Chitosan-Polycaprolactone Based Mucoadhesive Gastro-Retentive Sustained Release Drug Delivery System for Milnacipran HCl	AAPS PharmSciTech	2020, 21, 58
Menstrual knowledge and practices of Pakistani girls: A multicenter, cross-sectional study	Heliyon	2020, 6(1), e03157
Antibacterial Activity of Organic Extracts of Root Bark of <i>Ziziphus jujube</i> Gaertn (L) var. <i>hysudrica</i> Edgew	Int. J. Biosci	2020, 16(1), 251-260

Prof. Dr. Nadeem Irfan Bukhari

Title of Research Paper	Name of Publishing Journal	Vol.
Artificial Neural Network (ANN) Approach to Predict an Optimized pH-Dependent Mesalamine Matrix Tablet	Drug Design, Development and Therapy	14
Acid Uric 3 rd Tablet: Standardization and pharmacological evidence of uric acid use as anti-gout medicine	Journal of Pharmacy & Pharmacognosy Research	8 (6)
Antibacterial Activity of Organic Extracts of Root Bark of <i>Ziziphus jujube</i> Gaertn (L) var. <i>hysudrica</i> Edgew	International Journal of Biosciences	16
<i>Rosa brunonii</i> Lindely fruit as a new protective agent evaluated against Rif/INH induced toxicity in rats	Pak. J. Pharm. Sci	33



Fabrication and Characterization of Thiolated Chitosan Microneedle Patch for Transdermal Delivery of Tacrolimus	AAPS PharmSciTech	21
Lipodendriplexes mediated enhanced gene delivery: a cellular to pre-clinical investigation	Nature research	
Prediction of lisinopril pediatric dose from the reference adult dose by employing a physiologically based pharmacokinetic model	BMC Pharmacology and toxicology	21
Fabrication of modified-release custom-designed ciprofloxacin tablets via fused deposition modeling 3D printing	Journal of 3D printing in Medicine	4 (1)
Off-label antibiotic use in a specialized children care hospital in Punjab, Pakistan: Findings and implications	The Journal of Infection in Development Countries	14 (5)
Vaccine Prices: A Systematic Review of Literature	MDPI	8
Antibiogram and recent incidence of multi-drug resistant carbapenemase producing <i>Escherichia coli</i> isolated from paediatric patients	Pak J Med Sci	36 (2)
In Vivo Evaluation of a Novel Chitosan-Polycaprolactone Based Mucoadhesive Gastro-Retentive Sustained Release Drug Delivery System for Milnacipran HCl	AAPS PharmSciTech	21:58
Integration of Quality Management and Supply Chain Management in Pharmaceutical Distribution Sector of Pakistan	Journal of the Research Society of Pakistan	57

Prof. Dr. Hamid Saeed

Title of Research Paper	Name of Publishing Journal	Vol.
Point Prevalence Surveys of Antimicrobial Use: A Systematic Review and The Implications	Expert Review of Anti-infective Therapy	
Investigating the role of altered systemic albumin concentration on the disposition of theophylline in adult and pediatric asthma patients by using the physiologically based pharmacokinetic approach	Drug Metabolism and Disposition	
Dosing Errors in TPN Prescriptions at a Specialized Cancer Care Hospital of Lahore: The Role of Clinical Pharmacist	Oncology Pharmacy Practice	(https://doi.org/10.1177/1078155220923014)
Knowledge, Attitude, and Practices Toward COVID-19 in Primary Healthcare Providers: A Cross-Sectional Study from Three Tertiary Care Hospitals of Peshawar, Pakistan	Journal of Community Health	(https://doi.org/10.1007/s10900-020-00879-9)
Clinical efficacy of various anti-hypertensive regimens in hypertensive women of Punjab; A longitudinal cohort study	BMC Women's Health	21 (1)



Impact of National Drug Pricing Policy 2018 on Access to Medicines in Lahore Division, Pakistan: A Pre-Post Survey Study Using WHO/HAI Methodology	BMJ Open	10: e034720
<i>In-vivo</i> Evaluation of Anti-urolithiatic Activity of Different Extracts of Peel and Pulp of <i>Cucumis melo</i> L. in Mice Model of Kidney Stone Formation.	Pakistan Journal of Zoology	DOI: https://dx.doi.org/10.17582/journal.pjz/20190418170457
Antibiotic prescribing trends in patients with upper respiratory tract infections reporting to tertiary care hospitals of Lahore	Pakistan Journal of Pharmaceutical Sciences	33: 4(suppl)
Patterns of physicians' knowledge, attitude and prescribing trends against upper respiratory tract infections in Lahore, Pakistan	Pakistan Journal of Pharmaceutical Sciences	33: 4(suppl)
Knowledge, attitude, and practices of healthcare professionals on COVID-19 and risk assessment to prevent the epidemic spread: A multicenter cross-sectional study from Punjab, Pakistan	International Journal of Environmental and Public Health	17(17)
Comparative safety and efficacy of conventional interferon vs. pegylated-interferon based therapy for HCV: a retrospective cohort study from Gujranwala, Pakistan.	Pakistan Journal of Pharmaceutical Sciences	33 (5)
A national study to assess pharmacists' preparedness against COVID-19 during its rapid rise period in Pakistan	PlosONE	15 (11) :e0241467
Assessment of undergraduate pharmacy student's attitude towards pharmaceutical care in Pakistan; Practice Implication.	Journal of Multidisciplinary Health Care	13: 1517 - 1525
Assessing the impact of covid-19 on the mental health of health care workers in three metropolitan cities of Pakistan.	Phycology Research and Behavior Management	13: 1047 - 1055
Maculopapular rash following tetanus toxoid injection	Open Journal of Clinical and Medical Case Reports	6 (11)
Utilizing Hospital Formulary System in Nepal	Journal of Nepal Health Research Council	18 (2); 337-339
Different modes of transmission and containment strategies of COVID-19	Europasian Journal of Medical Sciences	2(2)

Prof. Dr. Nasir Abbas

Title of Research Paper	Name of Publishing Journal	Vol.
Personalized fast-dissolving tablets for managing hypertensive crisis: In-vitro/In-vivo characterization	Polymers	12/ 3057 doi:10.3390/polym12123057



Improvement of Physico-mechanical and pharmacokinetic attributes of naproxen by cocrystalization with L-alanine	Journal of Drug Delivery Science and Technology	Online
Design and in-vitro characterization of orally disintegrating modified release tablets of naproxen sodium."	Turkish Journal of Pharmaceutical Sciences	17(5):486-491 DOI: 10.4274/tjps.galenos.2019.24445
Prediction of lisinopril pediatric dose from the reference adult dose by employing a physiologically based pharmacokinetic model	BMC Pharmacology and Toxicology	21, no. 1 : 1-14.
Polymer blend: a new approach for eliminating curing effect of aqueous dispersion coatings.	Brazilian Journal of Pharmaceutical Sciences	http://dx.doi.org/10.1590/s2175-97902020000118562
Enhancement of solubility and dissolution rate of ebastine fast-disintegrating tablets by solid dispersion method	Tropical Journal of Pharmaceutical Research	19, no. 9, 1797-1805
Co-milling of oxcarbazepine with Soluplus for the enhancement of solubility and dissolution rate	Egyptian Pharmaceutical Journal	19, no. 3. 291-296.
Drug loading and printability of two different grades of prefabricated polyvinyl alcohol filaments for fused deposition modeling-based 3D printing	Journal of 3D printing in medicine	4(2), https://doi.org/10.2217/3dp-2020-0002
Fabrication of modified-release custom-designed ciprofloxacin tablets via fused deposition modeling 3D printing	Journal of 3 D Printing in medicine	4(1), 17–27
Effect of solubilizing aids on the entrapment of loratadine in prefabricated PVA filaments used for FDM based 3D-printing	Acta Poloniae Pharmaceutica and Drug Research	Vol. 77 No. 1, 175-182
Quaternary ammonium palmitoyl glycol chitosan-based nano-doxorubicin delivery system: Potential applications for cancer treatment and theranostic	Importance & Applications of Nanotechnology	Book chapter
Polymer blend: a new approach for eliminating curing effect of aqueous dispersion coatings	Brazilian Journal of Pharmaceutical Sciences	56: e18309 1-17
Prediction of lisinopril pediatric dose from the reference adult dose by employing a physiologically based pharmacokinetic model	BMC Pharmacology and Toxicology	21:56
Exploration of a New Source of Sustainable Nanomaterial from the Koh-e-Suleiman Mountain Range of Pakistan for Industrial Applications	Scientific Report Nature	10(1), 1-14
Evaluation of solubility and dissolution of lamotrigine using lipid based microparticulate carriers: An in-vitro analysis	Pakistan Journal of Pharmaceutical Sciences	33(1)



In vivo Evaluation of a Novel Chitosan-Polycaprolactone Based Mucoadhesive Gastro-Retentive Sustained Release Drug Delivery System for Milnacipran HCl	AAPS PharmSciTech	https://doi.org/10.1208/s12249-019-1606-6
Antibiogram and recent incidence of multi-drug resistant carbapenemase producing Escherichia coli isolated from paediatric patients	Pakistan Journal of Medical Sciences	36 (2)
Mechano-chemical Activation of Oxcarbazepine for the Enhancement of Solubility and Dissolution Rate	Latin American Journal of Pharmacy	39 (5): 963-8
Improved dissolution rate of oxcarbazepine by centrifugal spinning: in-vitro, in-vivo implications	Pharmaceutics	Proceedings 2020, 4, x;
Formulation of the Racecadotril Capsules (100mg), Method Validation and Stability Studies	Pharmaceutics	10.3390/ECMC2020-07359

Dr. Muhammad Islam

Title of Research Paper	Name of Publishing Journal	Vol.
In-vivo Evaluation of Anti-urolithiatic Activity of Different Extracts of Peel and Pulp of Cucumis melo L. in Mice Model of Kidney Stone Formation	Pakistan Journal of Zoology	
Antibiotic prescribing trends in patients with upper respiratory tract infections reporting to tertiary care hospitals of Lahore.	Pakistan Journal of Pharmaceutical Sciences	
Knowledge, attitude, and practices of healthcare professionals on COVID-19 and risk assessment to prevent the epidemic spread: A multicenter cross-sectional study from Punjab, Pakistan	International Journal of Environmental Research and Public Health	
Antibiotic susceptibility patterns of bacterial isolates of patients with upper respiratory tract infections" in its current form for publication in the Brazilian Journal of Pharmaceutical Sciences	Brazilian Journal of Pharmaceutical Sciences	
Assessing the Impact of COVID-19 on the Mental Health of Healthcare Workers in Three Metropolitan Cities of Pakistan	Psychology Research and Behavior Management	
Assessment of Undergraduate Pharmacy Students' Attitude Towards Pharmaceutical Care in Pakistan: Practice Implications	Journal of Multidisciplinary Healthcare	
Investigations of Olea ferruginea Royle bark extracts for potential in-vitro anti-diabetic and anti-cancer effects	Turkish Journal of Chemistry	
Perspectives of community pharmacists in Pakistan about practice change and implementation of extended pharmacy services: a mixed method study",	International Journal of Clinical Pharmacy	



Perceptions of and Barriers to Ethical Promotion of Pharmaceuticals in Pakistan; Perspectives of Medical Representatives and Doctors	BMC Medical Ethics	
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Dr. Amjad Hussain

Title of Research Paper	Name of Publishing Journal	Vol.
Effect of Solubilizing Aids on The Entrapment of Loratidine in Pre-Fabricated PVA Filaments Used for FDM Based 3D-Printing.	Acta Polonea Drug research	Vol. 77 No. 1 pp. 175-182
Linking traditional anti-ulcer use of rhizomes of <i>Bergenia ciliata</i> (Haw.) to its anti- <i>Helicobacter pylori</i> constituents	Natural product research	34(4) 541-544
Preparation and characterization of indomethacin loaded films by piezoelectric inkjet Printing: A personalized medication approach.	Pharmaceutical development and technology	Vol.25(2) 197-205
In vivo Evaluation of a Novel Chitosan-Polycaprolactone Based Mucoadhesive Gastro-Retentive Sustained Release Drug Delivery System for Milnacipran HCl.	AAPS PharmSciTech	Vol.21 pp. 1-11
Engineering and Characterization of BCG-loaded polymeric microneedles	Journal of drug targeting	VOL. 28, NO. 5, 525–532
Evaluation of solubility and dissolution of lamotrigine using lipid based microparticulate carriers: An in-vitro analysis	Pakistan Journal of Pharmaceutical sciences	33(1S) 299-306
Mechano-chemical activation of oxcarbazepine for the enhancement of solubility and dissolution rate	Latin American Journal of pharmacy	39(5) 963-967
Formulation, Optimization and Characterization of Chitosan Monodisperse Microparticles for Sustained Delivery of Hydrochlorothiazide HCl	Pharmaceutical Sciences	26(3) 306-313
Off-Label Antibiotic Use in Specialized Children Care Hospital of Punjab, Pakistan: Finding and Implications: Off-label Antibiotic Use in Pediatrics"	The Journal of Infection in Developing Countries	14(5):540-544.
Fabrication of modified-release custom-designed ciprofloxacin tablets via fused deposition modeling 3D printing	Journal of 3D printing in medicine – Future medicine	4(1), 17–27
Prediction of lisinopril pediatric dose from the reference adult dose by employing a physiologically based pharmacokinetic model	BMC Pharmacology and Toxicology	2020-21(56)
Polymer blend: a new approach for eliminating curing effect of aqueous dispersion coatings	BJPR	Vol.56 Page 1-17
Design and in-vitro characterization of orally disintegrating modified release tablets of naproxen sodium	Turkish Journal of Pharmaceutical sciences	17(5):486-491



Enhancement of solubility and dissolution rate of ebastine fast-disintegrating tablets by solid dispersion method	Tropical Journal of Pharmaceutical research	19 (9): 1797-1805
Co-milling of oxcarbazepine with soluplus for the enhancement of solubility and dissolution rate	Egyptian Pharmaceutical Journal	IP: 39.45.46.180 Vol 19 issue 3 Page 291-296
Drug loading and printability of two different grades of prefabricated polyvinyl alcohol filaments for fused deposition	Journal of 3D Printing in Medicine – Future medicine	10.2217/3dp-2020-0002
Personalised 3D Printed Fast-Dissolving Tablets for Managing Hypertensive Crisis: In-Vitro/In-Vivo Studies	Polymers	Published online 20 December 2020
Improvement of Physico-mechanical and pharmacokinetic attributes of naproxen by cocrystallization with L-alanine.	JDDST	Online 21 November

Dr. Alamgeer

Title of Research Paper	Name of Publishing Journal	Vol.
Endothelium-independent vasorelaxant effect of <i>Asphodelus tenuifolius</i> Cav. via inhibition of myosin light chain kinase activity in the porcine coronary artery	Journal of Ethnopharmacology	269
<i>Ipomoea hederacea</i> Jacq.: A plant with promising antihypertensive and cardio-protective effects	Journal of Ethnopharmacology	
Phytochemical profiling, antioxidant and antiproliferation potential of <i>Euphorbia milii</i> var.: Experimental analysis and in-silico validation	Saudi Journal of Biological Sciences	
Appraisal of disease modifying potential of amlodipine as an anti-arthritis agent; new indication for an old drug.	Inflammopharmacology	
<i>Asphodelus tenuifolius</i> extracts arrested inflammation and arthritis through modulation of TNF- α , NF- κ B, ILs, and COX-2 activities in in vivo models	Inflammopharmacology	
Blood pressure lowering effects of <i>Ranunculus scleratus</i> Linn. in normal and fructose induced hypertensive rats and estimation of underlying mechanisms	Pakistan journal of pharmaceutical sciences	33
Evaluation of effect of <i>Acacia jacquemontii</i> Benth on blood pressure in normotensive and fructose induced hypertensive Sprague Dawley rats: An Ethnopharmacological approach	Pakistan journal of pharmaceutical sciences	33
Study on vascular mechanisms underlying the hypotensive effect of <i>Sorghum halepense</i> (L).	Pakistan journal of pharmaceutical sciences	33



Evaluation of anti-inflammatory and analgesic activities of aqueous methanolic extract of <i>Ranunculus muricatus</i> in albino mice.	Pakistan journal of pharmaceutical sciences	
Appraisal of <i>in vitro</i> , <i>in vivo</i> and multi- targeted molecular docking analysis of atorvastatin to elucidate its anti-arthritis potential	Pakistan journal of pharmaceutical sciences	
<i>In-vivo</i> and <i>in-vitro</i> studies to investigate the anti-diabetic mechanisms underlying <i>Moringa oleifera</i> leaf ethanol extracts	Pakistan journal of pharmaceutical sciences	
Phytochemical analysis and reappraisal of diuretic activity of <i>Delphinium brunonianum</i> Royle and its mode of action in experimental rats	Pakistan journal of pharmaceutical sciences	
Repurposing Drugs for COVID-19: An Approach for Treatment in the Pandemic	Alternative therapies,	
Phytochemical analysis and hypotensive potential of <i>Teucrium stocksianum</i> Boiss.	Pakistan journal of pharmaceutical sciences	

Dr. Rukhsana Anwar

Title of Research Paper	Name of Publishing Journal	Vol.
Methanolic Extract of <i>Pimpinella anisum</i> L. Prevents Dementia by Reducing Oxidative Stress in Neuronal Pathways of Hypermnestic Mice	Pakistan Journal of Zoology	52
Amelioration of Bleomycin and Methotrexate Induced Pulmonary Toxicity by Serratiopeptidase and Fisetin	Nutrition and Cancer	72

Dr. Imran Tariq

Title of Research Paper	Name of Publishing Journal	Vol.
Downregulation of MDR 1 gene contributes to tyrosine kinase inhibitor induce apoptosis and reduction in tumor metastasis: A gravity to space investigation	International Journal of Pharmaceutics	591
Lipodendriplexes mediated enhanced gene delivery: a cellular to pre-clinical investigation	Scientific Reports: Nature	21446
Sensitivity of Papilloma Virus-Associated Cell Lines to Photodynamic Therapy with Curcumin-Loaded Liposomes	Cancers: MDPI	3278
Development and Characterization of Bioadhesive Film Embedded with Lignocaine and Calcium Fluoride Nanoparticles	AAPS PharmSciTech	21



Development and Characterization of Ultrasound Activated Lipopolyplexes for Enhanced Transfection by Low Frequency Ultrasound in In Vitro Tumor Model	Macromolecular Bioscience	2000173
Potent Cytotoxicity of Four Cameroonian Plant Extracts on Different Cancer Cell Lines	Pharmaceuticals: MDPI	357
Targeted ErbB3 cancer therapy: A synergistic approach to effectively combat cancer	International Journal of Pharmaceutics	575
Wavelength dependent photo-cytotoxicity to ovarian carcinoma cells using temoporfin loaded tetraether liposomes as efficient drug delivery system	European Journal of Pharmaceutics and Biopharmaceutics	150

Dr. Rahat Shamim

Title of Research Paper	Name of Publishing Journal	Vol.
Artificial Neural Network (ANN) Approach to Predict an Optimized pH-Dependent Mesalamine Matrix Tablet	Drug Design, Development and Therapy 2020	14
In Vivo Evaluation of a Novel Chitosan-Polycaprolactone Based Mucoadhesive Gastro-Retentive Sustained Release Drug Delivery System for Milnacipran HCl	AAPS PharmSciTech (2020)	21
Off-label antibiotic use in a specialized children care hospital in Punjab, Pakistan: Findings and implications	<i>J. Infect Dev Ctries</i> 2020	14
Design and <i>In Vitro</i> Characterization of Orally Disintegrating Modified Release tablets of naproxen sodium.	Turk J Pharm Sci. 2020	17
The Potentially Recommended Pharmacotherapy for COVID-19.	Alternative Therapies in Health and Medicine 2020	

Dr. Furqan K. Hashmi

Title of Research Paper	Name of Publishing Journal	Vol.
In pursuit of COVID-19 treatment strategies; are we triggering antimicrobial resistance?"	Disaster Medicine and Public Health Preparedness, 2020	
Perspectives of community pharmacists in Pakistan about practice change and implementation of extended pharmacy services: a mixed method study	International Journal of Clinical Pharmacy, 2020	
Perceptions of and Barriers to Ethical Promotion of Pharmaceuticals in Pakistan; Perspectives of Medical Representatives and Doctors	BMC Medical Ethics, 2020	
Prescription understanding among out-patients in government and private hospitals: A cross-sectional study in Lahore, Pakistan	Journal of Healthcare Quality Research, 2020	



Assessing the impact of COVID-19 on the mental health of healthcare workers in three metropolitan cities of Pakistan	Psychology Res. and Behavior Management 2020	13
Assessment of undergraduate pharmacy students' attitude towards pharmaceutical care in Pakistan: Practice implications".	Journal of Multidisciplinary Healthcare, 2020	13
A national study to assess pharmacists' preparedness against COVID-19 during its rapid rise period in Pakistan."	Plos One, 2020	15
Misinformation in wake of the COVID-19 outbreak: Fueling shortage and misuse of lifesaving drugs in Pakistan	Disaster Medicine and Public Health Preparedness, 2020	
Concerns of HIV-positive migrant workers in COVID-19 pandemic: A call for action"	Journal of Global Health, 2020	10
Knowledge, attitude and practices of healthcare professionals on COVID-19 and risk assessment to prevent the epidemic spread: A multicenter cross-sectional study from Punjab, Pakistan	International Journal of Environmental Research and Public Health, 2020	17
Patterns of physicians' knowledge, attitude and prescribing trends against upper respiratory tract infections in Lahore, Pakistan	Pakistan Journal of Pharmaceutical Sciences, 33 (4), July 2020	33
Knowledge, attitude and practices toward COVID-19 in primary healthcare providers; across-sectional study from three tertiary care hospitals of Peshawar, Pakistan	Journal of Community Health 2020	
Threat of COVID-19 vaccine hesitancy in Pakistan: the need for measures to neutralize misleading narratives	American Journal of Tropical Medicine and Hygiene 2020	103
Point prevalence surveys of antimicrobial use: A systematic Review and the implications	Expert Review of Anti-infective Therapy, 2020	18
Physicians' understanding and practices of pharmacovigilance: qualitative experience from a lower middle-income country.	International Journal of Environmental Research and Public Health, 2020	17
Religious cliché and stigma: a brief response to overlooked barriers in COVID-19 management	Journal of Religion and Health 2020	59
Assessment of Knowledge, Attitude and Practices of Healthcare Professionals towards Adverse Drug Reactions Monitoring and Reporting: A cross-sectional study in Lahore, Pakistan	Modern Care Journal, 2020	17



Preventing COVID-19 in low- and middle-income countries"	Drugs & Therapy Perspectives, 2020	20
Paradigm Shift in Practice: The Role of Pharmacists in COVID-19 Management. 2020;	Europasian J Med Sci	2
Nutritional management of diabetes"	Diabetes & Obesity International Journal 2020	5 (1)
Clinical Pharmacy practice in Nepal; current scenario and the way forward	Pharmaceutical Drug Regulatory Affairs Journal, 2020	3 (1)

Dr. Ejaz Ali

Title of Research Paper	Name of Publishing Journal	Vol.
Linking traditional anti-ulcer use of rhizomes of <i>Bergenia ciliata</i> (Haw.) to its anti- <i>Helicobacter pylori</i> constituents	Natural Product Research	34(4)
Phytochemical analysis and in vitro investigation of anti-inflammatory and xanthine oxidase inhibition potential of root extracts of <i>Bryophyllum pinnatum</i>	The Journal of Animal & Plant Sciences	30 (1)
Mechano-chemical activation of oxcarbazepine for the enhancement of solubility and dissolution rate	Latin American Journal of Pharmacy	39 (5)

RESEARCH COLLABORATIONS

- **Indigenous**
Hospital and Research Center
- **Foreign Linkages**
 - De Mont Fort University, UK
 - Professor Moustapha Kassem, KMEB Lab, Odense University Hospital, University of Southern Denmark.

Faculty of Sciences

CENTRE OF EXCELLENCE IN SOLID STATE PHYSICS

- **R&D. An Overview**
The Centre was assigned to start post-M.Sc. level teaching and research, and the Centre got engaged in offering M.Phil. Programme in 1974. Centre was the only institute in Pakistan offering M.Phil. degree for many years to come and the graduates secured jobs in the National Research Institutes and Educational Departments. Centre has now expanded its M.Phil. programme to offer state-of-the art programmes (Microelectronics and Nanotechnology) in Pakistan. Research Collaborations with UET (Lahore), IUB (Bahawalpur), BZU (Multan), LCWU (Lahore), FCC (Lahore) and NCP (Islamabad) in the country are



established. Internationally collaborations with Chinese Academy of Science Beijing (China), Laser Centre UTM (Malaysia), Institute of Electronics York University York (UK) are established. In Pakistan the Centre offers analytical facilities to MS/Ph.D. students of the Universities mentioned.

○ **Projects: Newly Launched**

Sr. No.	Project	Duration	Sponsoring Agency	Funding
1	Air Stable and High Mobility Solution Processed Organic Field Effect Transistors.	36 Months	HEC	HEC

○ **Publications**

- A. Khalid, Sk. Abbas, GM. Mustafa, S. Atiq, SS. Hussain, MS. Anwar, and S. Naseem, Analysis of dielectric dispersion and magnetoelectric coupling in BiFeO₃ and NiFe₂O₄ nanocomposites Ceramics International, 45, 2019, 24453
- AB. Javaid, I. Sadiq, H. Shah, M. Idrees, S. Saeed, S. Hussain, M. Shahbaz, SS. Jan, S. Riaz, S. Naseem, HM. Khan and F. Sadiq, Tunable properties of rare earth elements (Ce, Dy, Yb, La and Pr) substituted R-type hexagonal ferrites Journal of Material Science: Materials in Electronics, 30, 2019, 19394
- M. Arshad, AR. Khan, GM. Mustafa, S. Atiq, MA. Raza, S. Riaz and S. Naseem, Dielectric dispersion in CoFe₂O₄/PVDF nanocomposites influenced by ceramic contents and thermal mediation Journal of Material Science: Materials in Electronics, 30, 2019, 19289
- M. Tahir, S. Riaz, N. Ahmad, U. Khan, S. Atiq, MJ. Iqbal and S. Naseem, Anomalous dielectric behavior and correlation of barrier hopping mechanism with ferroelectricity in solvent assisted phase pure bismuth iron oxide nanoparticles Materials Research Bulletin, 119, 2019, 110543
- SU. Asif, S. Rizwan, MQ. Awan, MW. Khan, I. Sadiq, ME. Mazhar, A. Ahmad, SS. Hussain, EU. Khan, W. Hu and MN. Ashiq, Effect of Dy-Co on physical and magnetic properties of X-type hexaferrites (Ba_{2-x}Dy_xCu₂Fe_{28-y}Co_yO₄₆) Chinese Journal of Physics, 61, 2019, 47
- MZ. Iqbal, A. Khan, SS. Haider, MW. Iqbal and MJ. Iqbal, Magnetic Field Driven Mobility Tweaking in Graphene Journal of Nanoelectronics & Optoelectronics, 14, 2019, 1420
- MZ. Iqbal, A. Khan, S. Khan, N. Anwar, SS. Haider, MM. Faisal, MW. Iqbal, A. Ali, J. Iqbal and MJ. Iqbal, Formation of pn-Junction with Chemical Modification of Graphene-Hexagonal Boron Nitride Heterostructure Journal of Nanoelectronics & Optoelectronics, 14, 2019, 1427
- MZ. Iqbal, S. Khan, S. Siddique, MJ. Iqbal, S. Siddique, MM. Faisal, SS. Haider, S. Alam, M. Sulman, S. Zakar, MA. Kamran and T. Alharbi, Enhanced photoresponse and surface charge transfer mechanism of graphene-tungsten disulfide heterojunction Optical Materials, 98, 2019, 109426
- M. Khalid, JK. Khan, G. Mustafa, MS. Akhtar, ZA. Gilani, HMN-UI-HK. Asghar, S. Riaz and S. Naseem, Design and analysis of normally-on 4H-SiC Vertical Junction Field Effect Transistor (VJFET) using Sentaurus TCAD simulation Journal of Ovonic Research, 15, 2019, 335



- F. Mukhtar, S. Riaz, A. Awan, F. Rubab, ZN. Kayani and Naseem S. Structural and magnetization crossover in electrodeposited FeAl₂O₄ – effect of in situ oxidation” RSC Adv, 9, 2019, 38183
- JZ. Hashmi, K. Siraj, A. Latif, S. Naseem, M. Murray and G. Jose. The role of samarium incorporated structural defects in ZnO thin films prepared by femtosecond pulsed laser deposition Journal of Alloys and Compounds, 800, 2019, 191
- MZ. Iqbal, S. Khan, A. Rehman, SS. Haider, MA. Kamran, MRA. Karim, T. Alharbi, T. Hussain, S. Riaz, S. Naseem and MJ. Iqbal Enhancement in the mobility of solution processable polymer based FET by incorporating graphene interlayer Superlattices and Microstructures, 137, 2020, 106331
- ZN. Kayani, Maria, S. Riaz and S. Naseem, Magnetic and antibacterial studies of sol-gel dip coated Ce doped TiO₂ thin films: Influence of Ce contents Ceramics International, 46, 2020, 381
- M. Shahbaz, I. Sadiq, MMH. Butt, AB. Javaid, M. Idress, S. Hussain, F. Sadiq, S. Riaz, S. Naseem and HM. Khan, Peculiar magnetic behavior and structural, electrical, dielectric properties of substituted R-type hexagonal ferrites, Journal of Magnetism and Magnetic Materials, 499, 2020, 166309
- M. Tahir, S. Riaz, SS. Hussain, A. Awan, YB. Xu and S. Naseem, Solvent mediated phase stability and temperature dependent magnetic modulation in BiFeO₃ nanoparticles, Journal of Magnetism and Magnetic Materials, 503, 2020, 166563
- A. Riaz, Q. Ain, F. Kanwal, S. Ishaq, AR. Khan, GM. Mustafa, SK. Abbas, S. Naseem, SM. Ramay and S. Atiq, Identification of frequency regimes for short and long range mobility of charge carriers in GO/MnFe₂O₄/PPy nanocomposites Synthetic Metals, 263, 2020, 116366
- AR. Khan, GM. Mustafa, SK. Abbas, S. Atiq, M. Saleem, SM. Ramay and S. Naseem, Flexible ferroelectric and magnetic orders in BiFeO₃/MnFe₂O₄ nanocomposites to steer wide range energy and data storage capability, Results in Physics, 16, 2020, 102956
- I. Sanaullah, S. Riaz, T. Batool, BS. Bukari, HN. Khan, AN. Sabri and S. Naseem, Antibacterial performance of glucose-fructose added MW based zirconia coatings – Possible treatment for bone infection, Journal of the Mechanical Behaviour of Biomedical Materials, 104, 2020, 103621
- H. Nazli, R. Anjum, F. Iqbal, A. Awan, S. Riaz, ZN. Kayani and S. Naseem, Magneto-dielectric properties of in-situ oxidized magnesium-aluminium spinel thin films using electrodeposition, Ceramics International, 46, 2020, 8588
- ZN. Kayani, M. Anjum, S. Riaz, S. Naseem and T. Zeeshan, Role of Mn in biological, optical, and magnetic properties ZnO nano-particles, Applied Physics A, 126, 2020, 197
- N. Humera, S. Riaz, N. Ahmad, F. Arshad, R. Zafar, S. Ali, S. Idrees, H. Noor, S. Atiq and S. Naseem, Colossal dielectric constant and ferroelectric investigation of BaTiO₃ nano-ceramics, Journal of Materials Science: Materials in Electronics, 31, 2020, 5402



- ZN. Kayani, I. Wahid, Z. Saddiqe, S. Riaz, S. Waseem and S. Naseem, Tailoring of Optical, Biological and Magnetic Properties of nanocrystalline Fe doped TiO₂ Thin Films Materials Research Express, 6, 2020, 125062
- MW. Nafees, MU. Islam, M. Ajmal, M. Hussain, A. Iftikhar and S. Naseem, Effect of Al³⁺ substitution on the electrical and magnetic properties of Li-base ferrites, Materials Research Express, 6, 2020, 126121
- Z. Manzoor, A. Khalid, GM. Mustafa, SM. Ramay, S. Naseem and S. Atiq, Magnetoelectric coupling caused by strain mediation in hetero-structured spinel-perovskite multiferroic composites, Journal of Magnetism and Magnetic Materials, 500, 2020, 166409
- SK. Abbas, GM. Mustafa, M. Saleem, A. Mahmood, SM. Ramay, S. Atiq and S. Naseem, Morphologically controlled dielectric dispersion and energy density optimization in Co/Ni spinel ferrites Ceramics International, 46, 2020, 9765
- M. Tahir, S. Riaz, U. Khan, SS. Hussain, A. Nairan, A. Akbar, M. Saleem, S. Atiq and S. Naseem, Enhanced structural and magnetic ordering in as-synthesized Ca doped bismuth iron oxide nanoceramics, Journal of Alloys and Compounds, 832, 2020, 154725
- SK. Abbas, M. Saleem, S. Naseem, S. Riaz and S. Atiq, Synthesis of Ni₈₀Fe₂₀ permalloy antidots for high storage ferroelectric memories, Materials Letters, 271, 2020, 127852
- A. Quader, GM. Mustafa, SK. Abbas, H. Ahmad, S. Riaz, S. Naseem and S. Atiq, Efficient energy storage and fast switching capabilities in Nd-substituted La₂Sn₂O₇ pyrochlores Chemical Engineering Journal, 396, 2020, 125198
- T. Afzal, MJ. Iqbal, MZ. Iqbal, A. Sajjad, MA. Raza, S. Riaz, MA. Kamran, A. Numan and S. Naseem, Effect of post-deposition annealing temperature on the charge carrier mobility and morphology of DPPDTT based organic field effect transistors, Chemical Physics Letters, 750, 2020, 137507
- S. Islam, H. Bakhtiar, A. Alshoaibi, S. Riaz and S. Naseem, Thermally stable Au decorated silica-titania mesoporous nanocomposite for pH sensing evaluation, Applied Surface Science, 521, 2020, 146329
- T. Iqbal, M. Saleem, S. Riaz, S. Naseem, SK. Abbas, SM. Ramay and S. Atiq, Comparison of optical constants of sputtered MoS₂ and MoS₂/Al₂O₃ composite thin films, Journal of Materials Science: Materials in Electronics, 31, 2020, 7753
- S. Islam, H. Bakhtiar, Z. Haider, A. Alshoaibi, S. Riaz and S. Naseem, Silica-titania nanocomposite based fiber optic sensor for aromatic hydrocarbons detection, Optics Communications, 471, 2020, 125825
- ZN. Kayani, S. Rahim, R. Sagheer, S. Riaz and S. Naseem, Assessment of antibacterial and optical features of sol-gel dip coated La doped TiO₂ thin films, Materials Chemistry and Physics, 250, 2020, 123217
- M. Altaf, B. Rehman, NI. Sonil, S. Atiq, S. Riaz, S. Naseem and Z. Ullah, Ultrasensitive piezoresistive strain sensors based on CNTs/Ag-NPs coated highly stretchable textile, Journal of Materials Science: Materials in Electronics, 31, 2020, 9870



- SM. Muzaffar, S. Naeem, S. Yaseen, S. Riaz, ZN. Kayani and S. Naseem, Microwave assisted tuning of optical and magnetic properties of zinc oxide nanorods-efficient antibacterial and photocatalytic agent, *Journal of Sol-Gel Science and Technology*, 95, 2020, 88
- S. Saeed, I. Sadiq, S. Hussain, M. Idrees, F. Sadiq, S. Riaz and S. Naseem, La³⁺-substituted β -ferrite: Investigation of structural, dielectric, FTIR and electrical polarization properties, *Journal of Alloys and Compounds*, 831, 2020, 154854
- ZN. Kayani, H. Nazli, S. Kousar, S. Riaz and S. Naseem, Dip-coated V doped ZnO thin films: Dielectric and magnetic properties, *Ceramics International*, 46, 2020, 14605
- S. Khan, ZH. Shah, S. Riaz, N. Ahmad, S. Islam, MA. Raza and S. Naseem, Antimicrobial activity of citric acid functionalized iron oxide nanoparticles – Superparamagnetic effect *Ceramics International*, 46, 2020, 10942
- ZN. Kayani, T. Chaudhry, S. Riaz and S. Naseem, Dielectric and Magnetic Properties of Rare-Earth Metal Ce-Doped ZnO Thin Films, *Journal of Electronic Materials*, 49, 2020, 3114
- ZN. Kayani, H. Nazli, S. Kousar, S. Riaz and S. Naseem, Dip-coated V doped ZnO thin films: Dielectric and magnetic properties, *Ceramics International*, 46, 2020, 14605
- A. Khalid, M. Saleem, S. Naseem, SM. Ramay, HM. Shaikh and S. Atiq, Magneto-electric coupling and multifunctionality in BiFeO₃–CoFe₂O₄ core-shell nano-composites, *Ceramics International*, 46, 2020, 12828
- A. Awan, S. Riaz, AF. Butt, N. Ahmad, Z. Ahmad and S. Naseem, Stirring-mediated anomalous dielectric behaviour of electrodeposited and in situ oxidized FeAl₂O₄ thin films, *Journal of Materials Science: Materials in Electronics*, 31, 2020, 814
- ZN. Kayani, Z. Bashir, S. Riaz, S. Naseem and Z. Saddiqe, Transparent boron-doped zinc oxide films for antibacterial and magnetic applications, *Journal of Materials Science: Materials in Electronics*, 31, 2020, 11911
- I. Sadiq, F. Sadiq, A. Shahzad, A. Sadiq, HM. Khan, S. Naseem and S. Riaz, Theoretical and Experimental Investigation of Microwave Absorbing X-Type Hexaferrites Nanomaterial Synthesized by Cotton Soaked Method, *IEEE Transactions on Magnetics*, 56, 2020, 2200110
- S. Hussain, I. Sadiq, SS. Jan, M. Idrees, F. Sadiq, S. Riaz and S. Naseem, Exploration of structural, optical, dielectric properties and curve fittings of Yb³⁺-substituted β -type hexagonal ferrites, *Journal of Materials Science: Materials in Electronics*, 31, 2020, 17931
- S. Khan, N. Humera, S. Niaz, S. Riaz, S. Atiq and S. Naseem, Simultaneous normal – Anomalous dielectric dispersion and room temperature ferroelectricity in CBD perovskite BaTiO₃ thin films, *Journal of Materials Research and Technology*, 9, 2020, 11439
- SK. Abbas, GM. Mustafa, M. Saleem, M. Sufyan, S. Riaz, S. Naseem and S. Atiq, Ethylene glycol assisted three-dimensional floral evolution of BiFeO₃ - based nanostructures with effective magneto-electric response, *Royal Society Open Science*, 7, 2020, 200642
- N-ul-Aarifeen and A. Ahmad, Lattice thermal conductivity of CdxZn1-xX (X=O, S, Se, Te) from first principles, *Materials Chemistry and Physics*, 251, 2020, 123099



- N-ul-Aarifeen and A. Ahmad, Theoretical Prediction of Thermodynamic Properties of $\text{Cd}_x\text{Zn}_{1-x}\text{S}$ ($0 \leq x \leq 1$) under the Effects of Pressure (0–10 GPa) and Temperature (0–1200 K), *Acta Physica Polonica A*, 137, 2020, 332
- A. Bakar, A. Ahmad, MF. Khan, N-ul- Aarifeen, MI. Jamil and M. Asif, Insight into the structural, vibrational and thermodynamic properties of SmX ($\text{X} = \text{S}, \text{Se}, \text{Te}$) chalcogenides: First-principles investigations, *Physica B: Condensed Matter*, 576, 2020, 411715
- A. Ahmad, A. Bakar, N. Khan and A. Asif, Reststrahlen band studies in cubic perovskite materials SmXO_3 ($\text{X} = \text{Al}, \text{Co}$) by computational investigations, *International Journal of Modern Physics B*, 34(21), 2020, 2050206
- A. Ahmad, A. Bakar, M. Shoaib, R. Ahmed and A. Asif, Structural, elasto-mechanical and phonon-related properties of MnCrP : A DFT Study, *International Journal of Modern Physics B*, 34(21), 2020, 2050200
- M. Ahmed, A. Ahmad, A. Bakar and M. Asif, Density functional study of CoFeCrZ ($\text{Z} = \text{Al}, \text{Si}, \text{Ga}, \text{Ge}$) quaternary Heusler alloys for phonon spectra, *International Journal of Modern Physics B*, 34(25), 2020, 2050215
- S. Ishaq, F. Kanwal, S. Atiq, M. Moussa, U. Azhar and D. Losic, Dielectric properties of graphene/titania/polyvinylidene fluoride ($\text{Gr}/\text{TiO}_2/\text{PVDF}$) nanocomposites, *Materials*, 13, 2020, 205
- MU. Farooq, S. Atiq, M. Zahir, MS. Kiani, SM. Ramay, B. Zou and J. Zhang, Spin-polarized exciton formation in Co-doped GaN nanowires, *Materials Chemistry and Physics*, 245, 2020, 122756
- F. Sehar, S. Anjum, Z. Mustafa and S. Atiq, Co-existence of Ferroelectric and Ferromagnetic Properties of Bi^{3+} Substituted M-type Barium Hexaferrites, *Journal of Superconductivity and Novel Magnetism*, 33, 2020, 2073
- F. Ullah, MT. Qureshi, SK. Abbas, S. Atiq, U. Ikhlaiq, Z. Iqbal, M. Saleem and MS. Anwar, Dilute magnetic ions mediated magneto-dielectric, optical and ferroelectric response of MgAl_2O_4 spinels, *Journal of Physics: Condensed Matter*, 32, 2020, 365701
- S. Saba, GM. Mustafa, M. Saleem, SM. Ramay and S. Atiq, Ferroelectric polymer/ceramic nanocomposites with low energy losses, *Polymer Composites*, 41, 2020, 3271
- S. Atiq, MT. Ansar, A. Hassan, SK. Abbas, T. Iqbal, M. Aslam, MJ. Iqbal and A. Mahmood, Interlayer effect on photoluminescence enhancement and band gap modulation in Ga-doped ZnO thin films, *Superlattices and Microstructures*, 144, 2020, 106576
- A. Zulfiqar, AR. Khan, SM. Ramay, A. Mahmood and S. Atiq, Elucidating hydrothermally synthesized CNTs- MnO_2 composites through electrochemical scrutiny for wielding electrodes in energy storage, *ECS Journal of Solid State Science and Technology*, 9, 2020, 051008
- A. Ghaffar, G. Ali, S. Zawar, M. Hasan, GM. Mustafa, S. Atiq and SM. Ramay, Electrochemical performance of Li^+ insertion/extraction in Ni-substituted ZnCo_2O_4 emerging as highly efficient anode material, *RSC Advances*, 10, 2020, 28550



- S. Anjum, A. Mansoor, Z. Mustafa and S. Atiq, Comparison between centro symmetric and non centro symmetric chromium substituted M-type barium hexa ferrites, *Applied Physics A-Materials Science & Processing*, 126, 2020, 731
- S. Islam, H. Bakhtiar, A. Alshoaibi, Z. Haider, S. Riaz and S. Naseem, Fast Responsive thermally stable silica microspheres for sensing evaluation: sol-gel approach, *Journal of Sol-Gel Science and Technology*, 96, 2020, 614
- S. Rasool, MA. Raza, F. Manzoor, Z. Kanwal, S. Riaz, MJ. Iqbal and S. Naseem, Biosynthesis, characterization and anti-dengue vector activity of silver nanoparticles prepared from *Azadirachta indica* and *citrullus colocynthis*, *Royal Society Open Science*, 7(9), 2020, 200540
- S. Arif, S. Saba, GM. Mustafa, M. Akhtar, M. Saleem, S. Riaz and S. Atiq, Analysis of recoverable and energy loss density mediated by Ni/Cr Co-doping in BiFeO₃, *Journal of Materials Science: Materials in Electronics*, 31, 2020, 14775
- M. Imran, R. Ahmad, N. Afzal, M. Rafique, MA. Raza and Z. Khaliq, Structural, optical and electrical characteristics of silver ion irradiated ZnO film on flexible substrate, *Supperlattices and Microstructures*, 144, 2020, 106586
- MZ. Iqbal, SS. Haider, S. Siddique, MRA. Karim, S. Zakar, M. Tayyab, A. Khan, M. Sulman, S. Alam, MM. Faisal, MA. Kamran, T. Alherbi and MJ. Iqbal, Capacitive and diffusion-controlled mechanism of strontium oxide based symmetric and asymmetric devices, *Journal of Energy Storage*, 27, 2020, 101056
- MJ. Iqbal, D. Reuter, AD. Wieck, and CVD. Wal, Characterization of low-resistance ohmic contacts to a two-dimensional electron gas in a GaAs/AlGaAs heterostructure, *The European Physical Journal Applied Physics*, 89, 2020, 20101
- MZ. Iqbal, S. Alam, AM. Afzal, MJ. Iqbal, K. Yaqoob, MA. Kamran, MRA. Karim and T. Alherbi, Binary composites of strontium oxide/polyaniline for high performance supercapattery devices, *Solid State Ionics*, 347, 2020, 115276
- MZ. Iqbal, S. Zakar, SS. Haider, AM. Afzal, MJ. Iqbal, MA. Kamran, A. Numan, Electrodeposited CuMnS and CoMnS electrodes for high-performance asymmetric supercapacitor devices, *Ceramics International*, 46, 2020, 21343
- S. Zawar, S. Atiq, M. Tabasum, S. Riaz and S. Naseem, Highly stable dielectric frequency response of chemically synthesized Mn-substituted ZnFe₂O₄, *Journal of Saudi Chemical Society*, 23, 2019, 417
- S. Islam, H. Bakhtiar, Z. Haider, S. Riaz, S. Naseem, K. Chaudhary, LP. Suan, SS. Usman and MS-bin- A. Aziz, BPB dye confined growth of surfactant-assisted mesostructured silica matrix fiber optic sensing tracers, *Journal of Saudi Chemical Society*, 23, 2019, 427
- A. Batool, F. Kanwal, S. Asim, S. Riaz, S. Atiq, S. Naseem, MW. Mushtaq and Z. Ullah, Thermally Stable Polypyrrole/Hematite Composites with Tunable Dielectric and Magnetic Properties, *Polymer Science, Series A*, 61, 2019, 112



- T. Amjad, I. Sadiq, AB. Javaid, S. Riaz, S. Naseem and M. Nadeem, Investigation of structural, electrical, electrical polarization and dielectric properties of CTAB assisted Ni²⁺ substituted R-type nano-hexaferrites, *Journal of Alloys and Compounds*, 770, 2019, 1112
- S. Islam, H. Bakhtiar, WNW. Shukri, MSAbd. Aziz, S. Riaz and S. Naseem, Optically active-thermally stable multi-dyes encapsulated mesoporous silica aerogel: A potential pH sensing nanomatrix, *Microporous and Mesoporous Materials*, 274, 2019, 183
- A. Akbar, H. Yousaf, S. Riaz and S. Naseem, Role of Precursor to Solvent Ratio in Tuning the Magnetization of Iron Oxide Thin Films –A Sol-Gel Approach, *Journal of Magnetism and Magnetic Materials*, 471, 2019, 14
- MJ. Iqbal, H. Haq, S. Riaz, MA. Raza, MZ. Iqbal, MU. Chaudhry and S. Naseem, On the Operational, shelf life and degradation mechanism in polymer field effect transistors, *Superlattices and Microstructures*, 126, 2019, 125
- Z. Kanwal, MA. Raza, F. Manzoor, S. Riaz, G. Jabeen, S. Fatima and S. Naseem, A Comparative Assessment of Nanotoxicity Induced by Metal (Silver, Nickel) and Metal Oxide (Cobalt, Chromium) Nanoparticles in *Labeo rohita*, *Nanomaterials*, 9, 2019, 309
- ZN. Kayani, S. Sahar, S. Riaz and S. Naseem, Tuning of optical and antibacterial characteristics of ZnO thin films: Role of Ce content, *Ceramics International*, 45 (3), 2019, 3930
- M. Imran, S. Riaz, I. Sanaullah, U. Khan, AN. Sabri and S. Naseem, Microwave assisted synthesis and antimicrobial activity of Fe₃O₄-doped ZrO₂ nanoparticles, *Ceramics International*, 45, 2019, 10106
- H. Yousaf, SM. Muzaffar, S. Riaz, N. Ahmad, S. Shahzadi and S. Naseem, Tuning of opto-electrical properties of hematite thin films using Co²⁺ doping, *Journal of Materials Science: Materials in Electronics*, 30 (4), 2019, 4203
- IA. Shah, N. Hassan, S. Riaz, S. Naseem, F. Xu and Z. Ullah, Realization of Magnetostructural Transition and Magnetocaloric Properties of Ni–Mn–Mo–Sn Heusler Alloys, *Journal of Superconductivity and Novel Magnetism*, 32 (3), 2019, 659
- A. Awan, M. Nadeem, S. Riaz, SS. Hussain, F. Majid and S. Naseem, Molarity dependent oscillatory structural and magnetic behavior of phase pure BiFeO₃ thin films: Sol–gel approach, *Ceramics International*, 45 (4), 2019, 5111
- M. Sufyan, S. Atiq, SK. Abbas, M. Younis, S. Riaz and S. Naseem, Magnetically driven robust polarization in (1– x) BiFeO₃–xPbTiO₃ multiferroic composites, *Materials Letters*, 238, 2019, 10
- ZN. Kayani, S. Arshad, S. Riaz and S. Naseem, Investigation of structural, optical and magnetic characteristics of Co₃O₄ thin films *Applied Physics A*, 2019, 125:196
- ZN. Kayani, H. Bashir, S. Riaz and S. Naseem, Optical properties and antibacterial activity of V doped ZnO used in solar cells and biomedical applications, *Materials Research Bulletin*, 115, 2019, 121
- W. Azeem, S. Riaz, A. Bukhtiar, SS. Hussain, YB. Xu and S. Naseem, Ferromagnetic ordering and electromagnons in microwave synthesized BiFeO₃ thin films *Journal of Magnetism and Magnetic Materials*, 475, 2019, 60



- A. Hassan, GM. Mustafa, SK. Abbas, S. Atiq, M. Saleem, S. Riaz and S. Naseem, Correlation of La-mediated structural transition and dielectric relaxation in $\text{Bi}_2\text{Mg}_{2/3}\text{Nb}_{4/3}\text{O}_7$ pyrochlores, *Ceramics International*, 45, 2019, 14576
- S. Islam, H. Bakhtiar, M. Aziz, S. Riaz, MS-Abd -Aziz, S. Naseem and N. Elshikeri, Optically active phenolphthalein encapsulated gold nanodendrites for fiber optic pH sensing *Applied Surface Science*, 485, 2019, 323
- ZN. Kayani, S. Riaz, S. Iram and S. Naseem, Structural and magnetic properties of nano-crystalline FeCoNiN thin films, *Journal of Saudi Chemical Society*, 23 (4), 2019, 392
- GM. Mustafa, M. Saleem, S. Atiq, S. Riaz, SA. Siddiqi and S. Naseem, Structural tuning of dielectric properties of Ce-substituted $\text{Nd}_2\text{Zr}_2\text{O}_7$, *Journal of Saudi Chemical Society*, 23 (4), 2019, 397
- Z. Kanwal, MA. Raza, S. Riaz, S. Manzoor, A. Tayyeb, I. Sajid and S. Naseem, Synthesis and characterization of silver nanoparticle-decorated cobalt nanocomposites (Co@AgNPs) and their density-dependent antibacterial activity, *Royal Society Open Science*, 6(5), 2019, 182135
- S. Islam, H. Bakhtiar, M. Aziz, S. Riaz and S. Naseem, Mesoporous anatase based opto-chemical sensor, *Materials Science in Semiconductor Processing*, 100, 2019, 236
- M. Tahir, S. Riaz, N. Ahmad, SS. Hussain, M. Saleem and S. Naseem, Role of Barium Substitution on Oxygen Vacancy Reduction in BiFeO_3 Thin Films, *Journal of Materials Science-Materials in Electronics*, 30, 2019, 13305
- IU. Haq, AA. Khurram, R. Hussain and S. Naseem, Designing and manufacturing of a lightweight and broadband electromagnetic wave absorber with combined carbonaceous and magnetic nanofillers, *Polymers and Polymer Composites*, 27, 2019, 215
- A. Ahmad, S. MB, and A. Bakar, First-Principles study for structural, elastic and mechanical properties of CuCoMnZ ($\text{Z}=\text{Si, Sn, Sb}$) Heusler alloys, *Material Research Express*, 6, 2019, 026522
- A. Ahmad, M. Rizwan and Abu Bakar, Computational investigations of XMgGa ($\text{X}=\text{Li, Na}$) half Heusler compounds for thermo-elastic and vibrational properties, *Physica B: Condensed Matter*, 554, 2019, 102
- A. Ahmad, A. Asif, A. Bakar, M. Rizwan, HB. Munir, S. MB, and M. Asif, DFT Study of CuCoMnX ($\text{X}=\text{Si, Sn, Sb}$) Quaternary Heusler Alloys for Phonon Spectra, *Modern Physics Letters B*, 33, 2019, 1950155
- A. Ahmad, A. Bakar, M. Rizwan, MA. Fareed, HB. Munir and A. Asif, Study of thermo-elastic and lattice dynamics properties of half-Heusler compounds XMgAl ($\text{X}=\text{Li, Na}$) by computational investigations, *Modern Physics Letters B*, 33, 2019, 1950093
- A. Ahmad, H. Maaz, A. Bakar and MI. Jamil, Reststrahlen Band Studies of RuCrX ($\text{X}=\text{Si, Ge, Sn}$) Half Heusler Alloys, *Journal of Electronic Materials*, 48, 2019, 5323
- A. Iftikhar, A. Ahmad, I. Ahmad, A. Bakar, HB. Munir, N-UI- Aarifeen and M. Asif, Computational Study of Ru_2TiZ ($\text{Z}=\text{Si, Ge, Sn}$) for structural, Mechanical and Vibrational properties, *Zeitschrift fur Naturforschung A (ZNA)*, 74(6), 2019, 454



- A. Bakar, M. Afzal, M. Bashir, A. Ahmad, A. Iftikhar, F. Aziz and M. Asif, Computational Investigation of MnNiCuSb alloy for Structural, Elasto-mechanical and vibrational properties, *Modern Physics Letters B*, 33(23), 2019, 1950276
- A. Iqbal, K. Humayun, S. Maqsood, S. Jawaid, A. Ahmad, A-Ur- Rahman, and BA. Bacha Quantum photodetachment of hydrogen negative ion in a harmonic potential subjected to static electric field, *Chinese Physics B*, 28, 2019, 023201
- N. Khan, BA. Bacha, A. Iqbal, A- Ur- Rahman, and A. Ahmad Reply to “Comment on ‘Gain-assisted superluminal propagation and rotatory drag of photon and surface Plasmon polaritons’”, *Physical Review A*, 99, 2019, 057802
- N-UL-Arifeen and A. Ahmad, First Principles Study of thermodynamic properties of Cd-substituted Zn Chalcogenides by employing quasi harmonic Debye model, *Material Research Express*, 6, 2019, 116303
- SK. Abbas, A. Akbar, S. Atiq, M. Saleem, M. Iftikhar, HM. Rafiq, S. Naseem and MS. Anwar Optimization of DyFe nanostructures using E-beam lithography for magneto-optical applications, *Journal of Magnetism and Magnetic Materials*, 469, 2019, 196
- SN. Khan, ANS. Saqib, M. Arshad, S. Atiq and S. Naseem, Structurally modulated dielectric relaxation in rhombohedral Cr_2O_3 mediated by Mn addition, *Journal of Materials Science-Material in Electronics* 30, 2019, 3378
- S. Atiq, M. Faizan, AH. Khan, A. Mahmood, SM. Ramay and S. Naseem, Co-existence of magnetic and electric ferroic orders in La-substituted BiFeO_3 , *Results in Physics*, 12, 2019, 1269
- A. Khalid, GM. Mustafa, S. Naseem and S. Atiq, Sm-mediated dielectric characteristics and tunable magneto-electric coefficient of $0.5\text{Bi}_{1-x}\text{Sm}_x\text{Fe}_{0.95}\text{Mn}_{0.05}\text{O}_3$ - 0.5PbTiO_3 composites, *Ceramics International* 45, 2019, 7690
- S. Ishaq, F. Kanwal, S. Atiq, M. Moussa and D. Losic, Synthesis of three phase graphene /titania/Polydimethylsiloxane nanocomposite films and revealing their dielectric and impedance properties, *Ceramics International* 45, 2019, 8713
- S. Atiq, GM. Mustafa, S. Naseem, SK. Abbas, SM. Ramay and A. Mahmood, Magneto-dielectric and ferroelectric tunability of multifunctional Ce-substituted neodymium zirconate pyrochlores, *Materials Letters*, 243, 2019, 21
- N. Akhtar, HM. Rafique, S. Atiq, S. Aslam, A. Razaq and M. Saleem, Structural, morphological and dielectric traits of $\text{Zr}_{1-x}\text{Ca}_x\text{TiO}_4$ ($x = 0, 0.05, 0.10, 0.15$ and 0.2) ceramics, *Bulletin of Materials Science* 42, 2019, 58
- S. Atiq, A. Fatima, M. Khalid, A. Hassan, GM. Mustafa, SA. Siddiqi and S. Naseem, Multifunctionality of magnetoelectrically coupled Ni/Cr co-doped BiFeO_3 multiferroics, *Journal of Alloys Compounds* 789, 2019, 400
- M. Haris, S. Atiq, SK. Abbas and S. Naseem, Low-frequency thermally-assisted electrical resonance in $\text{V}_2\text{O}_5/\text{C}$ composites, *Materials Science and Engineering-B*, 243, 2019, 19
- A. Batool, F. Kanwal, S. Asim, S. Riaz, S. Atiq, S. Naseem, MW. Mushtaq, and Z. Ullah Thermally Stable Polypyrrole/Hematite Composites with Tunable Dielectric and Magnetic Properties, *Polymer Science Series A* 61, 2019, 112



- SK. Abbas, S. Atiq, M. Saleem, S. Riaz, S. Naseem and MS. Anwar Fluoride ion assisted growth of hierarchical flowerlike nanostructures of Co/Ni ferrites and their magnetoresistive response, RSC Advances, 9, 2019, 17581
- MU. Farooq, B. Zou, A. Ghaffar, MS. Kiani, S. Atiq, S. Bashir and S. Naseem, The contribution of Cr(III)-doping on the modulation of magnetic and luminescence properties of GaN nanowires, Superlattices and Microstructures 132, 2019, 106159
- ZN. Kayani, A. Shahzadi, S. Riaz and S. Naseem, Preparation and characterization of dip coated cobalt oxide thin films, Materials Research Innovations, 23, 2019, 253
- H. Shakeel, HM. Khan, I. Ali, K. Ali, MA. Iqbal, I. Sadiq, G. Murtaza, MU. Islam, MN. Ashiq and M. Nadeem, Structural, magnetic and electrical study of rare earth doped Y- type hexaferrites, Journal of Materials Science: Materials in Electronics, 30, 2019, 670
- **Conferences, Seminars and Workshops, etc.**
International Conference on Solid State Physics 2019

RESEARCH COLLABORATION

- **Indigenous**
 - University of Engineering & Technology, Lahore
 - Lahore College for Women University, Lahore
 - Islamia University Bahawalpur
 - Bahauddin Zakaria University, Multan
 - Govt. College University, Lahore
 - Forman Christian College, Lahore
 - National Centre of Physics, Islamabad
- **Foreign**
 - School of Chemistry, University of Manchester, UK
 - Chinese Academy of Sciences Beijing, China
 - Laser Centre, University Technology Malaysia
 - Institute of Electronics, York University, York, UK

CENTRE FOR HIGH ENERGY PHYSICS

- **Research Publications**

Sr. No.	Name of Faculty Member / Co-authors	Title of Research Paper	Name of Publishing Journal
1	Prof. Dr. Bilal Masud Dr. Faisal Akram	$\rho J/\psi$ scattering in an improved many-body potential	The European Physical Journal
2	Prof. Dr. Maqsood Ahmad	Band gap modulation effect on electronic and optical properties in PbTiO ₃ under stress: a DFT study	The European Physical Journal Applied Physics



3	Prof. Dr. Maqsood Ahmad Prof. Dr. Rashid Ahmed	Investigations of novel polymorphs of ZnO for optoelectronic applications (March 2020)	Optik- International Journal for Light and Electron Optics
4	Prof. Dr. Maqsood Ahmad Prof. Dr. Rashid Ahmed	First-principles investigations of electronic structures and optical spectra of wurtzite and sphalerite types of ZnO _{1-x} S _x (x=0, 0.25, 0.50, 0.75 & 1) alloys (28 July 2020)	Materials Science in Semiconductor Processing
5	Prof. Dr. Rashid Ahmed Prof. Dr. Maqsood Ahmed	Investigations of novel polymorphs of ZnO for optoelectronic applications, Optik - International Journal for Light and Electron Optics 206 (2020) 164285.	Optik - International Journal for Light and Electron Optics
6	Prof. Dr. Rashid Ahmed Dr. Sohail Afzal Tahir	Exploring the potential of lead-chalcogenide monolayers for room-temperature thermoelectric applications, Ceramics International 47(3) (2021) 3380.	Ceramics International
7	Prof. Dr. Rashid Ahmed	Ab initio calculations of optoelectronic properties of antimony sulfide nano-thin film for solar cell applications Volume 15, December 2019, 102762	Results in Physics
8	Prof. Dr. Rashid Ahmed	Optoelectronic properties of new direct bandgap polymorphs of single-layered Germanium sulfide	Ceramics International
9	Prof. Dr. Rashid Ahmed	Structural, elasto-mechanical and phonon-related properties of MnCrP: A DFT Study,	International Journal of Modern Physics B
10	Prof. Dr. Rashid Ahmed	Optoelectronic properties of three PbSe polymorphs, Ceramics International 46(14) (2020) 22181	Ceramics International
11	Prof. Dr. Rashid Ahmed Dr. Sohail Afzal Tahir	A comprehensive first-principles computational study on the physical properties of lutetium aluminum perovskite LuAlO ₃ ,	Materials Chemistry and Physics
12	Prof. Dr. Rashid Ahmed	Optoelectronic properties of PbSe monolayers from first-principles,	Applied Surface Science
13	Prof. Dr. Rashid Ahmed	Insight view of mechanical, electronic and thermodynamic properties of the novel intermetallic REPt ₄ In ₄ (RE = Eu, Gd, Tb, Dy, Ho) compounds via ab initio calculations,	Bull. Mater. Sci.



14	Prof. Dr. Rashid Ahmed	p-type Cu ₃ BiS ₃ thin films for solar cell absorber layer via one stage thermal evaporation	Applied Surface Science,
15	Prof. Dr. Rashid Ahmed	Advances in nanostructured homojunction solar cells and photovoltaic materials,	Materials Science in Semiconductor Processing
16	Prof. Dr. Rashid Ahmed	Predictions on structural, electronic, optical and thermal properties of lithium niobate via first-principle computations,	Philosophical Magazine
17	Prof. Dr. Rashid Ahmed	Diffusional and conformational behaviour of hexadecane-1,16-diol and hexadecane enclathration in three-dimensional nanoporous urea inclusion compound model systems via molecular dynamics simulation,	Computational Materials Science
18	Prof. Dr. Rashid Ahmed	First-principles computations of YxGa _{1-x} As-ternary alloys: a study, on structural, electronic, optical and elastic properties,	Bulletin of Material Science
19	Prof. Dr. Rashid Ahmed	First-principles study of electronic and optical properties of antimony sulphide thin film,	Optik - International Journal for Light and Electron Optics
20	Dr. Faisal Akram Dr. Bushra Shafaq	The effect of the earth matter on three neutrino oscillations and sensitivity to CP phase parameter	The European Physical Journal Plus
21	Dr. Qadeer Afzal Malik Dr. Talab Hussain Dr. Abrar Ahmad Zafar	Improved model-independent determination of the strong-phase difference between D^0 and $\bar{D}^0 \rightarrow K^0 S, LK + K^-$ decays M. Ablikim <i>et al.</i> (BESIII Collaboration), 052008 (2020) - Published 30 September 2020	Phys. Rev. D 102
22	Dr. Qadeer Afzal Malik Dr. Talab Hussain Dr. Abrar Ahmad Zafar	Measurements of the absolute branching fractions of $D^0(+) \rightarrow K^- K \pi \pi$ decays M. Ablikim <i>et al.</i> (BESIII Collaboration) 052006 (2020) - Published 25 September 2020	Phys. Rev. D 102,
23	Dr. Qadeer Afzal Malik Dr. Talab Hussain Dr. Abrar Ahmad Zafar	Search for intermediate resonances and dark gauge bosons in $J/\psi \rightarrow \gamma \pi^0 \eta'$ M. Ablikim <i>et al.</i> (BESIII Collaboration) 052005 (2020) - Published 17 September 2020	Phys. Rev. D 102



24	Dr. Qadeer Afzal Malik Dr. Talab Hussain Dr. Abrar Ahmad Zafar	Measurement of singly Cabibbo-suppressed decays $D \rightarrow \omega \pi \pi$ M. Ablikim <i>et al.</i> (BESIII Collaboration)052003 (2020) - Published 9 September 2020	Phys. Rev. D 102,
25	Dr. Qadeer Afzal Malik Dr. Talab Hussain Dr. Abrar Ahmad Zafar	Inclusive charged and neutral particle multiplicity distributions in $\chi_c J$ and J/ψ decays M. Ablikim (麦迪娜) <i>et al.</i> (BESIII Collaboration)052001 (2020) - Published 3 September 2020	Phys. Rev. D 102,
26	Dr. Qadeer Afzal Malik Dr. Talab Hussain Dr. Abrar Ahmad Zafar	Observation of the $Y(4220)$ and $Y(4390)$ in the process $e^+e^- \rightarrow \eta J/\psi$ M. Ablikim <i>et al.</i> (BESIII Collaboration)031101(R) (2020) - Published 24 August 2020	Phys. Rev. D 102,
27	Dr. Qadeer Afzal Malik Dr. Talab Hussain Dr. Abrar Ahmad Zafar	$K^*(892)^0$ and $\phi(1020)$ production at midrapidity in pp collisions at $\sqrt{s} = 8$ TeV S. Acharya <i>et al.</i> (ALICE Collaboration), 024912 (2020) - Published 17 August 2020	Phys. Rev. C 102
28	Dr. Qadeer Afzal Malik Dr. Talab Hussain Dr. Abrar Ahmad Zafar	Σ^+ and $\bar{\Sigma}^-$ Polarization in the J/ψ and $\psi(3686)$ Decays M. Ablikim <i>et al.</i> (BESIII Collaboration)052004 (2020) - Published 31 July 2020	Phys. Rev. Lett. 125,
29	Dr. Qadeer Afzal Malik Dr. Talab Hussain Dr. Abrar Ahmad Zafar	Study of the process $e^+e^- \rightarrow \pi^0 \pi^0 J/\psi$ and neutral charmoniumlike state $Z_c(3900)^0$ M. Ablikim <i>et al.</i> (BESIII Collaboration)012009 (2020) - Published 23 July 2020	Phys. Rev. D 102,
30	Dr. Qadeer Afzal Malik Dr. Talab Hussain Dr. Abrar Ahmad Zafar	Observation of a structure in $e^+e^- \rightarrow \phi \eta'$ at \sqrt{s} from 2.05 to 3.08 GeV M. Ablikim <i>et al.</i> (BESIII Collaboration)012008 (2020) - Published 21 July 2020	Phys. Rev. D 102,



31	Dr. Qadeer Afzal Malik Dr. Talab Hussain Dr. Abrar Ahmad Zafar	Measurement of the Born cross sections for $e+e\rightarrow D+sD_s1(2460)\rightarrow c.c.$ and $e+e\rightarrow D^*+sD_s1(2460)\rightarrow c.c.$ M. Ablikim <i>et al.</i> (BESIII Collaboration)112008 (2020) - Published 24 June 2020	Phys. Rev. D 101,
32	Dr. Qadeer Afzal Malik Dr. Talab Hussain Dr. Abrar Ahmad Zafar	Measurements of Absolute Branching Fractions of Fourteen Exclusive Hadronic D Decays to η M. Ablikim <i>et al.</i> (BESIII Collaboration)241803 (2020) - Published 19 June 2020	Phys. Rev. Lett. 124,
33	Dr. Qadeer Afzal Malik Dr. Talab Hussain Dr. Abrar Ahmad Zafar	Study of Open-Charm Decays and Radiative Transitions of the $X(3872)$ M. Ablikim <i>et al.</i> (BESIII Collaboration)242001 (2020) - Published 19 June 2020	Phys. Rev. Lett. 124,
34	Dr. Qadeer Afzal Malik Dr. Talab Hussain Dr. Abrar Ahmad Zafar	Search for the decay $J/\psi\rightarrow\gamma+\text{invisible}$ M. Ablikim <i>et al.</i> (BESIII Collaboration)112005 (2020) - Published 16 June 2020	Phys. Rev. D 101,
35	Dr. Qadeer Afzal Malik Dr. Talab Hussain Dr. Abrar Ahmad Zafar	Determination of Strong-Phase Parameters in $D\rightarrow K0S, L\pi+\pi-$ M. Ablikim <i>et al.</i> (BESIII Collaboration)241802 (2020) - Published 15 June 2020	Phys. Rev. Lett. 124,
36	Dr. Qadeer Afzal Malik Dr. Talab Hussain Dr. Abrar Ahmad Zafar	Model-independent determination of the relative strong-phase difference between $D0$ and $\bar{D}0\rightarrow K0S, L\pi+\pi-$ and its impact on the measurement of the CKM angle γ/ϕ_3 M. Ablikim <i>et al.</i> (BESIII Collaboration)112002 (2020) - Published 15 June 2020	Phys. Rev. D 101,
37	Dr. Qadeer Afzal Malik Dr. Talab Hussain Dr. Abrar Ahmad Zafar	First Observation of $D^+\rightarrow\eta\mu+\nu\mu$ and Measurement of Its Decay Dynamics M. Ablikim <i>et al.</i> (BESIII Collaboration)231801 (2020) - Published 9 June 2020	Phys. Rev. Lett. 124,
38	Dr. Qadeer Afzal Malik Dr. Talab Hussain Dr. Abrar Ahmad Zafar	First measurements of $\chi_{cJ}\rightarrow\Sigma^-\bar{\Sigma}^+(J=0,1,2)$ decays M. Ablikim <i>et al.</i> (BESIII Collaboration)092002 (2020) - Published 5 May 2020	Phys. Rev. D 101,



39	Dr. Qadeer Afzal Malik Dr. Talab Hussain Dr. Abrar Ahmad Zafar	Observation of the semimuonic decay $D^+ \rightarrow \omega \mu^+ \nu_\mu$ M. Ablikim <i>et al.</i> (BESIII Collaboration)072005 (2020) - Published 20 April 2020	Phys. Rev. D 101,
40	Dr. Qadeer Afzal Malik Dr. Talab Hussain Dr. Abrar Ahmad Zafar	Observation of $D^+ \rightarrow \eta \eta \pi^+$ and improved measurement of $D^0(+) \rightarrow \eta \pi^+ \pi^- (0)$ M. Ablikim <i>et al.</i> (BESIII Collaboration)052009 (2020) - Published 24 March 2020	Phys. Rev. D 101,
41	Dr. Qadeer Afzal Malik Dr. Talab Hussain Dr. Abrar Ahmad Zafar	Observation of a Resonant Structure in $e^+e^- \rightarrow K^+K^- \pi^0 \pi^0$ M. Ablikim <i>et al.</i> (BESIII Collaboration)112001 (2020) - Published 19 March 2020	Phys. Rev. Lett. 124,
42	Dr. Qadeer Afzal Malik Dr. Talab Hussain Dr. Abrar Ahmad Zafar	Scattering Studies with Low-Energy Kaon-Proton Femtoscopy in Proton-Proton Collisions at the LHC S. Acharya <i>et al.</i> (A Large Ion Collider Experiment Collaboration)092301 (2020) - Published 6 March 2020	Phys. Rev. Lett. 124,
43	Dr. Qadeer Afzal Malik Dr. Talab Hussain Dr. Abrar Ahmad Zafar	Partial wave analysis of $\psi(3686) \rightarrow K^+K^- \eta$ M. Ablikim <i>et al.</i> (BESIII Collaboration)032008 (2020) - Published 28 February 2020	Phys. Rev. D 101,
44	Dr. Qadeer Afzal Malik Dr. Talab Hussain Dr. Abrar Ahmad Zafar	Search for baryon and lepton number violating decays $D^+ \rightarrow \bar{\Lambda}(\bar{\Sigma}^0)e^+$ and $D^+ \rightarrow \Lambda(\Sigma^0)e^+$ M. Ablikim <i>et al.</i> (BESIII Collaboration)031102(R) (2020) - Published 13 February 2020	Phys. Rev. D 101,
45	Dr. Qadeer Afzal Malik Dr. Talab Hussain Dr. Abrar Ahmad Zafar	Search for the rare decay $\eta' \rightarrow \pi^0 \pi^0 \pi^0 \pi^0$ at BESIII M. Ablikim <i>et al.</i> (BESIII Collaboration)032001 (2020) - Published 5 February 2020	Phys. Rev. D 101,
46	Dr. Qadeer Afzal Malik Dr. Talab Hussain Dr. Abrar Ahmad Zafar	Measurement of Proton Electromagnetic Form Factors in $e^+e^- \rightarrow p^+ \bar{p}$ in the Energy Region 2.00–3.08 GeV M. Ablikim <i>et al.</i> (BESIII Collaboration), 042001 (2020) - Published 28 January 2020	Phys. Rev. Lett. 124



47	Dr. Qadeer Afzal Malik Dr. Talab Hussain Dr. Abrar Ahmad Zafar	Measurement of the Cross Section for $e^+e^- \rightarrow \Xi^- \bar{\Xi}^+$ and Observation of an Excited Ξ Baryon M. Ablikim <i>et al.</i> (BESIII Collaboration), 032002 (2020) - Published 24 January 2020	Phys. Rev. Lett. 124
48	Dr. Qadeer Afzal Malik Dr. Talab Hussain Dr. Abrar Ahmad Zafar	Observation of the decays $\chi_{cJ} \rightarrow \phi \phi \eta$ M. Ablikim <i>et al.</i> (BESIII Collaboration) 012012 (2020) - Published 24 January 2020	Phys. Rev. D 101,
49	Dr. Qadeer Afzal Malik Dr. Talab Hussain Dr. Abrar Ahmad Zafar	Cross section measurement of $e^+e^- \rightarrow \eta' J/\psi$ from $\sqrt{s} = 4.178$ to 4.600 GeV M. Ablikim <i>et al.</i> (BESIII Collaboration) 012008 (2020) - Published 21 January 2020	Phys. Rev. D 101,
50	Dr. Qadeer Afzal Malik Dr. Talab Hussain Dr. Abrar Ahmad Zafar	Measurement of $J/\psi \rightarrow \Xi(1530)^- \bar{\Xi}^+$ and evidence for the radiative decay $\Xi(1530)^- \rightarrow \gamma \Xi^-$ M. Ablikim <i>et al.</i> (BESIII Collaboration), 012004 (2020) - Published 8 January 2020	Phys. Rev. D 101
51	Dr. Qadeer Afzal Malik Dr. Talab Hussain Dr. Abrar Ahmad Zafar	Study of $e^+e^- \rightarrow \pi^+\pi^-\pi^0 \eta_c$ and evidence for $Z_c(3900)^\pm$ decaying into $\rho^\pm \eta_c$ M. Ablikim <i>et al.</i> (BESIII Collaboration) 111102(R) (2019) - Published 24 December 2019	Phys. Rev. D 100,
52	Dr. Qadeer Afzal Malik Dr. Talab Hussain Dr. Abrar Ahmad Zafar	Search for the decay $D^+ s \rightarrow p^- p^+ e^+ \nu_e$ M. Ablikim <i>et al.</i> (BESIII Collaboration) 112008 (2019) - Published 24 December 2019	Phys. Rev. D 100,
53	Dr. Qadeer Afzal Malik Dr. Talab Hussain Dr. Abrar Ahmad Zafar	Observation of the Semileptonic D^+ Decay into the $\bar{K}^*(1270)^0$ Axial-Vector Meson M. Ablikim <i>et al.</i> (BESIII Collaboration) 231801 (2019) - Published 2 December 2019	Phys. Rev. Lett. 123,
54	Dr. Qadeer Afzal Malik Dr. Talab Hussain Dr. Abrar Ahmad Zafar	Observation of the Leptonic Decay $D^+ \rightarrow \tau^+ \nu_\tau$ M. Ablikim <i>et al.</i> (BESIII Collaboration) 211802 (2019) - Published 22 November 2019	Phys. Rev. Lett. 123,



55	Dr. Qadeer Afzal Malik Dr. Talab Hussain Dr. Abrar Ahmad Zafar	First observation of the decay $\chi_{cJ} \rightarrow \Sigma^+ \bar{p} K^0 S + c.c. (J=0,1,2)$ M. Ablikim <i>et al.</i> (BESIII Collaboration)092006 (2019) - Published 18 November 2019	Phys. Rev. D 100,
56	Dr. Qadeer Afzal Malik Dr. Talab Hussain Dr. Abrar Ahmad Zafar	Measurement of charged jet cross section in pp collisions at $\sqrt{s}=5.02$ TeV S. Acharya <i>et al.</i> (A Large Ion Collider Experiment Collaboration)092004 (2019) - Published 13 November 2019	Phys. Rev. D 100,
57	Dr. Qadeer Afzal Malik Dr. Talab Hussain Dr. Abrar Ahmad Zafar	Measurement of branching fractions of $\psi(3686) \rightarrow \phi \eta'$, $\phi f_1(1285)$ and $\phi \eta(1405)$ M. Ablikim <i>et al.</i> (BESIII Collaboration)092003 (2019) - Published 11 November 2019	Phys. Rev. D 100,
58	Dr. Qadeer Afzal Malik Dr. Talab Hussain Dr. Abrar Ahmad Zafar	Measurement of $Y(1S)$ Elliptic Flow at Forward Rapidity in Pb-Pb Collisions at $\sqrt{s_{NN}}=5.02$ TeV S. Acharya <i>et al.</i> (A Large Ion Collider Experiment Collaboration)192301 (2019) - Published 6 November 2019	Phys. Rev. Lett. 123,
59	Dr. Qadeer Afzal Malik Dr. Talab Hussain Dr. Abrar Ahmad Zafar	Amplitude analysis of $D^+ \rightarrow K^0 S \pi^+ \pi^-$ M. Ablikim <i>et al.</i> (BESIII Collaboration) 100, 072008 (2019) - Published 18 October 2019	Phys. Rev. D
60	Dr. Qadeer Afzal Malik Dr. Talab Hussain Dr. Abrar Ahmad Zafar	Improved measurements of the absolute branching fractions of the inclusive decays $D^+(0) \rightarrow \phi X$ M. Ablikim <i>et al.</i> (BESIII Collaboration)072006 (2019) - Published 15 October 2019	Phys. Rev. D 100,
61	Dr. Qadeer Afzal Malik Dr. Talab Hussain Dr. Abrar Ahmad Zafar	Measurements of weak decay asymmetries of $\Lambda^+ c \rightarrow p K^0 S$, $\Lambda \pi^+$, $\Sigma^+ \pi^0$, and $\Sigma^0 \pi^+$ M. Ablikim <i>et al.</i> (BESIII Collaboration)072004 (2019) - Published 14 October 2019	Phys. Rev. D 100,



62	Dr. Qadeer Afzal Malik Dr. Talab Hussain Dr. Abrar Ahmad Zafar	Two-particle differential transverse momentum and number density correlations in p-Pb collisions at 5.02 TeV and Pb-Pb collisions at 2.76 TeV at the CERN Large Hadron Collider S. Acharya <i>et al.</i> (ALICE Collaboration)044903 (2019) - Published 10 October 2019	Phys. Rev. C 100,
63	Dr. Qadeer Afzal Malik Dr. Talab Hussain Dr. Abrar Ahmad Zafar	Investigations of Anisotropic Flow Using Multiparticle Azimuthal Correlations in pp, p-Pb, Xe-Xe, and Pb-Pb Collisions at the LHC S. Acharya <i>et al.</i> (A Large Ion Collider Experiment Collaboration)142301 (2019) - Published 2 October 2019	Phys. Rev. Lett. 123,
64	Dr. Qadeer Afzal Malik Dr. Bushra Kanwal	Repercussion of pressure on thermodynamic, optoelectronic, thermoelectric and magneto-elastic rectitude of cubic LaFeCO ₃ : Quantum DFT Perspective.	Journal of Alloys and Compounds.
65	Dr. Irfan Mahmood	Density functional theory study of electronic, optical and transport properties of magnesium based MgY ₂ Z ₄ (Z = S and Se) spinels	Current Applied Physics
66	Dr. Irfan Mahmood	First-principles calculation to investigate half metallic ferromagnetism and thermoelectric properties of Ca _{0.75} Ti _{0.25} X (X = S, Se) alloys	Chemical Physics
67	Dr. Bushra Kanwal	Dosimetry modeling of focused kV x-ray radiotherapy for wet age-related macular degeneration	The international journal of medical physics research and practice.

RESEARCH COLLABORATION

○ Foreign Linkages

- Centre for High Energy Physics, University of the Punjab, is member of Beijing Spectrometer III (BESIII) Collaboration. CHEP faculty members: Dr. Talab Hussain (Group Leader), Dr. Abrar Ahmed Zafar and Dr. Qadeer Afzal Malik continued the collaborative research activities in this regard.
- Dr. Bilal Masud and Dr. Faisal Akram continued collaborative research with the following researchers abroad:
 - Dr. Eric Swanson, Pittsburg University, USA.
 - Dr. Adnan Bashir, Universidad Michoacana, Morelia, Mexico.
 - Dr. Arfin Lodhi, Research Professor, Texas Tech University, Physics Department, USA



- Dr. Irfan Mahmood continued collaborative research with the following researchers:
 - Dr. Vladimir Roubtsov, Dr. Mattia Coffaso, Department of Mathematics, 1-LAREMA, CNRS, France
 - Prof. Vladimir Retakh, Department of Physics, Rutgers University, USA

CENTRE FOR INTEGRATED MOUNTAIN RESEARCH

○ **Research and Development - An Overview**

The Centre has been established to address the demands of integrated sustainable research and development of mountainous areas of Pakistan. To meet these challenges, the framework of CIMR is organized into five thematic research and development divisions:

- Mountain Resource Division (MRD)
- Resource Development Division (RDD)
- Resource Management Division (RMD)
- Project Planning Division (PPD)
- Documentation Division (DD)

○ **Projects**

Research Projects funded by University of the Punjab

- Climate extremes and its implications on hydrological extremes in Upper Indus Basin, Pakistan. Funded by University of the Punjab P.I: Prof. Dr. Munawar Sabir
- Amplification of Environmental appraisal coordination at General Hospital, Lahore and their implications for evolution in Management Review. Funded by University of the Punjab P.I: Ms. Bushra Zia Khan

M.Sc/M.Phil/ Ph.D Research Projects

- Appraisal of physical, hydro-climatic and socio-economic characteristics based on geo-spatial techniques of Soan river basin.
- Appraisal of physical, hydro-climatic and socio-economic characteristics based on geo-spatial techniques of Gilgit river basin.
- Appraisal of watershed using integrated approach of Remote Sensing and geographic Information system of Swat river basin and socioeconomic infrastructures of Swat.
- Appraisal of physical, hydro-climatic and socio-economic characteristics based on geo-spatial techniques of Haro river basin.
- Estimation of watershed characteristics of Neelum river basin using GIS and remote sensing technique.
- Appraisal of physical, hydro-climatic and socio-economic characteristics based on geo-spatial techniques of Poonch river basin.
- Appraisal of physical, hydro-climatic and socio-economic characteristics based on geo-spatial techniques of Kabul river basin.
- Appraisal of physical, hydro-climatic and socio-economic characteristics based on geo-spatial techniques of Siran river basin.



- Estimation of watershed characteristics of Kunhar river basin using integrated approach of Remote Sensing and Geographic Information System.
 - Computing the characteristics of Hunza river basin using integrated approach of Remote Sensing and Geographic Information System.
 - Estimation of Geomorphological and hydro-climatic characteristics of Shigar watershed using integrated approach of Remote Sensing and Geographic Information System.
 - Computing the characteristics of Pajkora river basin using integrated approach of Remote Sensing and Geographic Information System.
 - Appraisal of characteristics of Chitral watershed by application of Remote Sensing and Geographic Information System.
 - Estimation of geomorphological, hydro-climatic and socio-economic characteristics using integrated approach of Remote Sensing and Geographic Information System of Shyok river basin.
 - Estimation of Geomorphological and hydro-climatic characteristics of Astore watershed using integrated approach of Remote Sensing and Geographic Information System.
- **Publications**
- Yaseen, M.; Waseem, M.; Latif, Y.; Azam, M.I.; Ahmad, I.; Abbas, S.; Sarwar, M.K.; Nabi, G. (2020). "Statistical Downscaling and Hydrological Modeling-Based Runoff Simulation in Trans-Boundary Mangla Watershed Pakistan". *Water*, 12(11).
 - Yaseen, M., Ahmad, I., Guo, J., Azam, M.I., and Latif, Y., (2020). "Spatiotemporal variability in the hydro-meteorological time-series over upper Indus river basin of Pakistan" *Advances in Meteorology*. <https://doi.org/10.1155/2020/5852760>
 - Azam, M.I., Guo, J., Shi, X., Yaseen, M., Tayyab, M., Hussain, Z., Dai, L., Bashir, H. and Tam, N.T.M., (2020). Spatial Climatic Variability and Impact of El Niño–Southern Oscillation on Extreme Precipitation of River Catchment. *Environmental Engineering Science*. <https://doi.org/10.1089/ees.2019.0440>
 - Azam, M.I., Guo, J., Shi, X., Yaseen, M., Mohammad, A., Lu, H., Tayyab, M., Hussain, Z., Dai, L., (2020). Evaluation of Statistical Model for Future Precipitation and Temperature in Drainage Area of Jhelum River, Pakistan., *Pakistan Journal of Agricultural Sciences*. 57(3), 605-613. DOI: 10.21162/PAKJAS/20.7586
 - Shah, S.I.H., Nawaz, R., Ahmad, S., Arshad, M., Nasir, R., Yaseen, M., Javied, S., Irshad, M.A., (2020): Sustainability assessment of modern urban transport and its role in the reduction of greenhouse gas emissions: A case study of Metro Bus System (MBS), Lahore. *Kuwait Journal of Science*. 47 (2) pp. 67-81.
 - Abbas, S., Kousar, S., Yaseen, M., Mayo, Z. A., Zainab, M., Mahmood, M. J., & Raza, H. (2020). Impact assessment of socioeconomic factors on dimensions of environmental degradation in Pakistan. *SN Applied Sciences*, 2(3), 1-16.
 - Abbas, S., Shirazi, S. A., Hussain, M. S., Yaseen, M., Shakarullah, K., Wahla, S. S., Khurshid, M. (2020). Impact of Climate Change on Forest Cover: Implications for Carbon Stock Assessment and Sustainable Development in HKH Region-Pakistan. *Journal of Pakistan Vision*, 21(1), 66-81.



- Shirazi, S. A., Abbas, S., Shakarullah, K., Yaseen, M., Mazhar, N., Wahla, S. S., & Khurshid, M (2020). Trends and variability of temperature time series over the kanshi catchment in the Potohar region of Punjab-Pakistan. Pakistan Journal of Science, 72(3), 241-248
- Latif, Y., Yaoming, M., Yaseen, M., Sher M., and Wazir, M.A.; (2019). "Spatial analysis of temperature time series over the Upper Indus Basin (UIB) Pakistan". Theoretical and Applied Climatology, <https://doi.org/10.1007/s00704-019-02993-8>.
- Ijaz Ahmad, I., Ahmed, S.M., Mahmood, S., Afzal, M., Yaseen, M., Saleem, M., and Rizwan, M.; (2019): "To develop a crop water allocation model for optimal water allocation in the warabandi irrigation system." Arabian Journal for Science and Engineering. Volume 44, Issue 10, pp 8585–8598.
- **Conferences, Seminars and Workshops**
 - *National Conferences/Workshops*
 - Three days training course on "Hydrological Monitoring Technology for ASEAN" sponsored by Changjiang Water Resources Commission of the Ministry of Water Resources of the People's Republic of China, November 17-19, 2020.
 - Organized and celebrated "International Mountain Day" on December 11, 2019.

COLLEGE OF EARTH & ENVIRONMENTAL SCIENCES

- **Research & Development Overview**

Faculty members of the CEES are actively engaged in the Research and Development activities and working on various research projects funded by the University of the Punjab, Lahore during the academic session 2019-2020 as detailed below:
- **Projects: Completed**

Sr. No.	Faculty Member as Principal Investigator	Title of Project	Grant / Funding (Rs.)	Funded by
1.	Prof. Dr. Sajid Rashid Ahmad	Air Emissions through Modifications and Improve Efficiency in Firing of Brick Kiln Units	37,97,944/-	HEC
		Geospatial Applications for Determination of Physical Environmental Attributes of Cement Industries in Salt Range Area.	250,000/-	P.U., Lahore
2.	Dr. Irfan Ahmed Shaikh Professor	Range of Textile Dyeing and Bleaching Waste Water using Economical and Robust methods	150,000/-	P.U., Lahore
3.	Dr. Nadia Jamil Professor	Chromium (Cr) Removal from Wastewater through Biosorption	200,000/-	P.U., Lahore
4.	Dr. Abdul Qadir Associate Professor	Assessment of Microplastics (MPs) in Indoor Floor Dust from Urban Residential Areas	200,000/-	P.U., Lahore



Sr. No.	Faculty Member as Principal Investigator	Title of Project	Grant / Funding (Rs.)	Funded by
5.	Dr. Yumna Sadeef Assistant Professor	Exploration of Aflatoxin and Ochratoxin-A in Grown Varieties of Maize under Seasonal Climatic conditions and Their Control Strategies.	150,000/-	P.U., Lahore
6.	Mr. Azhar Ali Assistant Professor	Evaluation of health, Safety and Environmental Performance and Continual Improvement of Chemical Industry: A Pilot Study of Leather Chemical Production.	150,000/-	P.U., Lahore
7.	Mr. Muhammad Dastgeer Lecturer	Ecotourism Potential in the Scenario of Sustainable Development at Khushab, Pakistan	125,000/-	P.U., Lahore

Newly launched

Faculty members of the CEES have submitted the research proposals to the Punjab University and the Higher Education Commission (HEC), Islamabad for allocation of Research grants.

Sr. No.	Faculty Member as Principal Investigator	Title of Project	Grant / funding (Rs.)	Funded by
1.	Dr. Abdul Qadir Associate Professor	Surveillance and Effects of Plastic Pollution on Ecological Integrity of River Ravi and Chenab, Pakistan	113,76,777/-	Higher Education Commission

○ Research Publications

Sr. No.	Authors	Year	Title of Paper	Name of Publishing Journal	Vol. / No.	Page
1.	U. Saeed, K. Sherdil, U. Ashraf, G. Mohey-ud-Din, I. Younas, H.J. Butt and S.R. Ahmad.	2020	Identification of Potential Lockdown areas during COVID-19 Transmission in Punjab, Pakistan	Public Health	190	42-51
2.	Javaid, A., Yousaf, W., Ahmad, S.R., and Qadir, A.	2020	Application of Pollution Indices for the Assessment of Heavy Metals hazards in Soil using GIS Approach	Arabian Journal of Geosciences	13(22)	1-18
3.	Fahid, M. Arslan, M., Shabir, G., Younus, S., Yasmin, T., Rizwan, M. Siddique, K. Ahmad, S.R. Tahseen, R. Iqbal, S. Ali, S., Afzal, M.	2020	Phragmites australis in Combination with Hydrocarbons degrading bacteria is a suitable option for remediation of diesel-contaminated water in floating wetlands	Chemosphere	https://doi.org/10.1016/j.chemosphere.2019.124890	
4.	Ijaz, B., Tabinda, A.B., Ahmad, S.R., Khan, W.U., and Yasin, NA.	2020	Biogas Synthesis from Leather Industry Solid Waste in Pakistan	Polish Journal of Environmental Studies	29(5)	3621-3628



Sr. No.	Authors	Year	Title of Paper	Name of Publishing Journal	Vol. / No.	Page
5.	Yousaf, W., Awan, W.K. Kamran, M., Ahmad, S.R. Bodla, H.U., Riaz, M., Umar, M. and Chohan, K.	2020	A Paradigm of GIS and Remote Sensing for crop water deficit assessment in near real time to improve irrigation.	Agricultural Water Management	https://doi.org/10.1016/j.agwat.2020.106443	
6.	Akhtar, A.M. Qazi, W.A., Ahmad, S.R., Gilani, H., Mahmood, S.A. and Rasool, A.	2020	Integration of High-resolution optical and SAR satellite remote Sensing datasets for above ground biomass estimation in subtropical pine forest, Pakistan.	Environmental Monitoring and Assessment	192: 584: https://doi.org/10.1007/s10661-020-08546-1	
7.	Hassan, I, Javed, M.A., Asif, M. Luqman, M., Ahmad, S.R., Ahmad, A., Akhtar, S and Hussain, B.	2020	Weighted Overlay Based land Suitability analysis of Agriculture Land in Azad Jammu and Kashmir using GIS and AHP,	Pakistan Journal of Agricultural Sciences	57(06)	1509-1519
8.	Waled, M., Ahmad, S.R., Javed M.A. and Samiullah, S.	2020	Identification of irrigation potential areas, using multi-criteria analysis in Kyber District, Pakistan	Environmental Science and Pollution Research.	27	39832 - 39840
9.	Saleem, M.S., Ahmad, S.R., Rehman, S.U., and Javed M.A.	2020	Impact Assessment of urban Development Patterns on Land Surface Temperature by using Remote Sensing Techniques: A Case Study of Lahore, Faisalabad and Multan District.	Environmental Science and Pollution Research	27	39865 - 39878
10.	Rasheed, R., Javed, H., Rizwan, A., Sharif, F., Yasar, A., Tabinda, A.B., Ahmad, S.R. , Wang, Y. Su, Y.	2020	Life Cycle Assessment of a Cleaner Supercritical Coal-Fired Power Plant.	Journal of Cleaner Production	279.. https://doi.org/10.1016/j.jclepro.2020.123869	
11.	Khushi, S., Ahmad, S.R., Ashraf, A. and Imran, M.	2020	Spatially Analyzing Food Consumption in equalities using GIS with Disaggregated data from Punjab, Pakistan.	Food Security	12	1283-1298
12.	Ijaz, M., Ahmad, S.R., Akram, M., Thygerson, S.M., Nadeem, F.A. and Khan, W.U.	2020	Cross-Sectional Survey of Musculoskeletal Disorders in Workers Practicing Traditional Methods of Underground Coal Mining.	International Journal of Environmental Research and Public Health	17, x: doi: https://www.mdpi.com/1660-4601/17/7/2566	
13.	Ijaz, M., Akram, M., Ahmad, S.R., Mirza, K., Nadeem, F.A., and Thygerson, S.M.	2020	Risk Factors Associated with the Prevalence of Upper and Lower Back Pain in Male Underground Coal Miners in Punjab, Pakistan.	International Journal of Environmental Research and Public Health	doi: 10.3390/ijerph17114102	



Sr. No.	Authors	Year	Title of Paper	Name of Publishing Journal	Vol. / No.	Page
14.	Ashraf, S., Naveed, M., Afzal, M., Ashraf, S., Ahmad, S.R., Rehman, K., Zahir, Z.A. and Delgado, A.N.	2020	Evaluation of Toxicity on Ctenopharyngodon Idella Due to Tanner Effluent Remediated by constructed wetland Technology	Processes	doi: 103390/pr8050612	
15.	Fahid, M. Ali, S., Shabir, G., Ahmad, S.R., Yasmeen, T., Afzal, M., Arslan, M., Hussain, A., Hashem, A., Allah, E.F.A., Alyemeni, M.N. and Ahmad, P.	2020	Cyperus Laevigatus L. Enhances Diesel Oil Remediation in Synergism with Bacterial Inoculation in Floating Treatment Wetlands.	Sustainability,	12, 2353, doi: 10.3390/su12062353.	
16.	Javed, M.A. and Ahmad, S.R.	2020	A Decision Support System for Crop Water Requirement Estimation using Advanced Geospatial Techniques	Pakistan Journal of Agricultural Sciences	57(04)	981-991
17.	Ijaz, M., Ahmad, S.R., Akram, M., Khan, W.U., Nadeem, F.A	2020	Quantitative and Qualitative Assessment of Musculoskeletal Disorders and Socioeconomic Issues of Workers of Brick Industry in Pakistan.	International Journal of Industrial Ergonomics.	76: https://doi.org/10.1016/j.ergon.2020.102933 .	
18.	Khan, M., Chaudhry, M.N., Ahmad, S.R., Saif, S. and Mehmood, A.	2020	Performance of EIA Authority and Effectiveness of EIA System in Pakistan.	Environmental Impact Assessment Review	81: 106357	
19.	Fahid, M., Arslan, M., Shabir, G., Younus, S., Yasmeen, T., Rizwan, M., Siddique, K., Ahmad, S.R., Tahseen, R., Iqba, S., Ali, S. and Afzal, M.	2020	Phragmites Australis in Combination with hydrocarbons Degrading Bacteria is a suitable Optino for Remediation of Diesel-Contaminated Water in Floating Wetlands.	Chemosphere	240: 124890. https://doi.org/10.1016/j.chemosphere.2019.124890	
20.	Munir, B.A., Ahmad, S.R., and Hafeez, S.	2020	Integrated Hazard Modeling for Simulating Torrential Stream Response to Flash Flood Events.	International Journal of Geo-Information	9(01)	
21.	Ijaz, M., Akram, M., Ahmad, S.R., Khan, W., Thygersen, S. and Nadeem, F.	2020	Dust Generation and Respiratory Impacts of underground coal producing mines of Punjab, Pakistan.	Polish Journal of Environmental Studies	29(5):	3611-3620
22.	Tariq, A., Islam, S., Shaikh, I.A., Mushtaq, M.W. and Ishaq, S.	2020	Peformance Assessment of Alum as Coagulant for Degradation of Disperse dyes from aqueous medium	International of Journal of Environmental Analytical Chemistry	doi: 10.1080/0306739.2020.1806254	
23.	Ikram, K., Jamil, N., Salman, M., Shehrbano, M., & Siddique, A.	2020	Use of <i>Polyalthia longifolia</i> based alumina composites for the removal of reactive dyes from aqueous medium	Desalination and Water Treatment	185	364-373



Sr. No.	Authors	Year	Title of Paper	Name of Publishing Journal	Vol. / No.	Page
24.	Latif, M., Jamil, N., Zaheer, M., Hussain, N., Naeem, M. and Ahsan, N.	2020	Occurrence, Fate and Adverse Effects of Residual Levels of Preservatives and Active Whitening Agents from Wastewater of Personal Care Products Industries	Journal of Water Chemistry and Technology	42(6)	465-471
25.	Zahra, N., Jamil, N., Ahmad, S.R. Saeed, M.K., Munir, S., Kalim, I., Hamid, A., and Akram, H.	2020	Ochratoxin contamination of corn and applied detoxification approaches: a case study from Punjab, Pakistan	Pakistan Journal of Agriculture Science	57(5)	1345-1352
26.	Aslam, I., Mumtaz, M., Qadir, A., Jamil, N., Baqar, M., Mahmood, A., Ahmad, S.R., Zhang, G.	2020	Organochlorine pesticides (OCPs) in air-conditioner filter dust of indoor urban setting: Implication for health risk in a developing country.	Indoor Air	Doi:10.1111/ina.12772	
27.	Ullah, R., Asghar, R., Baqar, M., Mahmood, A., Alamdar, A., Qadir, A., Sohail, M., Schafer, R.B., Eqani, S.A.MAS	2020	Assessment of polychlorinated biphenyls (PCBs) in the Himalayan Riverine Network of Azad Jammu and Kashmir	Chemosphere,	240	12476-2
28.	Irfan, M., Qadir, A., Mumtaz, M. and Ahmad, S.R.	2020	An unintended challenge of microplastic pollution in the urban surface water system of Lahore, Pakistan	Environmental Science and Pollution Research	27(14)	16718-16730
29.	Naqvi, A., Qadir, A., Mahmood, A., Baqar, M., Aslam, I., Jamil, N., Mumtaz, M., Saeed, S. and Zhang, G.	2020	Screening of human health risk to infants associated with the polychlorinated biphenyl (PCB) levels in human milk from Punjab Province, Pakistan	Environmental Science and Pollution Research	27(7)	6837-6850
30.	Rafique, A., Irfan, M., Mumtaz, M., and Qadir, A.	2020	Spatial distribution of microplastics in soil with context to human activities: a case study from the urban center.	Environmental Monitoring and Assessment	192(11), 671. doi:10.1007/s10661-020-08641-3	
31.	Ali S.N., Baqar, M., Mumtaz, M., Ashraf, U., Anwar, M., Qadir, A., Ahmad, S.R., Nizami, A.S. & Jun, H.	2020	Organochlorine pesticides in the surrounding soils of POPs destruction facility: source fingerprinting, human health, and ecological risks assessment	Environmental Science and Pollution Research,	27(7)	7328-7340
32.	Rashid, G.M., Butt, A., Qadir, A., and Ali M.H.	2020	Avian assemblage along an urban gradient: diversity, abundance, and richness	Ornis Hungarica,	28(1)	49-64
33.	Kausar, F., Qadir, A., Ahmad, S.R., Baqar, M. and Sardar, F.	2020	Evaluation of River Chenab water quality with respect to its users, using different classification schemes.	Water Supply.	08	2971-2987



Sr. No.	Authors	Year	Title of Paper	Name of Publishing Journal	Vol. / No.	Page
34.	Ashraf, M.Y., Tariq, S., Saleem, M., Khan, M.A., Hassan, S.W.U. and Sadeef. Y.	2020	Calcium and zinc mediated growth and physio-biochemical changes in mungbean grown under saline conditions	Journal of Plant Nutrition	43	04:00
35.	Bashir, F., Irfan, M., Ahmad, T., Iqbal, J., Butt, M.T., Sadeef, Y., Umbreen, M., Shaikh, I.A. and Moniruzzaman, M.	2020	Unusual pattern of aflatoxins and ochratoxin in commercially grown maize varieties of Pakistan	Toxicon	182	66-71
36.	Hassan, S.W.U., Sadeef, Y., Hussain, S., Asi, M.R., Ashraf, M.Y., Anwar, S. and Malik, A.	2020	Efficient Utilization of low cost agro materials for incorporation of copper nanoparticles to scrutinize their antibacterial properties in drinking water	Environmental Technology and Innovation	21	101228
37.	Ali, A., Shaikh, I.A. Abbasi, N.A., Firdous, N.A., Ashraf, M.N.	2020	Enhancing water efficiency and wastewater treatment using sustainable technologies: A laboratory and pilot study for adhesive and leather chemicals production.	Journal of Water Process Engineering	36	101308
38.	Ali, Q., Shabaan, M., Ashraf, S., Rehman, A., & Asghar, H. N.	2020	Genetically Modified Rice Stacked with Antioxidants for Nutrient Enhancement and Stress Tolerance.	In: Roychoudhury A. (eds) Rice Research for Quality Improvement: Genomics and Genetic Engineering. Springer, Singapore.	433-467.	https://doi.org/10.1007/978-981-15-5337-0_19
39.	Tasneem, F., Abbasi, N.A., Jamshad, M., Ahmad, S.R., Qadir, A., and Naseem, R.	2020	Dietary Proxies ($\delta^{15}\text{N}$, $\delta^{13}\text{C}$) as Signature of Metals and Arsenic Exposure in Birds from Aquatic and Terrestrial Food Chains.	Environmental Research	183: 109191.	https://doi.org/10.1016/j.envres.2020.109191
40.	Kanwal, S., Abbasi, N.A., Chaudhry, M.J.I., Ahmad, S.R., and Malik, R.N.,	2020	Oxidative Stress Risk Assessment through Heavy Metal and Arsenic Exposure in Terrestrial and Aquatic Bird Species of Pakistan.	Environmental Science and Pollution Research	27:	12293 - 12307
41.	Chaudhary, J.N., Arshad, M., Bakhsh, A., Rizwan, M., Nawaz, Q., Zaman, M., Awais, M., Arsalan, M., Azhar, A.H. and Hussain B.	2020	Impact assessment of precision agriculture and optimization of fertigation for corn growth.	Pak. J. Agri. Sci	DOI:10.21162/PAKJAS/20.9305 (IF=)	



Sr. No.	Authors	Year	Title of Paper	Name of Publishing Journal	Vol. / No.	Page
42.	Mehmood, Q., Mahmood, W., Awais, M., Rashid, H., Rizwan, M., Anjum, L., Muneer, M.a., Niaz, Y., Hamid, S.	2020	Optimizing groundwater quality exploration for irrigation water wells using the geophysical technique in the semi-arid irrigated area of Pakistan.	Groundwater for Sustainable Development.	22:100397.	(Cite Score:3.7)
43.	Khan, S.U., Ahmad, S.R. and Javed, M.A.	2020	Impact Assessment of Groundwater Quality on Human Health in Tehsil Jhang using Geospatial Techniques.	International Journal of Scientific & Engineering Research (IJSER)		
44.	Anwar, S., Syed, N.A., Samin, D., Ahmad, M.N., and Ahmad, S.R.	2020	Study of Climate Variability of Sargodha, Pakistan using Satellite Derived temporal Land Surface Temperature and its Comparison with Ground Data, ,	International Journal of Current Research	12(07)	12501 - 12505
45.	Arub, S., Ahmad, S.R., Ashraf, S., Majid, Z., Rahat, S. & Paracha, R.I.	2020	Assessment of Waste Generation Rate in Teaching hospitals of metropolitan City of Pakistan	Civil Engineering Journal	6(9)	1809-1821
46.	Ashraf, N. Ahmad, S.R., Ahmad, A., and Javed M.A.	2020	Assessment of Land suitability for Tea Cultivation using Geo-Informatics in the Mansehra and Abbottabad District.	Pakistan Journal of Scientific and Industrial Research: Ser. A: Physical Science	63A(1)	65-70
47.	Shakoor, Z., Hussain, Z. and Ahmad S.R.	2020	Assessing Spatial Urban Growth using Mixed Method Approach: The Case of Lahore, Pakistan.	Global Scientific Journal	8(8)	

○ **Conferences, Seminars and Workshops, etc.**

Sr. No.	Type	Title	Level	Date
1	Chief Organizer	2 nd International Conference on Emerging Trends in Earth and Environmental Sciences, held at the College of Earth and Environmental Sciences, University of the Punjab, Lahore	International	March 4-6, 2020
2	Oral Presentation	Presented Oral Presentation 32 research papers in the 2 nd International Conference on Emerging Trends in Earth and Environmental Sciences, held at the College of Earth and Environmental Sciences, University of the Punjab, Lahore	International	March 4-6, 2020



○ **Seminars / Workshops Organized**

National

- Seminar on “Pakistan as a Best Tourists Destination” to create awareness and promote the Pakistan Tourism Industry held on January 29, 2020.
- Organized Student Society Training on Peace Narrative held on January 29-31, 2020 by the CEES, P.U., Lahore at IBA, P.U., Lahore
- Celebration of Kashmir Day to pay tribute to Kashmiris Struggle and Shuhda-e-Kashmir, held on 05-02-2020
- Organized a Seminar to pay Tribute to the Soldiers of Pakistan Army on completion of 01 year held on 25-02-2020
- Seminar and meeting with Chinese Delegation held on 18-02-2020
- Seminar and Celebration on “World Ozone Day” held on 16-09-2020.
- Seminar and Tree Plantation Campaign under Clean & Green Pakistan Campaign in the University of the Punjab, Zone-4 held on 25-09-2020

International

- 2nd International Conference on Emerging Trends in Earth and Environmental Sciences, held from March 4-6, 2020.

○ **Research Journals**

College of Earth and Environmental Sciences has launched its Journal “Pakistan Journal of Earth and Environmental Sciences” (ISSN 2519-9897) which will be published in near future.

RESEARCH COLLABORATION

○ **Indigenous**

- University of Management & Technology (UMT), Lahore-Pakistan
- Government College University Faisalabad (GCUF)
- University of Windsor, Ontario, Canada
- American Rainwater Catchment System (Pakistan Chapter)
- M/s Wisey's Germany
- PCRET, Pakistan
- Pakistan Meteorological Department
- Ministry of Climate Change
- WAPDA
- PCRWR
- Soil Survey of Pakistan
- Indus Consortium
- WWF (Pakistan)
- Bulleh Shah Packages
- Waste Busters
- The Urban Unit



○ **Linkages**

The College of Earth and Environmental Sciences has initiated linkages with various national and international and academic institutions as detailed below:

- Collaboration with GAT Consulting Pvt. Ltd. to enhance cooperation in the project entitled "Preparation of Designation and Investment Plans for Province of Punjab
- MoU with OXFAM Pakistan to enhance cooperation in climate change poverty, leadership and knowledge management. In broader term this is an initiative towards achieving some of sustainable goals. (SDGs)

○ **Funding Grants for R&D**

Research Project grant under NRPU Project of College of Earth and Environmental Sciences awarded by the HEC under NRPU Program 2019 and 2nd Year grant has been released by the HEC.

COLLEGE OF STATISTICAL & ACTUARIAL SCIENCES

○ **An Overview**

Research and Development is the integral part of the curricula of all our academic programs. A large number of students of all academic programs opt the research & report writing (as a paper titled 'Thesis') during the last semester. However, internship programs are also done by the students. Research and report writing for M.Phil and PhD scholars is mandatory. Software as well as hardware relating to Research and development is also available in the college.

○ **Projects: Newly launched 02**

S.#	Name of Faculty Member	Year	Title	Donor Agency	Amount (million Rs)	Role	Status
1	Dr. Rehan Ahmad Khan	2020	Molecular Genetic Investigation of isolated Ventricular Septal Defects (VSDs) in Pakistani children and designing a prenatal screening and awareness strategy	Higher Education Commission	1.6	Statistical Analyst	Submitted
2	Dr. Rehan Ahmad Khan	2019	Meta-Analysis of Genotypes of Hepatitis C Virus (HBV) in Pakistan	University of the Punjab, Pakistan	0.150	Principal Investigator	Write up

○ **Publications: Books / Edited**

S.#	Name of Faculty Member	Year	Title	Book / Chapter	Publisher	Status
1	Dr. Rehan Ahmad Khan	2019	Product Acceptance Determination Using Similarity Measure Index under Neutrosophic Statistics	Chapter	NOVA	Published



S.#	Name of Faculty Member	Year	Title	Book / Chapter	Publisher	Status
2	Dr. Rehan Ahmad Khan	2019	“Neutrosophic Descriptive Statistics” for book “Quadruple Neutrosophic Theories and Applications”	Chapter	NOVA	Published

Journal Articles

- Rashid, M. and Chand, S. (2019), Socio-economic factors of misconception about HIV/AIDS among ever-married women in Punjab: A comparison of non-spatial and spatial hierarchical Bayesian Poisson model Kuwait Journal of Science, 46(4): 33-46.
- Sherwani, R.A.K., Abbas, K., Farooq, M., Abbas, S., Raza, M.A., Abid, M. (2019), Gender disparities in human development and associated factors in low, medium, high and very high human developed countries. Pakistan Economic and Social Review.
- Saeed, S. and Ong, H.C. (2019), A bi-objective hybrid algorithm for the classification of imbalanced noisy and borderline data sets, Pattern Analysis and Applications volume. 22, 979–998.
- Ahmad, M., Chand, S. and Yaseen, M. (2020). High Resolution Bayesian Spatio-Temporal Precipitation Modeling in Pakistan for the Appraisal of Trends. Pakistan Journal of Agriculture Sciences. 57(6): 1669-1680.
- Ul-Haq, A., Chand, S., Sajjad, M.Z. and Usman, R.M. (2020). Evaluating the suitability of two parametric wind speed distributions: a case study from Pakistan. Modeling Earth Systems and Environment 2020: 1-9.
- Saud, N. and Chand, S. (2020). Goodness of fit tests for Marshall-Olkin Extended Rayleigh distribution. Pakistan Journal of Statistics and Operation Research, 587-598.
- Chand, S. and Ahmad, M. (2020). Appraisal of spatial and temporal behavior in monsoon precipitation series of Punjab-Pakistan using hierarchical Bayesian Models. Environmental Earth Sciences 79 (12), 1-13.
- Javed, Z, Chand, S. and Amer, R. (2020). Geospatial Analysis of Groundwater Quality in the Major Cities of Pakistan. Desalination and Water Treatment, 198, 61-70.
- Saleem, S., & Sherwani, R.A.K. (2020). Selecting and Estimating Rank Score Functions Based on Residuals for Linear Mixed Models. Punjab University Journal of Mathematics, 52(9): 47-63.
- Ain, N., Abrara, S., Sherwani, R.A.K., Hannana, A., Imrana, N., & Riaz, S. (2020). Systematic surveillance and meta-analysis on the prevalence of metallo- β -lactamase producers among carbapenem resistant clinical isolates in Pakistan. Journal of Global Antimicrobial Resistance, 23, 55–63.
- Aslam, M., Arif, A.H., & Sherwani, R.A.K. (2020) New Diagnosis Test under the Neutrosophic Statistics: An Application to Diabetic Patients. BioMed Research International, DOI: 10.1155/2020/2086185.



- Cao, J., Guan, Z., Yue, L., Saif, U., & Sherwani, R.A.K. (2020). A Bottleneck Degree-Based Migrating Birds Optimization Algorithm for the PCB Production Scheduling. IEEE Access. DOI: 10.1109/ACCESS.2020.3033002.
- Abid, M., Shabbir, A., Nazir, H.Z., Sherwani, R.A.K., & Riaz, M. (2020). A double homogeneously weighted moving average control chart for monitoring of the process mean. Qual Reliab Engng Int., 36: 1513–1527.
- Raza, M.A., Nawaz, T., Aslam, M., Bhatti, S.H., & Sherwani, R.A.K. (2020). A new nonparametric double exponentially weighted moving average control chart. Qual Reliab Engng Int., 36: 68–87.
- Usman, R.M. & Ilyas, M. (2020), The power Burr type X distribution: Properties, regression modeling and applications. Punjab University Journal of Mathematics, 52(8), 27-44.
- Samreen Riaz, Shakeeb ul Arslan, Rajab Ali, Aasma Riaz. (2020), Statistical Analysis to identify the effect of risk factors on diabetic patients from the Sheikh Zaid Hospital Lahore. Current Trends on Biostatistics & Biometrics, CTBB.MS.ID.000163. DOI: 10.32474/ CTBB.2020.03.000163. 3 (3), 368-382.
- Snobia Munir, Samreen Riaz, Tooba Arshad & Aasma Riaz. (2020), Risk Factors Associated to Patients with Type 2 Diabetes in Lahore District. Annals of Clinical Endocrinology and Metabolism, 4(1), 11-19.
- **Conferences, Seminars and Workshops, etc.**
Various workshops were arranged for the students of BS Statistics, BS Operation Research, BS Actuarial Science, M.Sc. Actuarial Sciences, M.Sc. Statistics, M.Sc. Business Statistics & Management and Master of Information & Operational Management during the year 2019-2020. College conducts many awareness seminars on regular basis such as;
 - Two days workshop on “Data Analysis using SPSS”, 4-5 March, 2020;
 - Seminar on “Data Handling & Key Functions of the Bureau of Statistics”, 13th February, 2020
- **Research Journals**
The College’s quarterly research journal ‘Pakistan Journal of Statistics and Operation Research’ regularly being published since 2005.

RESEARCH COLLABORATION

- **Indigenous**
 - Higher Education Commission (HEC)
 - Bureau of Statistics Punjab (Government of the Punjab)
 - Crop Reporting Service (Government of the Punjab)
 - HAC Agri Limited
 - Ehsan Chappal Store, ECS Pvt. Limited
 - Service Sales Corporation Pvt. Limited
 - State Bank of Pakistan



DEPARTMENT OF GEOGRAPHY

○ **R&D-An Overview**

Department of Geography was formerly established at the University of the Punjab in October 1944, at its Old campus. Later it was shifted to its new campus i.e. Quaid-e-Azam Campus in 1965. At the time of independence Geography Department was offering graduate work at Master level. The department is now offering new programs like BS, M.Phil/MS Geography and PhD.

- Seminar Library is available online.
- Laptops are provided to faculty members by the department.
- Pakistan Geographical Review (PGR), A research Journal of the department is available online.

○ **Projects**

- Completed: 2
- Newly launched: 3

○ **Publications**

The following research papers were published by the faculty of this Department
Research Papers/Articles Published

Prof. Dr. Safdar Ali Shirazi

- Hanif A., Shirazi S.A & Majid A.,(2020). "Assessing Quality of Life through People's Perception: A Case of Lahore-Pakistan" J. Agric. Res., Vol. 58(4), 289-295 <https://jar.punjab.gov.pk/ISSN> (Print) 0368-1157 (Online)
- Mahmoudi P, Shirazi S.A ,Firoozi,F , Jahanshahi S.M.A & Mazhar,N (2020). "Detection of land cover changes in Baluchistan (shared between Iran, Pakistan, and Afghanistan) using the MODIS Land Cover Products" Arabian Journal of Geosciences (2020) 13: <https://doi.org/10.1007/s12517-020-06284-9>
- Hanif A., Shirazi S.A & Majid A.,(2020). "Role of Community for improvement of Ecosystem Services in Urban Parks" Pak. J. Agri. Sci., Vol. 57(x), xxx-xxx; 2020
ISSN (Print) 0552-9034, ISSN (Online) 2076-0906 DOI: 10.21162/PAKJAS/20.352.
<http://www.pakjas.com.pk> <http://pakjas.com.pk/InPress.php> pp.1-6
- Hussain S.M., Abbas S., Shirazi S.A & Khurshid M., Wahla S.S., (2020). "Connection between the South and East Asian Monsoons: Comparing Summer Monsoon Rainfall of Pakistan and South Korea" Int. J. Econ. Environ. Geol. Vol.11 (2) 06-11, 2020 ISSN: 2223-957X <https://www.econ-environ-geol.org/index.php/ojs/article/view/438>
- Mazhar N.,Shirazi S.A (2020). "The Preliminary Study of Anthropogenic and Natural Drivers of Desertification in Drylands of South Punjab, Pakistan" Int. J. Econ. Environ. Geol. Vol.11(1) 102-107, 2020 ISSN: 2223-957X <https://www.econ-environ-geol.org/index.php/ojs/article/view/420>
- Abbas, S., Hussain, M.S., Shirazi S.A, & Khurshid, M. (2020). "Impact Analysis of Climatic Conditions on the Rabi Crops and Green Economic Development in Swat Valley of Pakistan" Pakistan Journal of Science, Vol. 72 No. 2 June, 2020 Lahore pp.97-102



<http://paas-pk.com/SubPages/Journal/ResearchPaper.aspx?fcso=2&menuid=1006&manid=6754>

- Abbas, S., Hussain, M.S., Shirazi S.A, & Khurshid, M. (2020). "Assessment of Physiographic Features and Changing Climate of Kabul River Catchment Area in Northwestern Pakistan" Pakistan Journal of Science, Vol. 72 No. 2 June, 2020 Lahore pp.112-118 <http://paas-pk.com/SubPages/Journal/ResearchPaper.aspx?fcso=2&menuid=1006&manid=6757>
- Abbas, S., Shirazi S.A, Hussain, M., Yaseen, M., Shakarullah, K., Wahla, S.S., & Khurshid, M. (2020). Impact of Climate Change on Forest Cover: Implications for Carbon Stock Assessment and Sustainable Development in HKH Region-Pakistan. Journal of Pakistan Vision, 21(1): 66-81. (Y category-HEC recognized). http://pu.edu.pk/images/journal/studies/PDF-FILES/5_v21_1_20.pdf

Dr. Isma Younes

- 2019, Impact assessment of urbanization growth on land surface temperature through RS & GIS: A Case study Gujranwala City, Punjab, Pakistan. International Journal of economics and environmental geology. Vol.9; No. 3, 2019.
- 2019, Assessment of smog pattern and its effects on visibility in Lahore using remote sensing and GIS, International Journal of economics and environmental geology, 50-54.
- 2019, Industrial Noise pollution and its impact on the hearing capacity of workers: A case study of Gujranwala city, Pakistan, International Journal of Economics and environmental geology, Vol 10(2) 45-49.
- 2019, Analytical Review of Land Use Changes by Remote Sensing and GIS Techniques in District Gujrat, Pakistan, International Journal of Economics and environmental geology Vol. 10 (2) 115-120
- 2020, Landuse and Community-Based Assessment of 2014 Flood Damages in Tehsil Phalia, Punjab. International Journal of Economics and environmental geology Vol. 11 (2) 55-60

Dr. Saima Siddique

- Aziz, S., Kakar, S.D., Siddiqui, S., Kamran, K. (2020). Prevalence of Intestinal Helminthic Parasites Among the Children of the Local Population of Quetta District, Balochistan, Pakistan - International Journal of Biosciences - Vol. 17 (2), 179-184.
- Kamran, K., Villagra, C.A., Iqbal, A., Kakar, A., Schapheer, C., Taj, M.K., Ali, A. and Siddiqui, S. (February, 2020). 29-kDa: A Potential Candidate for Anti-Tick Vaccine Antigen Source as Immunogenic and Stage Reactive Targeting Hard-Bodied Hyalomma Ticks (Ixodidae) - Indian Journal of Animal Research - DOI: 10.18805/ijar.B-1191 | Article Id: B-1191
- Safi, M. W. A., Siddiqui, S., Rehman, N., Tariq, A. (October, 2020) - Impact of Climate Change on Land use/Land cover of Chakwal District– International Journal of Economic and Environmental Geology - Vol. 11 (2), 65-68.



- Haider, S.W., Siddiqui, S., Tariq, M., (October, 2020) - Major, Minor and Trace Elements Existence in Surface Sediments from Gwadar to Jiwan Coastal Areas of Pakistan - International Journal of Economic and Environmental Geology - Vol. 11 (2), 37-45.
- Safi, M. W. A., Siddiqui, S., Tariq, A., Rehman, N., Haider, S.W. (October, 2020) - GIS Based Universal Soil Erosion Estimation in District Chakwal Punjab, Pakistan - International Journal of Economic and Environmental Geology - Vol. 11 (2), 30-36.
- Hussain, S., Liaqut, A., Siddiqui, S., Younes, I., Shafiq, M. (October, 2020) - Landuse and Community-based Assessment of 2014 Flood Damages in Tehsil Phalia, Punjab – International Journal of Economic and Environmental Geology - Vol. 11 (2), 55-60.
- Siddiqui, R., Siddiqui, S., Javid, K., Akram, M.A.N. (June, 2020) - Estimation of Rainwater Harvesting Potential and its Utility in the Educational Institutes of Lahore using GIS Techniques – Pakistan Geographical Review - Vol. 75 (1), 01-09.
- Mustafa, G., Ali, N., Siddiqui, S., Shah, Y. F. (June, 2020) - Estimation of Rainwater Harvesting Potential and its Utility in the Educational Institutes of Lahore using GIS Techniques – Pakistan Geographical Review - Vol. 6 (1), 219-242.
- Nazli, S., Siddiqui, S., Rehman, N., (July, 2020) - Assessing the Impact of Eucalyptus Plantation on Groundwater Availability in Pakistan – International Journal of Economic and Environmental Geology - Vol. 11 (1), 59-64.
- Owais, M., Siddiqui, S. (October, 2019) - Appraisal of Deforestation and Forest Degradation in District Swat, Pakistan International Journal of Economic and Environmental Geology - Vol. 10 (3), 7-15.

Adeel Ahmad

- Hassan, M.A. Javed, M. Asif, M. Luqman, S.R. Ahmad, A. Ahmad, S. Akhtar, B. Hussain. 2020. "The Weighted Overlay Based Land Suitability Analysis of Agriculture Land in Azad Jammu and Kashmir using GIS and AHP". Pakistan Journal of Agricultural Sciences, Vol.57, No 6, p. 1509-1519 <https://dx.doi.org/10.21162/PAKJAS/20.9507> ISSN (Online): 2076-0906 ISSN (Print): 0552-9034
- N. B. Dung, D. T. Minh, A. Ahmad, N. Q. Long. 2020. "The Role of Relative Slope Length in Flood Hazard Mapping Using AHP And GIS (Case Study: Lam River Basin, Vietnam)". Geography, Environment, Sustainability, Vol.13, No 2, p. 118-126 <https://DOI-10.24057/2071-9388-2020-48> ISSN: 2542-1565
- S. Tong, T. Pham, Q. L. Nguyen, T. T. H. Le, L. H. Trinh, X. C. Cao, A. Ahmad, T. Tong .2020. "The Study of Land Cover Change Using Change Vector Approach Integrated with Unsupervised Classification Method: A Case in Duy Tien (Vietnam)." Geography, Environment, Sustainability, Vol.13, No 2, p. 175-184 <https://DOI-10.24057/2071-9388-2019-62> ISSN: 2542-1565 (Y category-HEC recognized)
- Ashraf, N., S. R. Ahmad, A. Ahmad, and M. A. Javed. 2020. "Assessment of Land Suitability for Tea Cultivation using Geo-Informatics in the Mansehra and Abbottabad District." Pakistan Journal of Scientific and Industrial Research 63A (1): 65-70. <https://v3.pjsir.org/index.php/physical-sciences/issue/view/28> ISSN: 2223-2559



○ Research Journals

The prestigious Pakistan Geographical Review is being published since 1942 and is available online.

RESEARCH COLLABORATION

○ Indigenous

Thesis and Research Reports are regularly carried out by the students of this department and are available in Seminar Library. The faculty of this department is supervising research thesis/reports not only of their own students but also various other post-graduate departments of the Punjab.

DEPARTMENT OF MATHEMATICS

R&D - An Overview

Department of Mathematics organized a series of departmental seminars

- Prof. Dr. Malik Zawwar Hussain, Prof. Dr. Muhammad Sharif, Prof. Dr. Muhammad Akram, Dr. Muhammad Riaz, Dr. Nauman Raza, Dr. Saima Arshed, Dr. Muhammad Zaeem ul Haq Bhatti, Dr. Zeeshan Yousaf and Dr. Maasoomah Sadaf presented papers in different National and International conferences. During the above mentioned period, the detail of enrolled students is 35 in Ph.D., 77 Students in M.Phil. 139 students in M.Sc. (Morning), 70 students in M.Sc. (Self-Supporting), 122 students in BS Mathematics (4 Years Program).
- 09 Ph.D. Students, 41 M.Phil. Students, 141 M.Sc. students and 28 BS Students completed their degrees during the said period. M.Phil. / Ph.D. students are doing research in different fields under the supervision of Prof. Dr. Muhammad Sharif, Prof. Dr. Malik Zawwar Hussain, Prof. Dr. Muhammad Akram, Prof. Dr. Ghazala Akram, Dr. Muhammad Aslam Malik, Dr. Daud Ahmed, Dr. Muhammad Riaz, Dr. Muhammad Khalid Mehmood, Dr. Nauman Raza, Dr. Aziz Ullah Awan, Dr. Uzma Ahmed, Dr. Zeeshan Yousaf, Dr. Saima Arshed, Dr. Muhammad Zaeem ul Haq Bhatti.
- The faculty members, M.Phil. and PhD scholars are delivered the lectures, departmental seminar series, which is held on every Wednesday.
- Departmental Library has been enriched by adding 26 books and 12 journals relevant to Mathematics.

○ Research Projects

Sr. No.	Name of Faculty Members	Sponsor	Completed / In Process
1	Prof. Dr. Muhammad Sharif	Higher Education Commission of Pakistan	In process
2	Prof. Dr. Muhammad Sharif	Pakistan Academy of Sciences	In process
3	Prof. Dr. Muhammad Akram	National Research program for Universities	In process
4	Prof. Dr. Ghazala Akram	University of the Punjab, Lahore.	Completed
5	Dr. Mobeen Munir	Higher Education Commission of Pakistan	In process
6	Dr. Muhammad Khalid Mehmood	University of the Punjab, Lahore.	Completed



7	Dr. Nauman Raza	University of the Punjab, Lahore.	Completed
8	Dr. Uzma Ahmad	University of the Punjab, Lahore.	Completed
9	Dr. Aziz Ullah Awan	University of the Punjab, Lahore.	Completed
10	Dr. Muhammad Zaeem ul Haq Bhatti	National Research program for Universities	In process
11	Dr. Zeeshan Yousaf	National Research program for Universities	In process

○ Publications

- Arooj, T., Hussain, F. & Hussain, M. Z. (2020), A fractal interpolation function through shear factor with perturbation error analysis, NED University Journal of Research, Vol. 17(2), 15-22.
- Hussain, M. Z., Arooj, T., & Yousaf, S., (2020), Simulation and Modeling of Diffraction Pattern of Crystallography: A Fractal Approach, Computational and Applied Mathematics, 39:79, <https://doi.org/10.1007/s40314-020-1099-7>.
- Saleem, S., & Hussain, M. Z. (2020), Numerical solution of nonlinear fifth-order KdV-type partial differential equations via Haar wavelet, International Journal of Applied and Computational Mathematics, 6:164, <https://doi.org/10.1007/s40819-020-00907-1>.
- Hussain, M. & Hussain, M. Z., (2020), Energy minimizing cubic H-Bézier curve, Journal of Testing and Evaluation, doi:10.1520/JTE20190750.
- Study of (1+2)-dimensional Charged String Cloud with Minimal Geometric Deformation: M. Sharif and Qanitah Ama-Tul-Mughani, Int. J. Geom. Methd. Mod. Phys. 16(2019)1950187 (World Scientific).
- Role of Curvature-Matter Coupling on Anisotropic Strange Stars: M. Sharif and Arfa Waseem, Chin. J. Phys. 63(2020)92-103 (Elsevier).
- Greybody Factor for Quintessential Kerr-Newman Black Hole: M. Sharif and Qanitah Ama-Tul-Mughani, Phys. Dark Universe 27(2020)100436 (Elsevier).
- Gravitational Decoupled Durgapal-Fuloria Anisotropic Solutions in Modified Gauss-Bonnet Gravity: M. Sharif and Saadia Saba, Chin. J. Phys. 63(2020)348-364 (Elsevier).
- Charged Cylindrical Collapse in $f(R)$ Gravity: M. Sharif and Saba Naz, Mod. Phys. Lett. A 35(2020)1950340 (World Scientific).
- Dynamics of Scalar Shell for Rotating and Charged Rotating BTZ Black Holes: M. Sharif and Faisal Javed, Mod. Phys. Lett. A 35(2020)1950350 (World Scientific).
- Anisotropic Compact Stars in Self-interacting Brans-Dicke Gravity: M. Sharif and Amal Majid, Astrophys. Space Sci. 365(2020)42 (Springer).
- Dynamical Instability of Anisotropic Homogeneous Cylinder: M. Sharif and Qanitah Ama-Tul-Mughani, Mod. Phys. Lett. A 35(2020)2050009 (World Scientific).
- Stability of Charged Rotating (2+1)-Dimensional Wormholes: M. Sharif and Faisal Javed, Int. J. Mod. Phys. D 29(2020)2050007 (World Scientific).
- Anisotropic Spherical Solutions through Extended Gravitational Decoupling Approach: M. Sharif and Qanitah Ama-Tul-Mughani, Ann. Phys. 415(2020)168122 (Elsevier).
- Stability of Gravastars with Exterior Regular Black Holes: M. Sharif and Faisal Javed, Ann. Phys. 415(2020)168124 (Elsevier).



- Stability of Charged Kiselev Thin-shell Wormholes: M. Sharif and Faisal Javed, Int. J. Mod. Phys. A 35(2020)2040015 (World Scientific).
- Dynamics of Thin-Shell Wormholes with Rotational Effects: M. Sharif, Saadia Mumtaz and Faisal Javed, Int. J. Mod. Phys. A 35(2020)2050030 (World Scientific).
- Embedding Class-1 Anisotropic Solution in $f(\mathcal{G})$ Gravity: M. Sharif and Saadia Saba, Chin. J. Phys. 64(2020)374-389 (Elsevier).
- Dynamics of the Scalar Shell in Higher Dimensions: M. Sharif and Faisal Javed, Ann. Phys. 416(2020)168146 (Elsevier).
- Extended Gravitational Decoupled Charged Anisotropic Solutions: M. Sharif and Qanitah Ama-Tul-Mughani, Chin. J. Phys. 65(2020)207-220 (Elsevier).
- Cosmic Evolution of Ghost Dark Energy Models in $f(G,T)$ Gravity: M. Sharif and Saadia Saba, Mod. Phys. Lett. A 35(2020)2050063 (World Scientific).
- Embedding Adler-Finch-Skea Anisotropic Solution in $f(\mathcal{G})$ Gravity: M. Sharif and Saadia Saba, J. Exp. Theor. Phys. 130(2020)397-408 (Springer).
- Greybody Factor for Rotating Black Hole with Quintessential Energy: M. Sharif and Qanitah Ama-Tul-Mughani, Prog. Theor. Exp. Phys. 2020(2020)033E01 (Oxford Univ. Press).
- Study of Thin-Shell around Wormhole: M. Sharif and Komal Ashraf, Chin. J. Phys. 65(2020)242-253 (Elsevier).
- Gravitational Decoupled Solutions of Axial String Cosmology: M. Sharif and Qanitah Ama-Tul-Mughani, Mod. Phys. Lett. A 35(2020)2050091 (World Scientific).
- Study of Tilted Cylindrical Quark Star: M. Sharif and Sumaira Nazir, Mod. Phys. Lett. A 35(2020)2050110 (World Scientific).
- Quasi-normal Modes and Thermal Fluctuations of Charged Black Hole with Weyl Corrections: M. Sharif and Zunaira Akhtar, Phys. Dark Universe 29(2020)100589 (Elsevier).
- Electromagnetic Effects on the Stability of Anisotropic Cylinder: M. Sharif and Qanitah Ama-Tul-Mughani, Mod. Phys. Lett. A 35(2020)2050124 (World Scientific).
- Extended Gravitational Decoupling Approach in $f(\mathcal{G})$ Gravity: M. Sharif and Saadia Saba, Int. J. Mod. Phys. D 29(2020)2050041 (World Scientific).
- Extended Gravitational Decoupled Solutions in Self-interacting Brans-Dicke Theory: M. Sharif and Amal Majid, Phys. Dark Universe 30(2020)100610 (Elsevier).
- Stability of Anisotropic Perturbed Einstein Universe in $f(R)$ Gravity: M. Sharif and Sana Saleem, Mod. Phys. Lett. A 35(2020)2050152 (World Scientific).
- Anisotropic Strange Stars through Embedding Technique in Massive Brans-Dicke Gravity: M. Sharif and Amal Majid, Eur. Phys. J. Plus 135(2020)558 (Springer).
- Anisotropic Stellar Structures in Curvature-Matter Coupling Gravity: M. Sharif and Aroob Naeem, Chin. J. Phys. 66(2020)765-775 (Elsevier).
- Thermodynamics of Rotating Regular Black Holes: M. Sharif and H. Saba Nawaz, Chin. J. Phys. 67(2020)193-202 (Elsevier).
- Anisotropic Solution for Compact Objects in $f(\mathcal{G}, \mathcal{T})$ Gravity: M. Sharif and Aroob Naeem, Int. J. Mod. Phys. A 35(2020)2050121 (World Scientific).



- Quark Stars in Massive Brans-Dicke Gravity with Tolman-Kuchowicz Spacetime: Amal Majid and M. Sharif, Universe 06(2020)00124 (MDPI).
- Charged Anisotropic Strange Stars in $f(\mathcal{G})$ Gravity: M. Sharif and Amna Ramzan, Astrophys. Space Sci. 365(2020)137 (Springer).
- Static Wormhole Solutions and Noether Symmetry in Modified Gauss-Bonnet Gravity: M. Sharif and Shahid Hussain, Eur. Phys. J. C 80(2020)783 (Springer).
- Stability of Anisotropic Perturbed Einstein Universe in $f(R,T)$ Theory: M. Sharif and Sana Saleem, Mod. Phys. Lett. A 35(2020)2050222 (World Scientific).
- Complexity Factor for Charged Dissipative Dynamical System: M. Sharif and Saher Tariq, Mod. Phys. Lett. A 35(2020)2050231 (World Scientific).
- Phase Transition and Thermal Fluctuations of Quintessential Kerr-Newman-AdS Black Hole: M. Sharif and Qanitah Ama-Tul-Mughani, Phys. Dark Universe 30(2020)100723 (Elsevier).
- Study of Thermal Fluctuations in a Charged Rotating Accelerating AdS Black Hole: M. Sharif and Qanitah Ama-Tul-Mughani, Ann. Phys. 422(2020)168312 (Elsevier).
- Decoupled Anisotropic Spheres in Self-interacting Brans-Dicke Gravity: M. Sharif and Amal Majid, Chin. J. Phys. 68(2020)406-418 (Elsevier).
- Anisotropic Compact Stellar Objects in Modified Gauss-Bonnet Gravity: M. Sharif and Amna Ramzan, Phys. Dark Universe 30(2020)100737 (Elsevier).
- Impact of Kuchowicz Metric Function on Gravastars in $f(R,T)$ Theory: M. Sharif and Arfa Waseem, Eur. Phys. J. Plus. 135(2020)930 (Springer).
- Mechanical Stability of a Class of Regular Thin-Shell Wormholes: Faisal Javed and M. Sharif, Mod. Phys. Lett. A 37(2020)2050309 (World Scientific).
- Complexity of Dynamical Sphere in Self-interacting Brans-Dicke Gravity: M. Sharif and Amal Majid, Eur. Phys. J. C 80(2020)1185 (Springer).
- J. Zhan, Hafsa Masood and Akram, M, Novel decision-making algorithms based on intuitionistic fuzzy rough environment, International Journal of Machine Learning and Cybernetics, 10(6)(2019), 1459-1485.
- Akram, M. and Sitara, M., Certain fuzzy graph structures, Journal of Applied Mathematics and Computing, 61(1-2)(2019), 25-56.
- Sitara, M.; Akram, M, M.; Y. Bhatti, Fuzzy Graph Structures with Application, Mathematics, 7(1)(2019), 63.
- Habib, A., Akram, M, M.; Farooq, q-Rung orthopair fuzzy competition graphs with application in the soil ecosystem, Mathematics, 7(1)(2019), 91.
- Rehman, M. Hussain, A. Farooq and Akram, M, Consensus Based Multi-person Decision Making with Incomplete Fuzzy Preference Relations Using Product Transitivity, Mathematics, , 7(2)(2019), 185.
- Akram, M, H. Gulzar. K. P. Shum, Single-Valued Neutrosophic Lie Algebras, Journal of Mathematical Research with Applications, 39(2)(2019), 141-152.
- Akram, M, N. Waseem and P. Liu, Novel Approach in Decision Making with m-Polar Fuzzy ELECTRE-I, International Journal of Fuzzy Systems, 21(4)(2019), 1117-1129.



- Akram, M and Maham A., A Novel Trapezoidal Bipolar Fuzzy TOPSIS Method for Group Decision-Making, *Group Decision and Negotiation*, 28(3)(2019), 565-584.
- S. Naz and Akram, M, Novel decision making approach based on hesitant fuzzy sets and graph theory, *Computational and Applied Mathematics*, 38(7)(2019), 1-26.
- S. Habib, and M. Akram, Medical decision support systems based on fuzzy cognitive maps, *International Journal of Biomathematics*, 12(6)(2019), 34 pages.
- Akram, M, Adeel, A. and J. C. R. Alcantud, Group Decision-Making Methods Based on Hesitant N -Soft Sets, *Expert Systems with Applications*, 115(2019), 95–105.
- Akram, M., Shahzadi, G. and A.A. H. Ahmadini, Decision-Making Framework for an Effective Sanitizer to Reduce COVID-19 under Fermatean Fuzzy Environment, *Journal of Mathematics*, 2020, DOI: 10.1155/2020/3263407.
- Akram, M., Peng, X. & Sattar, A., Multi-criteria Decision-Making Model Using Complex
- Pythagorean Fuzzy Yager Aggregation Operators, *Arab J Sci Eng* (2020). <https://doi.org/10.1007/s13369-020-04864-1>.
- Akram, M., Sattar, A., Karaaslan, F. et al., Extension of competition graphs under complex fuzzy environment, *Complex Intell. Syst.* (2020). <https://doi.org/10.1007/s40747-020-00217-5>.
- Shahzadi, S., Sawrar, M. and Akram, M., Decision-making approach with fuzzy type-2 soft graphs, *Journal of Mathematics* 2020, <https://doi.org/10.1155/2020/8872446>.
- Akram, M., Adeel, A., Al-Kenani, A.N. et al., Hesitant fuzzy N-soft ELECTRE-II model:
- a new framework for decision-making. *Neural Comput & Applic* (2020). <https://doi.org/10.1007/s00521-020-05498-y>.
- Akram, M. et al., q-Rung orthopair fuzzy graphs under Hamacher operators, *Journal of Intelligent & Fuzzy Systems*, 2020, DOI: 10.3233/JIFS-201700.
- Shahzadi, G. and Akram, M., Group decision-making for the selection of an antivirus mask under fermatean fuzzy soft information, *Journal of Intelligent & Fuzzy Systems*, 2020, DOI: 10.3233/JIFS-201760.
- Akram, M., Naz, S., Shahzadi, S. and Ziaa, F., Geometric-arithmetic energy and atom bond connectivity energy of dual hesitant q-rung orthopair fuzzy graphs, *Journal of Intelligent & Fuzzy Systems*, 2020, DOI:10.3233/JIFS-201605.
- Saqib, M., Akram, M., Shahida, B., and Allahviranloo, T., Numerical solution of bipolar fuzzy initial value problem, *Journal of Intelligent & Fuzzy Systems*, DOI:10.3233/JIFS-201619.
- Akram, M., Alsulami S., Khan A. and Karaaslan F., Multi-Criteria Group Decision-Making Using Spherical Fuzzy Prioritized Weighted Aggregation Operators, *International Journal of Computational Intelligence Systems*, 13(1)(2020), 1429-1446.
- Akram, M. and Ali, G., Hybrid models for decision-making based on rough Pythagorean fuzzy bipolar soft information *Granular Computing*, 5(1)(2020), 1–5.
- Ali N.A.Koam, Akram, M., Muhammad, G. and Hussain, N., LU decomposition scheme for solving m-polar fuzzy system of linear equations, *Mathematical Problems in Engineering*, Article ID 8384593, 2020 (2020).



- Ali, N.A. Koam, Akram, M. and Liu, P., Decision-making analysis based on fuzzy graph structures, *Mathematical Problems in Engineering* Volume 2020, Article ID 6846257, 30 pages.
- Ali, G. and Akram, M., Decision-Making Method Based on Fuzzy N-Soft Expert Sets, *Arabian Journal for Science and Engineering*, (2020). <https://doi.org/10.1007/s13369-020-04733-x>.
- Akram, M., Ali, G., Alcantud, J.C.R. and Fatia F., Parameter reductions in N-soft sets and their applications in decision-making, *Expert Systems*, (2020), <https://doi.org/10.1111/exsy.12601>.
- Akram, M., Luqman, A. and Alcantud, J.C.R., Risk evaluation in failure modes and effects analysis: Hybrid TOPSIS and ELECTRE I solutions with Pythagorean fuzzy information, *Neural Computing and Applications*, (2020), DOI: 10.1007/s00521-020-05350-3.
- Akram, M. and Luqman, A., Granulation of ecological networks under fuzzy soft environment, *Soft Computing*, 24(2020), 11867-11892.
- Akram, M., Luqman, A. and Al-Kenani, A. N., Certain models of granular computing based on rough fuzzy approximations, *Journal of Intelligent and Fuzzy Systems*, 39(3)(2020), 2797–2816.
- Siddique, S., Ahmad, U. and Akram, M., A study on generalized graphs representations of complex neutrosophic information, *Journal of Applied Mathematics and Computing*, (2020), <https://doi.org/10.1007/s12190-020-01400-0>.
- Siddique, S., Ahmad, U., Wardat, S., Akram, M. and Smarandache, F., Representation of competitions by complex neutrosophic information, *Journal of Intelligent and Fuzzy Systems*, (2020), DOI: 10.3233/JIFS-201338.
- Akram, M., Muhammad, G., Allahviranloo, T. and Hussain, N., LU decomposition method to solve bipolar fuzzy linear systems, *Journal of Intelligent and Fuzzy Systems*, 39(3)(2020), 3329-3349.
- Akram, M., Ali, M. and Allahviranloo, T., Certain methods to solve bipolar fuzzy linear system of equations, *Computational and Applied Mathematics*, 39(2020), 213.
- Saqib, M., Akram, M. and Shahida, B., Certain efficient iterative methods for bipolar fuzzy system of linear equations, *Journal of Intelligent & Fuzzy Systems*, 39(3)(2020), 3971-3985.
- Ma, X., Akram, M., Zahid, K., Alcantud, J.C.R., Group decision-making framework using complex Pythagorean fuzzy information, *Neural Computing and Applications*, (2020), <https://doi.org/10.1007/s00521-020-05100-5>.
- Akram, M., Shahzadi, G. and Peng, X., Extension of Einstein geometric operators to multi-attribute decision-making under q-rung orthopair fuzzy information, *Granular Computing* (2020), <https://doi.org/10.1007/s41066-020-00233-3>.
- Akram, M., Shahzadi, G., A hybrid decision-making model under q-rung orthopair fuzzy Yager aggregation operators, *Granular Computing*, (2020), <https://doi.org/10.1007/s41066-020-00229-z>.



- Akram, M., Yaqoob, N., Ali, G., Chammam, W., Extensions of Dombi Aggregation Operators for decision-making under m-Polar Fuzzy Information, *Journal of Mathematics*, 2020(2020), Article No. 4739567.
- Akram, M., Peng, X., Al-Kenani, A.N. and Sattar, A., Prioritized weighted aggregation operators under complex pythagorean fuzzy information, *Journal of Intelligent & Fuzzy Systems*, 39(3)(2020), 4763-4783.
- Garg, H., Shahzadi, G. and Akram, M., Decision-making analysis based on Fermatean fuzzy Yager aggregation operators with application in COVID-19 testing facility, *Mathematical Problems in Engineering*, 2020, Article ID 7279027, 16 pages.
- Akram, M., Peng, X. and Sattar, A., Multi-criteria decision-making model using complex pythagorean fuzzy Yager aggregation operators, *Arabian Journal for Science and Engineer-ing*, (2020). <https://doi.org/10.1007/s13369-020-04864-1>.
- Liu, P., Shahzadi, G., and Akram, M., Specific types of q-rung picture fuzzy Yager aggregation operators for decision-making, *International Journal of Computational Intelligence Systems*, 13(1)(2020), 1072-1091.
- Akram, M., Khan, A. and Saeid, A.B., Complex Pythagorean Dombi fuzzy operators using aggregation operators and their decision-making, *Expert Systems*, (2020), <https://doi.org/10.1111/exsy.12626>.
- Liu, P., Akram, M. and Sattar, A., Extensions Of prioritized weighted aggregation operators for decision-making under complex q-rung orthopair fuzzy information, *Journal of Intelligent and Fuzzy Systems*, 39(5)(2020), 7469-7493.
- Liu, P., Akram, M. and Bashir, A., Extensions of power aggregation operators for decision making based on complex picture fuzzy knowledge, *Journal of Intelligent and Fuzzy Systems*, 20202, DOI: 10.3233/JIFS-201385.
- Akram, M., Bashir, A. and Garg, H., Decision-making model under complex picture fuzzy Hamacher aggregation operators. *Computational and Applied Mathematics*, 39(3)(2020), 1–38.
- Akram, M., J.M. Dar and S. Naz, Pythagorean Dombi Fuzzy Graphs, *Complex & Intelligent Systems*, 6(2020), 29–54.
- Akram, M and Adeel, A., Novel hybrid decision-making methods based on mF rough information, *Granular Computing*, 5(2020), 185–201.
- Akram, M., A. Habib and Alcantud, J.C.R., An Optimization Study Based on Dijkstra Algorithm for a Network with Picture Trapezoidal Fuzzy Number, *Neural Computing and Applications*, (2020). <https://doi.org/10.1007/s00521-020-05034-y>.
- Arooj A., Akram, M., N. Yaqoob and W. Chammam, Detection and severity of tumor cells by graded decision-making methods under fuzzy N-soft model, *Journal of Intelligent and Fuzzy Systems*, 39(1)(2020), 1303–1318.
- Akram, M., Garg, H. and K. Zahid, Extensions of ELECTRE-I and TOPSIS methods for group decision-making under complex Pythagorean fuzzy environment, *Iranian Journal of Fuzzy Systems*, 17(5)(2020), 147–164.



- Akram, M. and Khan, A. , Complex Pythagorean Dombi fuzzy graphs for decision making, *Granular Computing*, (2020), <https://doi.org/10.1007/s41066-020-00223-5>.
- Akram, M., Bashir, A. and Samanta, S., Complex Pythagorean Fuzzy Planar Graphs, *Int. Journal of Applied and Computational Mathematics*, 6, 58 (2020). <https://doi.org/10.1007/s40819-020-00817-2>.
- Akram, M., W.A. Dudek, A. Habib and Al-Kenani, Ahmad N., Imperfect competition models in economic market structure with q-rung picture fuzzy information, *Journal of Intelligent & Fuzzy Systems*, 38(4)(2020), 5107-5126.
- Akram, M. and Shahzadi, G., Decision-making approach based on Pythagorean Dombi fuzzy soft graphs, *Granular Computing*, (2020), <https://doi.org/10.1007/s41066-020-00224-4>.
- Akram, M. and K. P. Shum, A Survey on Single-Valued Neutrosophic K –Algebras, *Journal of Mathematical Research with Applications*, 40(3)(2020), DOI:10.3770/j.issn: 2095-2651.2020.03.000.
- Akram, M., Shumaiza, Alcantud, J.C.R. , An m-Polar Fuzzy PROMETHEE Approach for AHP-Assisted Group Decision-Making, *Mathematical and Computational Applications*, 25(2)(2020), 26.
- Asif, M., Akram, M. and Ali, G., Pythagorean Fuzzy Matroids with Application, *Symmetry*, 12(2020), 423.
- Akram, M. and A. Sattar, Competition graphs under complex Pythagorean fuzzy information, *Journal of Applied Mathematics and Computing*, 63(2020), 543-583.
- Akram, M., G. Ali and M. Shabir, A Hybrid Decision-Making Framework using Rough mF Bipolar Soft Environment, *Granular Computing*, DOI: 10.1007/s41066-020-00214-6, 2020.
- Akram, M. and A. Bashir, Complex Fuzzy Ordered Weighted Quadratic Averaging Operators, *Granular Computing*, DOI: 10.1007/s41066-020-00213-7, 2020.
- Akram, M., Sitara, M. and A.B. Saeid, Residue Product of Fuzzy Graph Structures, *Journal of Multiple-Valued Logic and Soft Computing*, 34(3-4)(2020), 365-399.
- Akram, M., D. Saleem and H. Rashmanlou, Signless Laplacian energy of bipolar fuzzy graphs with application, *International Journal of Advanced Intelligence Paradigms*, 2020.
- Shahzadi, G., Akram, M. and B. Davvaz, Pythagorean Fuzzy Soft Graphs with Applications, *Journal of Intelligent & Fuzzy Systems*, 38(4), 4977-4991.
- Sheikh Hoseini, Akram, M., M. Sheikh Hosseini, R. Rashmanlou and R.A. Borzooei, Maximal Product of Graphs under Vague Environment, *Mathematical and Computational Applications*, 25(1)(2020), 10.
- Akram, M., D. Saleem and T. Al-Hawary, Spherical Fuzzy Graphs with Application to Decision-Making, *Mathematical and Computational Applications*, 25(1)(2020), 8.
- Sarwar, M., Akram, M and M. Ali, Double dominating energy of m-Polar fuzzy graphs, *Journal of Intelligent & Fuzzy Systems*, 38(2)(2020), 1997-2008.



- Akram, M, F. Ilyasa and H. Garg, Multi-Criteria Group Decision Making Based on ELECTRE I Method in Pythagorean Fuzzy Information, *Soft Computing*, 24(5)(2020), 3425-453.
- Akram, M, G. Shahzadi and K.P. Shum, Operations on m-polar fuzzy r-uniform hypergraphs, *Southeast Asian Bulletin of Mathematics*, 44(2020), 1–16.
- Ali, G., Akram, M. and Alcantud, J.C.R., Attributes reductions of bipolar fuzzy relation decision systems, *Neural Computing and Applications*, 32(2020), 10051-10071.
- Shahzadi, G., Akram, M. and A. N. Al-Kenani, Decision Making Approach under Pythagorean Fuzzy Yager Weighted Operators, *Mathematics*, 8(1)(2020), 70.
- Akram, M., Shumaiza and A. N. Al-Kenani, Multi-Criteria Group Decision-Making for Selection of Green Suppliers under Bipolar Fuzzy PROMETHEE Process, *Symmetry*, 12(1)(2020), 77.
- Akram, M., Shumaiza and M. Arshad, Bipolar fuzzy TOPSIS and bipolar fuzzy ELECTRE-I methods to diagnosis, *Computational and Applied Mathematics*, 39(2020), 1-21.
- Level Set Shape Analysis of Binary 4-Point Non-stationary Interpolating Subdivision Scheme, Khalida Bibi, Ghazala Akram and Kashif Rehan, *International Journal of Applied and Computational Mathematics* 146(5), 1-15, 2019.
- Shape Preservation of Ternary 4-point Non-Stationary Interpolating Subdivision Scheme, Khalida Bibi, Ghazala Akram and Kashif Rehan, *Punjab University Journal of Mathematics*, 52(1), 77-97, 2020.
- A Legendre-homotopy method for the solutions of higher order boundary value problems, Ghazala Akram and Maasoomah Sadaf, *Journal of King Saud University – Science* 32(1), 537-543, 2020.
- Shape Preserving Properties with Constraints on the Tension Parameter of Binary 3-Point Approximating Subdivision Scheme, Khalida Bibi, Ghazala Akram and Kashif Rehan, *International Journal of Image and Graphics* 20(1), 1-21, 2050005, 2020.
- The modified auxiliary equation method to investigate solutions of the perturbed nonlinear Schrödinger equation with Kerr law nonlinearity, Nadia Mahak and Ghazala Akram, *Optik - International Journal for Light and Electron Optics*, 207, 164467, Apr. 2020.
- Dark Peakon, Kink and periodic solutions of the nonlinear Biswas–Milovic equation with Kerr law nonlinearity, Ghazala Akram and Iqra Zainab, *Optik - International Journal for Light and Electron Optics*, 208, 164420, Apr. 2020.
- Javed MA, Aslam MA. Properties of Circuits in Coset diagram by Modular Group, *Indian Journal of Science and Technology*. 2020; 13(14), 1458-1469.
- Malik MA, Javed MA. On circuit structure of -orbits of length eight, *Indian Journal of Science and Technology*. 2020; 13(22): 2220-2228.
- Bari MN, Aslam MA. Primitive Representations and the Modular Group, *Indian Journal of Science and Technology*. 2020; 13(25): 2547-2557.
- Chen T, Bari MN, Aslam MA, Siddiqui HMA, Liu JB. Icosahedral Group and Classification of -orbits of Real Quadratic Fields, *Journal of Mathematics*. Volume 2020:1-10.



- Bari MN, Aslam MA. Symmetries of Icosahedral Group and Classification of G-Circuits of Length Six, *Indian Journal of Science and Technology*. 2020; 13(27):2797-2810.
- Raza, N., Jhangeer, A., Rezazadeh, H. and Bekir, A. Explicit solutions of the Hirota-Maccari system arising in nonlinear optics, *International Journal of Modern Physics B*, 33 1950360 (2019)
- Raza, N. and Asad Ullah, M. A comparative study of heat transfer analysis of fractional Maxwell fluid by using Caputo and Caputo-Fabrizio derivatives, *Canadian Journal of Physics*, 98, 89-101 (2020)
- Arshed, S. and Raza, N. Optical Solitons Perturbation of Fokas-Lenells Equation with Full Nonlinearity and Dual Dispersion, *Chinese Journal of Physics*, 63, 314-324 (2020)
- Raza, N., Osman, M.S., Abdel-Aty, A.H., Abdel-Khalek, S., Besbes H.R. Optical solitons of space-time fractional Fokas–Lenells equation with two versatile integration architectures *Advances in Difference Equations* 2020 (1), 1-15
- Raza, N., Jhangeer, A., Arshed, S., Butt, A.R., Chu, Y.M. Dynamical analysis and phase portraits of two-mode waves in different media *Results in Physics*, 103650, 2020.
- A Razzaq, AR Seadawy, N Raza Heat transfer analysis of viscoelastic fluid flow with fractional Maxwell model in the cylindrical geometry *Physica Scripta* 95 (11), 115220, 2020.
- N Raza, A Javid Modulation instability and optical solitons of Radhakrishnan-Kundu-Lakshmanan model, *Journal of Applied Analysis and Computation* 10 (4), 1375-1395 2020.
- N Raza, MH Rafiq Abundant fractional solitons to the coupled nonlinear Schrödinger equations arising in shallow water waves *International Journal of Modern Physics B* 34 (18), 2050162, 2020.
- A Zubair, N Raza Optical bright, dark and dipole solitons with derivative nonlinearity in the presence of parity-time-symmetric lattices *Modern Physics Letters B* 34 (16), 2050174, 2020.
- N Raza, S Arshed Chiral bright and dark soliton solutions of Schrödinger's equation in (1+ 2)-dimensions *Ain Shams Engineering Journal*, 2020.
- A Jhangeer, N Raza, H Rezazadeh, A Seadawy Nonlinear self-adjointness, conserved quantities, bifurcation analysis and travelling wave solutions of a family of long-wave unstable lubrication model *Pramana* 94 (1), 1-9 2020.
- Bipolar neutrosophic Dombi aggregation operators with application in multi-attribute decision making problems. *IEEE Access*. 2020 Aug 26;8:156600-14.
- iHyd-LysSite (EPSV): Identifying Hydroxylysine Sites in Protein Using Statistical Formulation by Extracting Enhanced Position and Sequence Variant Feature Technique. *Current Genomics*. 2020 Nov 1;21(7):536-45.
- A new approach for the enumeration of components of digraphs over quadratic Maps. *Journal of Prime Research in Mathematics* 16(2):56-66.



- A Paradigmatic Approach to Investigate Restricted Totient Graphs and their Indices. International Journal of Mathematics and Computer Science 16(2021), no. 2, 793–801.
- Muhammad Tahir, Aziz Ullah Awan, Hamood ur Rehman, Optical solitons to Kundu–Eckhaus equation in birefringent fibers without four-wave mixing, Optik, 199 (2019) 163297.
- Muhammad Tahir, Aziz Ullah Awan, Analytical solitons with the Biswas-Milovic equation in the presence of spatio-temporal dispersion in non-Kerr law media, European Physical Journal Plus, 134 (2019) 464.
- M. Tahir, A. U. Awan, The study of complexitons and periodic solitary wave solutions with fifth order KdV equation in (2+1)-dimensions, Modern Physics Letters B, 33 (2019) 1950411 (13 pages).
- Takasar Hussain, Muhammad Ozair, Kazeem Oare Okosun, Muhammad Ishfaq, Aziz Ullah Awan, Adnan Aslam, Dynamics of swine influenza model with optimal control, Advances in Difference Equations, (2019) 2019:508 <https://doi.org/10.1186/s13662-019-2434-4>.
- Muhammad Tahir, Aziz Ullah Awan, Optical singular and dark solitons with Biswas-Arshed model by modified simple equation method, Optik, 202 (2020) 163523.
- Muhammad Danial Hisham, Aziz Ullah Awan, Nehad Ali Shah, Iskander Tlili, Unsteady two-dimensional flow of pseudo-blood fluid in an arterial duct carrying stenosis, Physica A, 550 (2020) 124126. <https://doi.org/10.1016/j.physa.2019.124126>.
- Muhammad Tahir, Aziz Ullah Awan, Optical travelling wave solutions for the Biswas–Arshed model in Kerr and non-Kerr law media, Pramana Journal of Physics, (2020) 94:29. <https://doi.org/10.1007/s12043-019-1888-y>.
- Muhammad Ozair, Takasar Hussain, Aziz Ullah Awan, Adnan Aslam, Riaz Ahmad Khan, Farhad Ali, Fatima Tasneem, Bio-inspired analytical heuristics to study pine wilt disease model, Scientific Reports, 10 (2020) 3534.
- Aziz Ullah Awan, Mukarram Ali, Kashif Ali Abro, Electroosmotic slip flow of Oldroyd-B fluid between two plates with non-singular kernel, Journal of Computational and Applied Mathematics, 376 (2020) 112885.
- Muhammad Tahir, Aziz Ullah Awan, Mohamed S. Osman, Dumitru Baleanu, Maysaa M. Alqurashi, Abundant periodic wave solutions for fifth-order Sawada-Kotera equations, Results in Physics, 17 (2020) 103105.
- Muhammad Tahir, Aziz Ullah Awan, Optical dark and singular solitons to the Biswas-Arshed equation in birefringent fibers without four-wave mixing, Optik, 207 (2020) 164421.
- Qasim Ali, Samia Riaz, Aziz Ullah Awan, Free convection MHD flow of viscous fluid by means of damped shear and thermal flux in a vertical circular tube, Physica Scripta, 95 (2020) 095212.



- J. Romero, A. U. Awan, A. Sharif, T. Hussain, M. Ozair, A. Aslam, F. Ali, Analysis of a mathematical model for the pine wilt disease using a graph theoretic approach, *Applied Sciences*, 22(2020) 189-204.
- Qasim Ali, Samia Riaz, Aziz Ullah Awan, Kashif Ali Abro, Thermal investigation for electrified convection flow of Newtonian fluid subjected to damped thermal flux on a permeable medium, *Physica Scripta*, 95 (2020) 115003.
- Aziz Ullah Awan, Muhammad Tahir, Hamood Ur Rehman, Singular and bright singular combo optical solitons in birefringent to the Biswas–Arshed equation, *Optik*, 210 (2020) 164489.
- Aziz Ullah Awan, Sana Abid, Naeem Ullah, Sohail Nadeem, Magnetohydrodynamic oblique stagnation point flow of second grade fluid over an oscillatory stretching surface, *Results in Physics*, 18 (2020), 103233.
- Inverse of the adjacency matrices and strong anti-reciprocal eigenvalue property: S. Hameed, U. Ahmad. *Linear and Multilinear Algebra*. DOI: 10.1080/ 03081087.2020. 1812495 (Taylor & Francis Group).
- Locating-Total Domination Number of Cacti Graphs: J. Wei , U. Ahmad, S. Hameed and J. Hanif. *Mathematical Problems in Engineering*. 2020 (2020) Article ID6197065, 10 pages, <https://doi.org/10.1155/2020/6197065> (Hindawi).
- Representation of Competitions by Complex Neutrosophic Information : S. Siddique, U. Ahmad, W. Salam, M. Akram, F. Smarandache. *Journal of Intelligent & Fuzzy Systems*, Pre-press, pp. 1-17, 2020 (IOS press).
- A study on generalized graphs representations of complex neutrosophic information : Saba Siddique, Uzma Ahmad and M. Akram. *J. Appl. Math. Comput.* (2020). <https://doi.org/10.1007/s12190-020-01400-0> (Springer).
- Class of weighted graphs with strong anti-reciprocal eigenvalue property: U. Ahmad, S. Hameed and S. Jabeen. *Linear and Multilinear Algebra*, 2020, 68(6), 1129-1139(Taylor & Francis Group).
- Combinatorial Properties of Power Graphs of Finite Groups of Prime Order Elements: U. Ahmad, M. Arooj. *Communications in Algebra*. 48(2020) 708-716. (Taylor & Francis Group)
- M. Riaz, N. Cagman, I. Zareef and M. Aslam, N-soft topology and its applications to multi-criteria group decision making, *Journal of Intelligent & Fuzzy Systems* 36(6)(2019), 6521-6536. DOI:10.3233/JIFS-182919.
- M.Saeed, M.Saqlain and M Riaz, Application of Generalized Fuzzy TOPSIS in Decision Making for Neutrosophic Soft Set to Predict the Champion of FIFA 2018: A Mathematical Analysis, *Punjab University Journal of Mathematics*, 51(8)(2019), 141-156.
- M. Riaz and S. T. Tehrim, Multi-Attribute Group Decision Making Based on Cubic Bipolar Fuzzy Information using Averaging Aggregation Operators, *Journal of Intelligent & Fuzzy Systems*, 37(2)(2019), 2473-2494.
- S. T. Tehrim and M. Riaz, A novel extension of TOPSIS to MCGDM with Bipolar Neutrosophic soft topology, *Journal of Intelligent & Fuzzy Systems*, 37(4)(2019), 5531-5549.



- M. Riaz and S. T. Tehrim, Bipolar Fuzzy Soft Mappings with Application to Bipolar Disorders, *International Journal of Biomathematics*, 12(7) (2019), 1-31.
- M. Riaz and M. R. Hashmi, MAGDM for agribusiness in the environment of various cubic m-polar fuzzy averaging aggregation operators, *Journal of Intelligent & Fuzzy Systems*, 37(3),(2019), 3671-3691, (2019).
- M. Riaz and M. R. Hashmi, Linear Diophantine Fuzzy Set and its Applications towards Multi-Attribute Decision Making Problems, *Journal of Intelligent & Fuzzy Systems*, 37(4) (2019), 5417-5439.
- K. Naeem, M. Riaz, X.D. Peng and D. Afzal, Pythagorean Fuzzy Soft MCGDM Methods Based on TOPSIS, VIKOR and Aggregation Operators, *Journal of Intelligent & Fuzzy Systems*, 37(5)(2019), 6937-6957.
- K. Naeem, M. Riaz, and Deeba Afzal, Pythagorean m-polar Fuzzy Sets and TOPSIS method for the Selection of Advertisement Mode, *Journal of Intelligent & Fuzzy Systems*, 37(6)(2019), 8441-8458. DOI: 10.3233/JIFS-191087. Dated 23-12-2019, W-Category, International, JCR-SCIE Impact Factor 1.851, ISSN 1064-1246.
- M. Riaz and M. R. Hashmi, Soft Rough Pythagorean m-Polar Fuzzy Sets and Pythagorean m-Polar Fuzzy Soft Rough Sets with Application to Decision-Making, *Computational and Applied Mathematics*, 39(1) (2020), 1-36. DOI: 10.1007/s40314-019-0989-z. Published online Dated 06-11-2019. ISSN 2238-3603, JCR-SCIE Impact Factor 1.360.
- M. R. Hashmi, M. Riaz and F. Smarandache, m-polar Neutrosophic Topology with Applications to Multi-Criteria Decision-Making in Medical Diagnosis and Clustering Analysis, *International Journal of Fuzzy Systems*, 22(1)(2020), 273-292.
- M. R. Hashmi and M. Riaz, A Novel Approach to Censuses Process by using Pythagorean m-polar Fuzzy Dombi's Aggregation Operators, *Journal of Intelligent & Fuzzy Systems*, 38(2)(2020), 1977-1995.
- M. Riaz, I. Nawaz and M. Sohail, Novel Concepts of Soft Multi Rough Sets with MCGDM for Selection of Humanoid Robot, *Punjab University Journal of Mathematics*, 52(2)(2020), 111-137. Dated: 12-02-2020. International, ISSN 1016-2526.
- M. Riaz, K. Naeem and D. Afzal, Pythagorean m-polar Fuzzy Soft Sets with TOPSIS Method for MCGDM, *Punjab University Journal of Mathematics*, 52(3)(2020), 21-46.
- M. Riaz, K. Naeem, I. Zareef and D. Afzal, Neutrosophic N-soft sets with TOPSIS method for multiple attribute decision making, *Neutrosophic Sets and Systems*, 32(2020), 146-170.
- Muhammad Saqlain, Muhammad Naveed Jafar and Muhammad Riaz, A New Approach of Neutrosophic Soft Set with Generalized Fuzzy TOPSIS in Application of Smart Phone Selection, *Neutrosophic Sets and Systems*, 32(2020), 307-316.
- M. Riaz, W. Salabun, H. M. A. Farid, N. Ali and J. Watrobski, A robust q-rung orthopair fuzzy information aggregation using Einstein operations with application to sustainable energy planning decision management, *Energies*, 13(9)(2020), 1-40.



- M. Riaz, B. Davvaz, A. Fakhar and A. Firdous, Hesitant fuzzy soft topology and its applications to multi-attribute group decision-making, *Soft Computing*, 24(21)(2020), 16269-16289.
- M. Riaz and S. T. Tehrim, Cubic bipolar fuzzy set with application to multi-criteria group decision making using geometric aggregation operators, *Soft Computing*, 24(21)(2020), 16111-16133.
- K. Naeem, M. Riaz, and Deeba Afzal, Fuzzy neutrosophic soft σ -algebra and fuzzy neutrosophic soft measure with applications, *Journal of Intelligent & Fuzzy Systems*, (2020), DOI: 10.3233/JIFS-191062.
- M. Riaz, D. Pamucar, H. M. A. Farid and M. R. Hashmi, q-Rung orthopair fuzzy prioritized aggregation operators and their application towards green supplier chain management, *Symmetry*, (2020), 12, 976; doi:10.3390/sym12060976. Dated:08-06-2020. JCR-SCIE Impact Factor 2.645.
- M. Riaz and S. T. Tehrim, A robust extension of VIKOR method for bipolar fuzzy sets using connection numbers of SPA theory based metric spaces, *Artificial Intelligence Review*, (2020), DOI: 10.1007/s10462-020-09859-w.
- M. Riaz, H. M. A. Farid, H. Kalsoom, D. Pamucar and Y. M. Chu, A Robust q-rung orthopair fuzzy Einstein prioritized aggregation operators with application towards MCGDM, *Symmetry*, (2020).
- M. Riaz, F. Citak, N. Wali and A. Mushtaq, Roughness and fuzziness associated with soft multisets and their application to MADM, *Journal of New Theory*, 31 (2020), 1-19.
- M. Riaz, K. Naeem, X. D. Peng and Deeba Afzal, Pythagorean fuzzy multisets and their applications to therapeutic analysis and pattern recognition, *Punjab University Journal of Mathematics*, 52(4)(2020), 15-40.
- M. Saeed, M. R. Ahmad, M. Saqlain and M. Riaz, Rudiments of N-framed soft sets, *Punjab University Journal of Mathematics*, 52(5)(2020), 15-30.
- M. Riaz, F. Karaaslan, H. M. A. Farid and M. R. Hashmi, Some q-rung orthopair fuzzy hybrid aggregation operators and TOPSIS method for multi-attribute decision-making, *Journal of Intelligent & Fuzzy Systems*, 39(1)(2020), 1227-1241.
- M. Riaz, M. R. Hashmi, H. Kalsoom, D. Pamucar and Yu-Ming Chu, Linear Diophantine Fuzzy Soft Rough Sets for the Selection of Sustainable Material Handling Equipment, *Symmetry*, 12(8), 1215.
- M. R. Hashmi, M. Riaz and F. Smarandache, m-polar Neutrosophic Generalized Weighted and m-polar Neutrosophic Generalized Einstein Weighted Aggregation Operators to Diagnose Coronavirus (COVID-19), *Journal of Intelligent & Fuzzy Systems*, (2020), DOI: 10.3233/JIFS-200761.
- M. Riaz, A. Razzaq, H. Kalsoom, D. Pamucar, H.M.A. Farid and Yu-Ming Chu, q-Rung Orthopair Fuzzy Geometric Aggregation Operators Based on Generalized and Group-Generalized Parameters with Application to Water Loss Management, *Symmetry*, 12(8)(2020), 1236.



- M. Riaz, F. Smarandache, F. Karaaslan, M. R. Hashmi and I. Nawaz, Neutrosophic Soft Rough Topology with Applications to Multi-Criteria Group Decision Making, 35(2020), 177-187.
- M. T. Hamid, M. Riaz and D. Afzal, Novel MCGDM with q-rung orthopair fuzzy soft sets and TOPSIS approach under q-Rung orthopair fuzzy soft topology, Journal of Intelligent & Fuzzy Systems, (2020), DOI: 10.3233/JIFS-192195.
- S. T. Tehrim and M. Riaz, An Interval-Valued Bipolar Fuzzy Linguistic VIKOR Method using Connection Numbers of SPA Theory and Its Application to Decision Support System, Journal of Intelligent & Fuzzy Systems, (2020), DOI: 10.3233/JIFS-200038.
- K. Naeem, M. Riaz, X. D. Peng and D. Afzal, Pythagorean m-polar Fuzzy Topology with TOPSIS Approach in Exploring Most Effectual Method for Curing from COVID-19, International Journal of Biomathematics, (2020), DOI: 10.1142/S1793524520500758
- M. Riaz, K. Naeem and D. Afzal, A similarity measure under Pythagorean fuzzy soft environment with applications, Computational and Applied Mathematics (2020) 39:269.
- M. Riaz, N. Cagman, N. Wali and A. Mushtaq, Certain Properties of Soft multi-set topology with applications in multi-criteria decision making, Decision Making Applications in Management and Engineering, 3(2)(2020), 70-96.
- M. Riaz, M. R. Hashmi, m-Polar Neutrosophic Soft Mapping with Application to Multiple Personality Disorder and its Associated Mental Disorders, Artificial Intelligence review, DOI: 10.1007/s10462-020-09912-8.
- M. Riaz and S. T. Tehrim, On Bipolar Fuzzy Soft Topology with Decision-Making, Soft Computing, (2020). DOI: 10.1007/s00500-020-05342-4.
- Saima Arshed, Anjan Biswas, Mehmet Ekici, Salam Khan, Qin Zhou, Seithuti P. Moshokoa, Mohanad Alfiras, Milivoj Belic, Solitons in nonlinear directional couplers with optical metamaterials by $\exp(-\Phi(\xi))$ -expansion, Optik - International Journal for Light and Electron Optics 179 (2019) 443–462.
- Saima Arshed, Anjan Biswas, Mehmet Ekici, Salam Khan, Qin Zhou, Seithuti P. Moshokoa, Mohanad Alfiras, Milivoj Belic, Solitons in nonlinear directional couplers with optical metamaterials by $\exp(-\Phi(\xi))$ -expansion, Optik - International Journal for Light and Electron Optics 179 (2019) 443–462.
- Saima Arshed, Anjan Biswas, Padmaja Guggilla, Ali Saleh Alshomrani, Optical solitons for Radhakrishnan–Kundu–Lakshmanan equation with full nonlinearity, Physics Letters A 384 (26) (2020) 126191.
- Saima Arshed, New soliton solutions to the perturbed nonlinear Schrödinger equation by $\exp(-\Phi(\xi))$ -expansion method, Optik - International Journal for Light and Electron Optics 220(2020) 165123.
- Saima Arshed, Anjan Biswas, Abdullah Kamis Alzahrani, Milivoj R. Belic, Solitons in nonlinear directional couplers with optical metamaterials by first integral method, Optik - International Journal for Light and Electron Optics 218 (2020) 165208.



- Nauman Raza, Aly R. Seadawy, Adil Jhangeer, Asma Rashid Butt, Saima Arshed, Dynamical behavior of micro-structured solids with conformable time fractional strain wave equation, *Physics Letters A*, 384(27) (2020) 126683.
- Nauman Raza, Saima Arshed, Chiral bright and dark soliton solutions of Schrödinger's equation in $(1 + 2)$ -dimensions, *Ain Shams Engineering Journal*, 11(4) 2020, 1237-1241.
- Saima Arshed, Aqsa Arif, Soliton solutions of higher-order nonlinear schrödinger equation (NLSE) and nonlinear kudryashov's equation, *Optik- International Journal for Light and Electron Optics*, 209(2020) 164588.
- Saima Arshed, Nauman Raza, Optical solitons perturbation of Fokas-Lenells equation with full nonlinearity and dual dispersion, *Chinese Journal of Physics*, 63(2020) 314-324.
- Anupma Bansal, Anjan Biswas, Qin Zhou, Saima Arshed, Abdullah Kamis Alzahrani, Milivoj R. Belic, Optical solitons with Chen–Lee–Liu equation by Lie symmetry, *Physics Letters A*, 384(10), (2020) 126202.
- H M Srivastava, D Baleanu, J A T Machado , M S Osman ,H Rezazadeh, S Arshed, H Günerhan, Traveling wave solutions to nonlinear directional couplers by modified Kudryashov method, *Physica Scripta*. 95 (2020) 075217 14 pages.
- Nauman Raza, Saima Arshed and Ahmad Javid, Optical solitons and stability analysis for the generalized second-order nonlinear Schrödinger equation in an optical fiber *International Journal of Nonlinear Sciences and Numerical Simulation* 21 (7-8) (2020) 1-9.
- Nauman Raza, Adil Jhangeer , Saima Arshed , Asma Rashid Butt , Yu-Ming Chu, Dynamical analysis and phase portraits of two-mode waves in different media, *Results in Physics* 19 (2020) 103650.
- A Legendre-homotopy method for the solutions of higher order boundary value problems: Maasoomah Sadaf and Ghazala Akram, *J. King Saud Univ. Sci.* 32(2020)537-543 (Elsevier).
- Inverse of the adjacency matrices and strong anti-reciprocal eigenvalue property: S. Hameed, U. Ahmad. *Linear and Multilinear Algebra*. DOI: 10.1080/03081087.2020.1812495 (Taylor & Francis Group)
- Locating-Total Domination Number of Cacti Graphs: J. Wei , U. Ahmad, S. Hameed and J. Hanif. *Mathematical Problems in Engineering*. 2020 (2020) Article ID6197065, 10 pages, <https://doi.org/10.1155/2020/6197065> (Hindawi).
- M-polynomial and topological indices of zigzag edge coronoid fused by starphene, Afzal, F., Hussain, S., Afzal, D., & Hameed,.*Open Chemistry*, 18(1), 1362-1369.
- Conformally Flat Polytropes in $f(R)$ Gravity: M.Z. Bhatti and Z. Tariq, *European Physical Journal Plus*, 134(2019)521 (Springer).
- Stability Analysis of Neutron Stars in Palatini $f(R,T)$ Gravity: M.Z. Bhatti, Z. Yousaf and Zarnoor, *General Relativity and Gravitation* 51(2019)144 (Springer).
- Existence of Dynamical Wormholes in $f(R)$ Gravity: Z. Yousaf, A. Ikram, M. Ilyas and M.Z. Bhatti, *Canadian Journal of Physics*, 98(2020)474 (NRS Research Press).



- Charged Gravastars with Cylindrical Spacetime: M.Z. Bhatti, Modern Physics Letters A 33(2020)2050069 (World Scientific).
- Spherical Collapse with Heat Dissipation in $f(R, T, R_{\mu\nu} T^{\mu\nu})$ Gravity: M.Z. Bhatti, Z. Yousaf and M. Nawaz, International Journal of Geometric Methods in Modern Physics 17(2020)2050017 (World Scientific).
- Electromagnetic Effects on Polytropes in $f(R)$ Gravity: M.Z. Bhatti and Z. Tariq, Physics of the Dark Universe, 28(2020)100482 (Elsevier).
- Stability of Self-Gravitating Anisotropic Fluids in $f(R, T)$ Gravity: M.Z. Bhatti, Z. Yousaf and M. Yousaf, Physics of the Dark Universe, 28(2020)100501 (Elsevier).
- Gravastars in $f(R, T, R_{\mu\nu} T^{\mu\nu})$ Gravity: Z. Yousaf, M. Z. Bhatti and H. Asad, Physics of the Dark Universe, 28(2020)100527 (Elsevier).
- Study of Static Charged Spherical Structure in $f(R, T, Q)$ Gravity: Z. Yousaf, M.Z. Bhatti and T. Naseer, European Physical Journal Plus, 135(2020)323 (Springer).
- New Definition of Complexity Factor in $f(R, T, R_{\mu\nu} T^{\mu\nu})$ Gravity: Z. Yousaf, M.Z. Bhatti and T. Naseer, Physics of the Dark Universe, 28(2020)535 (Elsevier).
- Gravastars in $f(R, G)$ Gravity: M.Z. Bhatti, Z. Yousaf and A. Rehman, Physics of the Dark Universe, 29(2020)100561 (Elsevier).
- Complexity for Self-gravitating Fluid Distributions in $f(G, T)$ gravity: Z. Yousaf, M.Z. Bhatti and K. Hassan, European Physical Journal Plus, 135(2020)397 (Springer).
- The measure of Complexity in Charged Celestial Bodies in $f(R, T, R_{\mu\nu} T^{\mu\nu})$ Gravity: Z. Yousaf, M.Z. Bhatti, T. Naseer and I. Ahmad, Physics of the Dark Universe, 29(2020)100581 (Elsevier).
- Dynamical Analysis of Self-gravitating Stars in Modified Gauss-Bonnet Gravity: M.Z. Bhatti, Z. Yousaf and A. Khadim, Physical Review D, 101(2020)104029 (American Physical Society).
- Measure of Complexity for Dynamical Self-gravitating Structures: Z. Yousaf, M.Z. Bhatti and T. Naseer, International Journal of Modern Physics D, 29(2020)2050061 (World Scientific).
- Effects of Electromagnetic Field on the Structure of Massive Compact Objects: M.Z. Bhatti and Z. Tariq, Physics of the Dark Universe, 29(2020)100600 (Elsevier).
- Influence of Modification of Gravity on the Complexity Factor of Static Spherical Structures: Z. Yousaf, M. Y. Khlopov, M.Z. Bhatti and T. Naseer, Monthly Notices of the Royal Astronomical Society, 495(2020)4334 (Oxford University Press).
- Evolution of the Charged Dynamical Radiating Spherical Structures: Z. Yousaf, M.Z. Bhatti and T. Naseer, Annals of Physics, 420(2020)168267 (Elsevier).
- Hussain, M. Z., Hussain, M. & Yameen, Z. (2018), A C^2 -continuous rational quantic interpolation scheme for curve data with shape control, *Journal of the National Science Foundation of Sri Lanka*, Vol. 46(3), 341-354.
- Abbas, S. Hussain, M. Z. & Irshad, M. (2018), Image interpolation by rational Ball cubic B-spline representation and genetic algorithm, *Alexandria Engineering Journal*, Vol. 57, 931-937.



- Sarfraz, M. Samreen, S. & Hussain, M. Z. (2018), A quadratic trigonometric weighted spline with local support basis functions, *Alexandria Engineering Journal*, Vol. 57, 1041-1049.
- Sarfraz, M. Samreen, S. & Hussain, M. Z. (2018), Modeling curves by a quadratic trigonometric B-spline with point shape control, July 11-13, Baku, Azerbaijan.
- *Pilgrim Dark Energy in $f(G,T)$ Gravity*: M. Sharif and Saadia Saba, *Mod. Phys. Lett. A* 33(2018)1850182 (World Scientific).
- *Complexity Factor for Cylindrical System*: M. Sharif and Iqra Ijaz Butt, *Eur. Phys. J. C* 78(2018)850 (Springer).
- *Anisotropic Quark Stars in $f(R,T)$ Gravity*: M. Sharif and Arfa Waseem, *Eur. Phys. J. C* 78(2018)868 (Springer).
- *Gravitational Decoupled Anisotropic Solutions in $f(\mathcal{G})$ Gravity*: M. Sharif and Saadia Saba, *Eur. Phys. J. C* 78(2018)921 (Springer).
- *On the Stability of Einstein Universe in $f(R,T,R_{\mu\nu}T^{\mu\nu})$ Gravity*: M. Sharif and Arfa Waseem, *Mod. Phys. Lett. A* 33(2018)1850216 (World Scientific).
- *Viable Wormhole Solutions and Noether Symmetry in $f(R,T)$ Gravity*: M. Sharif and Iqra Nawazish, *Annals Phys.* 400(2018)37-63 (Elsevier).
- *Effects of Tilted Congruence on Spherical Compact Stars*: M. Sharif and Sobia Sadiq, *Chin. J. Phys.* 56(2018)2984-2991 (Elsevier).
- *Models of Charged Self-Gravitating Source in $f(R,T)$ Theory*: M. Sharif and Aisha Siddiqua, *Int. J. Mod. Phys. D* 27(2018)1950005 (World Scientific).
- *Role of $\sigma R^2 + \gamma R_{\mu\nu}T^{\mu\nu}$ Model on Anisotropic Polytropes*: M. Sharif and Arfa Waseem, *Int. J. Mod. Phys. D* 27(2018)1950007 (World Scientific).
- *Galactic Halo Traversable Wormhole Solutions in $f(\mathcal{G},T)$ Gravity*: M. Sharif and yesha Ikram, *Int. J. Mod. Phys. D* 27(2018)1950009 (World Scientific).
- Dynamics of Cylindrical Collapse in $f(\mathcal{G},T)$ Gravity: M. Sharif and M. Zeeshan Gul, *Chin. J. Phys.* 57(2018)329-337 (Elsevier).
- Akram, M, Shahzadi, S. and Smarandache, F., Multi-attribute decision-making method based on neutrosophic soft rough information, *Axioms*, 2018, 7(1), 19; doi:10.3390/axioms7010019.
- Akram, M; Malik, H.M.; Shahzadi, S.; Smarandache, F., Neutrosophic soft rough graphs with application, *Axioms*, 2018, 7(1), 14; doi:10.3390/axioms7010014.
- Akram, M; Shahzadi, G., Hypergraphs in m-polar fuzzy environment, *Mathematics*, 2018, 6(2), 28; doi:10.3390/math6020028.
- Akram, M and M. Sitara, Interval-valued neutrosophic graph structures, *Punjab University Journal of Mathematics*, 50(1)(2018), 35-58.
- Ishfaq, N.; Sayed, S.; Akram, M; Smarandache, F., Notions of rough neutrosophic digraphs, *Mathematics*, 2018, 6(2), 18; doi:10.3390/math6020018.
- Sayed, S.; Ishfaq, N.; Akram, M; Smarandache, F., Rough neutrosophic digraphs with application, *Axioms*, 2018, 7(1), 5; doi:10.3390/axioms7010005.



- Zaffer Elahi, Ghazala Akram and Shahid S. Siddiqi Arab Journal of Basic and Applied Sciences, 26(1), 23-29, 201 *Solution of damped generalized regularized long-wave equation using a modified homotopy analysis method* Ghazala Akram and Maasoomah Sadaf Indian Journal of Physics, 92(2): 191–196, 2018
- Study of Fractional Boundary Value Problem using Mittag-Leffler Function with Two Point Periodic Boundary Conditions Ghazala Akram and Fareeha Anjum International Journal of Applied and Computational Mathematics, 4:27, 1-13 2018
- *Analytical solution of the Korteweg–de Vries equation and microtubule equation using the first integral method* Ghazala Akram and Nadia Mahak Optical and Quantum Electronics, 50:145, 1-13, 2018
- Numerical solutions for solving special tenth order linear boundary value Problems using Legendre Galerkin method Zaffer Elahi, Ghazala Akram and Shahid S. Siddiqi Mathematical Sciences Letters, 7(1), 27–35, 2018
- A novel approach for solitary wave solutions of the generalized fractional Zakharov-Kuznetsov equation Fiza Batool and Ghazala Akram Indian Journal of Physics, 92(1), 111-119, 2018.
- A novel approach for solitary wave solutions of the generalized fractional Zakharov-Kuznetsov equation Fiza Batool and Ghazala Akram Indian Journal of Physics, 92(1), 111-119, 2018.
- Raza, N. “On soliton solutions of time fractional form of Sawada-Kotera equation” Nonlinear Dynamics (2018)
- Raza, N. “Optical dark and dark-singular soliton solutions of (1+2)-dimensional Chiral Nonlinear Schrodinger Equation” Waves in Random and Complex Media, (2018)
- Raza, N. “New exact periodic elliptic wave solutions for extended quantum Zakharov-Kuznetsov equation” Opt Quant Electron (2018)
- Raza, N. “New Optical Solitons in Nonlinear Negative-Index Materials with Bohm Potential” Indian Journal of Physics, doi.org/10.1007/s12648-018
- Raza, N. “Heat transfer analysis of Walters’-B fluid with Newtonian heating through an oscillating vertical plate by using Caputo-Fabrizio fractional derivative” Mechanics of Time Dependent Material (2018)
- Raza, N. “Singular and dark optical solitons to the well posed Lakshamanan-Porsezian-Daniel model” Optik 171, 120-129 (2018) Raza, N. “Exact solutions of nonlinear diffusive predator-prey system by new extension of Tanh method” Journal of Computational and Theoretical Nanoscience 15, 3195-3200 (2018)
- Raza, N. “dark and dark optical soliton solutions to the nonlinear Schrodinger’s equation with spation-temporal dispersion” Journal of Modern Optics 65, 1975-1982 (2018)
- Raza, N. “Analytical study on optical solitons in parity-time symmetric linear and nonlinear modulation lattices with non-kerr nonlinearities” Optik 173, 249-262 (2018) Raza, N. “New combo and dipole solitons in multiple-core coupler with dual dispersion” Optik 172, 150-155 (2018)



- Raza, N. "Optical dark and singular solitons to the Biswas–Milovic equation in nonlinear optics with spatio-temporal dispersion" *Optik* 158, 1049-1057 (2018)
- Raza, N. "Exact periodic and explicit solutions of the conformable time fractional Ginzburg Landau equation" *Opt Quant Electron* (2018) 50:154 doi.org/10.1007/s11082-018
- Raza, N. "New optical solitons of Tzitzeica type evolution equations using extended trial approach" *Opt Quant Electron* (2018) 50:141 doi.org/10.1007/s11082-018
- Raza, N. "Exact periodic and explicit solutions of higher dimensional equations with fractional temporal evolution" *OPTIK* 156, 628-634 (2018)
- Raza, N. "A new hybrid technique for the solution of a Maxwell fluid with fractional derivatives in a circular pipe" *Journal of Applied Environmental and Biological Sciences*, 7, 195-206 (2018)
- Raza, N. "Analytical soliton solutions of Biswas–Milovic equation in Kerr and non-Kerr law media" *OPTIK* 157, 997-1002 (2018)
- Raza, N. "Analysis of blood flow with nanoparticles induced by uniform magnetic field through a circular cylinder with fractional Caputo derivatives" *Journal of Magnetism and Magnetic Materials* 446, 28-36 (2018) ISI (IF=2.63).
- Raza, N. "On solitons: the biomolecular nonlinear transmission line models with constant and time variable coefficients" *Waves in Random and Complex Media*, 28, 553-569 (2018)
- Raza, N. "Flow of a second grade fluid with fractional derivatives due to a quadratic time dependent shear stress" *Alexandria Engineering Journal*, 57, 1963-1969 (2018)
- Raza, N. "Optical soliton solutions of the cubic-quintic nonlinear Schrödinger's equation including an anticubic term" *Journal of Modern Optics* 65, 1431-1436 (2018)
- Muhammad Danial Hisham, Abdul Rauf, Dumitru Veiru, Aziz Ullah Awan, Analytical and semi-analytical solutions to flows of two immiscible Maxwell fluids between moving plates, *Chinese Journal of Physics*, 56 (2018) 3020-3032. (IF=2.544)
- M.Z. Bhatti, Z. Yousaf and M. Ilyas: "Existence of Wormhole Solutions and Energy Conditions in (R,T) Gravity" *Journal of Astrophysics and Astronomy*, 39(2018)69 (Springer).
- Hussain, M. Z., Shakeel, A. & Hussain, M. (2019), Approximation of Planer curves, *Turkish Journal of Electrical Engineering and Computer Sciences*, Vol. 27, 723-737.
- Saleem, S., Aziz, I. & Hussain, M. Z. (2019), Numerical solution of vibration equation using Haar wavelet, *Punjab University Journal of Mathematics*, Vol. 51(3), 89-100.
- Samreen, S., Sarfraz, & Hussain, M. Z. (2019), A quadratic trigonometric spline for curve modeling, *Plos One*, <https://doi.org/10.1371/journal.pone.0208015>, January 10.
- Tariq, Z., Ibraheem, F., Hussain, M. Z., & Sarfraz, M. (2019), Monotone data modeling using rational functions *Turkish Journal of Electrical Engineering and Computer Sciences*, Vol. 27, 2331-2343.
- Hussain, M., Hussain, M. Z., & Saeed, I. (2019), Convexity-preserving scattered data interpolation scheme using side-vertex method, *International Journal of Applied and Computational Mathematics*, <https://doi.org/10.1007/s40819-019-0636-9>



- Irshad, M., Azam, M., Sarfarz, M. & Hussain, M.Z. (2019), Reverse engineering of generic shapes using quadratic spline and genetic algorithm, *Advances in Computer Vision: Proceedings of 2019 Computer Vision, Las Vegas, USA, May 2-3*, 678-686.
- Hussain, M. Z., Khalid, M., Irshad, M. & Sarfraz, M. (2019), Spline functions and genetic algorithm for reverse engineering of symmetric 3D models, *Proc. IEEE 23rd International Conference on Information Visualization Part II, July 16-19, Adelaide, Australia*, 134-140.
- Saleem, S., Aziz, I. & Hussain, M. Z. (2019), A simple algorithm for numerical solution of nonlinear parabolic partial differential equations, *Engineering with Computers*, <https://doi.org/10.1007/s00366-019-0076-z>.
- Arooj, T., Hussain, F. & Hussain, M. Z. (2019), Scientific data visualization via Hybrid model based on fractal spline interpolation, *Punjab University Journal of Mathematics*, Vol. 51(9), 123-136.
- *Tsallis Holographic Dark Energy in $f(G,T)$ Gravity*:M. Sharif and Saadia Saba, *Symmetry* 11(2019)92 (MDPI).
- *Charged Compact Objects in $f(R,T)$ Gravity*:M. Sharif and Arfa Waseem, *Int. J. Mod. Phys. D* 28(2019)1950033 (World Scientific).
- *Dynamics of Cylindrical Collapse in $f(\mathcal{G},T)$ Gravity*:M. Sharif and M. Zeeshan Gul, *Chin. J. Phys.* 57(2018)329-337 (Elsevier).
- *Collapse and Expansion of Scalar Thin-Shell for a Class of Black Holes*:M. Sharif and Faisal Javed, *Int. J. Mod. Phys. D* 28(2019)1950046 (World Scientific).
- *Study of Tilted Anisotropic Polytropes*:M. Sharif and Sobia Sadiq, *Int. J. Mod. Phys. D* 28(2019)1950051 (World Scientific).
- *Dynamics of Perfect Fluid Collapse in $f(G,T)$ Gravity*:M. Sharif and M. Zeeshan Gul, *Int. J. Mod. Phys. D* 28(2019)1950054 (World Scientific).
- *Models of Collapsing and Expanding Cylindrical Source in $f(R,T)$ Theory*:M. Sharif and Aisha Siddiq, *Ad. High Energy Phys.* 2019(2019)8702795 (Hindawi).
- *Ghost Dark Energy Model in $f(G)$ Gravity*:M. Sharif and Saadia Saba, *Chin. J. Phys.* 58(2019)202-211 (Elsevier).
- *Cosmic Evolution of Holographic Dark Energy in $f(\mathcal{G},T)$ Gravity*:M. Sharif and Ayesha Ikram, *Ad. High Energy Phys.* 2019(2019)1873804 (Hindawi).
- *Study of Cylindrical Polytropes with Cosmological Constant*:M. Sharif and Sobia Sadiq, *J. Exp. Theor. Phys.* 128(2019)423-431 (Springer).
- *A Study of Pilgrim Dark Energy Model in Brans-Dicke Theory*:M. Sharif and S.A.A Shah, *Mod. Phys. Lett. A* 34(2019)1950083 (World Scientific).
- *Stability Analysis of Coupled Phantom and Tachyon Field Models in Nonlinear Electrodynamics*:M. Sharif and Qanita Ama-Tul-Mughani, *Int. J. Mod. Phys. D* 28(2019)1950076 (World Scientific).
- *Generalized Ghost Pilgrim Dark Energy in $f(G,T)$ Gravity*:M. Sharif and Saadia Saba, *Int. J. Mod. Phys. D* 28(2019)1950077 (World Scientific).



- *New Agegraphic Dark Energy in $f(G,T)$ Gravity*:Saadia Saba and M. Sharif, Chin. J. Phys. 59(2019)393-409 (Elsevier).
- *Gravitational Decoupled Charged Anisotropic Solutions in Modified Gauss-Bonnet Gravity*:M. Sharif and Saadia Saba, Chin. J. Phys. 59(2019)481-494 (Elsevier).
- *Anisotropic Spherical Solutions by Gravitational Decoupling in $f(R)$ Gravity*:M. Sharif and Arfa Waseem, Ann. Phys. 405(2019)14-28 (Elsevier).
- *Cosmography of Generalized Ghost Dark Energy Model in $f(G)$ Gravity*:M. Sharif and Saadia Saba, J. Exp. Theor. Phys. 128(2019)571-577 (Springer).
- *Dynamical Evolution of Scalar Shell for Rotating Regular Black Holes*:M. Sharif and Faisal Javed, Ann. Phys. 407(2019) 198-211 (Elsevier).
- *Stellar Evolution of Compact Stars in Matter-Curvature Coupling Gravity*:M. Sharif and Arfa Waseem, Prog. Theor. Exp. Phys. 2019(2019)053E02 (Oxford Univ. Press).
- *2+1-dimensional Gravitational Decoupled Anisotropic Solutions*:M. Sharif and Sobia Sadiq, Chin. J. Phys. 60(2019)279-289 (Elsevier).
- *Effects of Charge on Gravitational Decoupled Anisotropic Solutions in $f(R)$ Gravity*:M. Sharif and Arfa Waseem, Chin. J. Phys. 60(2019)426-439 (Elsevier).
- *Propagation of Polar Gravitational Waves in $f(R,T)$ Scenario*:M. Sharif and Aisha Siddiqua, Gen. Relativ. Gravit. 51(2019)74 (Springer).
- *Stability of the Universe Model Coupled with Phantom and Tachyon Fields*:M. Sharif and Saadia Mumtaz, Ad. High Energy Phys. 2019(2019)6582470 (Hindawi).
- *Dynamical Stability of Bulk Viscous Isotropic and Homogeneous Universe*:M. Sharif and Qanitah Ama-Tul-Mughani, Universe 05(2019)185 (MDPI).
- *Rotating Thin-Shell Wormholes with Scalar Field*:M. Sharif and Saadia Mumtaz, Mod. Phys. Lett. A 34(2019)1950206 (World Scientific).
- *Complexity Factor for Static Sphere in Self-interacting Brans-Dicke Gravity*:M. Sharif and Amal Majid, Chin. J. Phys. 61(2019)38-46 (Elsevier).
- *Viable Wormhole Solutions through Noether Symmetry in $f(\mathcal{G},T)$ Gravity*:M. Sharif and Shahid Hussain, Chin. J. Phys. 61(2019)194-211 (Elsevier).
- *Electromagnetic Effects on Complexity Factor for Static Cylindrical System*:M. Sharif and Iqra Ijaz Butt, Chin. J. Phys. 61(2019)238-247 (Elsevier).
- *Stability of Einstein-Power-Maxwell (2+1)-Dimensional Wormholes*:M. Sharif and Faisal Javed, Chin. J. Phys. 61(2019)262-271 (Elsevier).
- *Linearized Stability of Bardeen Anti-de Sitter Wormholes*:M. Sharif and Faisal Javed, Astrophys. Space Sci. 364(2019)179 (Springer).
- *Complexity Factors for Static Axial System in Self-interacting Brans-Dicke Gravity*:M. Sharif and Amal Majid, Int. J. Geom. Methd. Mod. Phys. 16(2019)1950174 (World Scientific).
- *Charged Gravastars with Conformal Motion in $f(R,T)$ Gravity*:M. Sharif and Arfa Waseem, Astrophys. Space Sci. 364(2019)189 (Springer).
- *Greybody Factor for a Rotating Bardeen Black Hole*:M. Sharif and Qanitah Ama-Tul-Mughani, Eur. Phys. J. Plus 134(2019)616 (Springer).



- *Inhomogeneous Perturbations and Stability Analysis of the Einstein Static Universe in $f(R,T)$ Gravity*: M. Sharif and Arfa Waseem, *Astrophys. Space Sci.* 364(2019)221 (Springer).
- *Study of (1+2)-dimensional Charged String Cloud with Minimal Geometric Deformation*: M. Sharif and Qanitah Ama-Tul-Mughani, *Int. J. Geom. Methd. Mod. Phys.* 16(2019) 1950187 (World Scientific).
- Akram, M, Adeel, A. and J. C. R. Alcantud, Group Decision-Making Methods Based on Hesitant tN-Soft Sets, *Expert Systems with Applications*, 115(2019),95-105.
- S. Nazam and Akram, M, Novel decision making approach based on hesitant fuzzy set and graph theory, *Computational and Applied Mathematics*, 38(7)(2019),1-26.
- Akram, M and Maham A., A Novel Trapezoidal Bipolar Fuzzy TOPSIS Method for Group Decision-Making, *Group Decision and Negotiation*, 28(3)(2019),565-584.
- Akram, M, N. Waseem and P. Liu, Novel Approach in Decision Making with m-Polar Fuzzy ELECTRE-I, *International Journal of Fuzzy Systems*, 21(4)(2019),1117-1129.
- Akram, M, H. Gulzar. K. P. Shum, Single-Valued Neutrosophic Lie Algebras, *Journal of Mathematical Research with Applications*, 39(2)(2019),141-152.
- A. Rehman, M. Hussain, A. Farooq and Akram, M, Consensus Based Multi-person Decision Making with Incomplete Fuzzy Preference Relations Using Product Transitivity, *Mathematics*, 7(2)(2019),185.
- Habib, A., Akram, M, M.; Farooq, q-Rung orthopair fuzzy competition graphs with application in the soil ecosystem, *Mathematics*, 7(1)(2019),91.
- Sitara, M.; Akram, M, M.; Y. Bhatti, Fuzzy Graph Structures with Application, *Mathematics*, 7(1)(2019),63.
- Akram, M. and Sitara, M., Certain fuzzy graph structures, *Journal of Applied Mathematics and Computing*, 61(1-2)(2019), 25-56.
- J. Zhan, Hafsa Masood and Akram, M, Novel decision-making algorithms based on intuitionistic fuzzy rough environment, *International Journal of Machine Learning and Cybernetics*, 10(6)(2019),1459-1485.
- Akram, M., D. Saleem and B. Davvaz, Energy of Double Dominating Bipolar Fuzzy Graphs, *Journal of Applied Mathematics and Computing*, 61(1-2)(2019),219-234.
- Akram, M. and Habib, A. q-Rung Picture Fuzzy Graphs: A Creative View on Regularity with Applications, *Journal of Applied Mathematics and Computing*, 61(1-2)(2019),235-280.
- Akram, M, Adeel, A. and J.C.R. Alcantud, Hesitant Fuzzy N-Soft Sets: A New Model with Applications in Decision-Making, *Journal of Intelligent & Fuzzy Systems*, 36(6)(2019), 6113-6127.
- Akram, M., G. Muhammad and T. Allahviranloo, Bipolar fuzzy linear system of equations, *Computational and Applied Mathematics*, 38(2019),69.
- Adeel, A., Akram, M, Ahmed, I.; Nazar, K, Novel m-Polar Fuzzy Linguistic ELECTRE-I Method for Group Decision-Making, *Symmetry* 2019,11(4),471.
- Akram, M, Habib, A.; Koam, A. N., A Novel Description on Edge-Regular q-Rung Picture Fuzzy Graphs with Application, *Symmetry* 2019, 11(4),489.



- Luqman, A., Akram, M; Koam, A. N, Anm-Polar Fuzzy Hypergraph Model of Gran-ular Computing, *Symmetry* 2019, 11(4),483.
- Luqman, A., Akram, M; Ahmad N. Al-Kenani, q-Rung Orthopair Fuzzy Hyper graphs with Applications, *Mathematics* 2019,7(3),260
- Akram, M, Gulzar, H. and Smarandache, F., Neutrosophic Soft Topological K-Algebras, *Neutrosophic Sets and Systems*, 25(2019),104-124..
- Akram, M, W. A. Dudek and F. Ilyas, Group decision making based on Pythagorean fuzzy TOPSIS method, *Int. J. Intelligent System*, 34(2019),1455-1475.
- Akram, M, Ali, G. and Alcantud, J. C. R., New decision-makinghy brid model: intuition istic fuzzy N-soft rough sets, *Soft Computing*, 23(20)(2019),9853-9868.
- Akram, M, N. Waseem, Similarity Measures for New Hybrid Models: mFSetsandmFSoftSets, *Punjab University Journal of Mathematics*, 51(6)(2019),115-130.
- Adeel, A., Akram, Mand A. N. A. Koam, Multi-Criteria Decision-Making under mHFELECTRE-Iand HmFELECTRE-I, *Energies*, 12(9)(2019).
- Akram, M, Ali, G. and Alcantud, J. C. R., Hybrid Multi-Attribute Decision-Making Model Based on (m,N)–Soft Rough Sets, *Journal of Intelligent and Fuzzy Systems*, 36(6)(2019), 6325-6342.
- Akram, M., F. Ilyas and A.B. Saeid, Certain Notions of Pythagorean Fuzzy Graphs, *Journal of Intelligent and Fuzzy Systems*, 36(6)(2019), 5857-5874.
- Akram, M., S. Naz, and B. Davvaz, Simplified Interval-Valued Pythagorean Fuzzy Graphs with Application, *Complex & Intelligent Systems*, 5(2)(2019), 229-253.
- Akram, M, J. M. Darand S. Naz, Certain Graphs under Pythagorean Fuzzy Environ-ment, *Complex & Intelligent Systems*, 5(2)(2019), 127-144.
- Zhan, J., Akram, Mand Sitara, M., Novel decision-making method based on bipolarneutrosophic information, *Soft Computing*, 23(20)(2019), 9955-9977.
- Akram, M, Adeel, A. and Al cantud, J. C. R., Multi-Criteria Group Decision-Making Usinganm-Polar Hesitant Fuzzy TOPSIS Approach, *Symmetry*, 11(6)(2019),795.
- Luqman, A., Akram, Mand Koam, A.N.A., Granulation of Hypernetwork Model sundertheq-Rung Picture Fuzzy Environment, *Mathematics*,7(6),496.
- Adeel, A., Akram, Mand Koam, A.N.A., Group Decision-Making Basedon m-Polar Fuzzy Linguistic TOPSIS Method, *Symmetry*, 11(6)(2019),735.
- Akram, M., J. M. Darand S. Naz, Pythagorean Dombi Fuzzy Graphs, *Complex & Intelligent Systems*, (2019). <https://doi.org/10.1007/s40747-019-0109-0>.
- Akram, Mand Maham A., Ranking of trapezoidal bipolar fuzzy information system based on total ordering, *Applied Mathematics E-Notes*, 19(2019), 292-309.
- Akram, Mand Adeel, A., TOPSIS approach for MAGDM based on interval-valued hesitant fuzzy N-Soft environment, *International Journal of Fuzzy Systems*, 21(3)(2019), 993-1009.
- Akram, M, H. Gulzar. K. P. Shum, Certain notions of single-valued neutrosophick-algebras, *Italian Journal of Pure and Applied Mathematics*, 42(2019)271-289.



- Akram, M, Ishfaq, N., Smarandache, F. and Broumi, S., Application of bipolar neutrosophic sets to incidence graphs, *Neutrosophic Sets and Systems*, 27(2019), 180-200.
- Akram, M., Naz, S., A Novel Decision-Making Approach under Complex Pythagorean Fuzzy Environment. *Math. Comput. Appl.*, 24(3)(2019), 73.
- Ali, G.; Akram, M., Koam, A. N. A.; Alcantud, J. C. R., Parameter Reduction of Bipolar Fuzzy Soft Sets with Their Decision-Making Algorithms, *Symmetry*, 11(8)(2019), 949.
- Akram, M., Muhammad, G.; Koam, A. N. A.; Hussain, N., Iterative Methods for Solving a System of Linear Equations in a Bipolar Fuzzy Environment. *Mathematics*, 7(8)(2019), 728.
- Akram, M., Naz, S.; Smarandache, F., Generalization of Maximizing Deviation and TOPSIS Method for MAD Min Simplified Neutrosophic Hesitant Fuzzy Environment. *Symmetry*, 11(8)(2019), 1058.
- Akram, M., W. A. Dudek and J. M. Dar, Pythagorean Dombi Fuzzy Aggregation Operators with Application in Multi-criteria Decision-making, *Int.J. Intelligent Systems* 34(2019), 3000-3019.
- Luqman, A., Akram, M. and Smarandache, F., Complex Neutrosophic Hypergraphs: New Social Network Models, *Algorithms*, 12(11)(2019), 234.
- Luqman, A., Akram, M. and Davvaz, B., q -rung orthopair fuzzy directed hypergraphs: A new model with applications, *Journal of Intelligent & Fuzzy Systems*, 37(3)(2019), 3777-3794.
- Akram, M., Habib, A. and B. Davvaz, Direct Sum of n Pythagorean Fuzzy Graphs with Application to Group Decision-Making, *Journal of Multiple-Valued Logic and Soft Computing*, 33(1-2)(2019), 75-115.
- Akram, M. and Adeel, A., Novel TOPSIS Method for Group Decision Making Based on Hesitant m -Polar Fuzzy Model, *Journal of Intelligent & Fuzzy Systems*, 37(6)(2019), 8077-8096.
- Shumaiza, Akram, M. and Ahmad N. Al-Kenani, Multiple-Attribute Decision Making ELECTRE II Method under Bipolar Fuzzy Model, *Algorithms*, 12(11)(2019), 226.
- Shumaiza, Akram, M., Ahmad N. Al-Kenani, Alcantud, J.C.R., Group Decision-Making Based on the VIKOR Method with Trapezoidal Bipolar Fuzzy Information, *Symmetry*, 11(10)(2019), 1313.
- Luqman, A.; Akram, M.; Al-Kenani, A.N.; Alcantud, J.C.R., A Study on Hypergraph Representations of Complex Fuzzy Information, *Symmetry*, 11(11)(2019), 1381.
- Luqman, A.; Akram, M. and F. Smarandache, Complex Neutrosophic Hypergraphs: New Social Network Models, *Algorithms*, 12(11)(2019), 234.
- Akram, M., G. Muhammad and N. Hussain, Bipolar fuzzy system of linear equations with polynomial parametric form, *Journal of Intelligent & Fuzzy Systems*, 37(6), 8275-8287.
- Shahzadi, G. and Akram, M., Hypergraphs Based on Pythagorean Fuzzy Soft Model, *Mathematical and Computational Applications*, 24(4)(2019), 100.
- Waseem, N.; Akram, M.; Alcantud, J.C.R., Multi-Attribute Decision-Making Based on m -Polar Fuzzy Hamacher Aggregation Operators. *Symmetry*, 11(12)(2019), 1498.



- Akram, M.; Mohsan Dar, J.; Shahzadi, S., Decision Making Approach under Pythagorean Dombi Fuzzy Graphs for Selection of Leading Textile Industry, *Mathematical and Computational Applications*, 24(4)(2019),102.
- Akram, M., D. Saleem and T.Allahviranloo, Linear system of equation sinm-polar fuzzy environment, *Journal of Intelligent & Fuzzy Systems*, 37(6)(2019), 8251-8266.
- Dr. Muhammad Aslam Malik, Publication Reformulated Zagreb Indices of Some Derived Graphs *Mathematics* 2227-7390 2019 Pg. 1-14 Vol. 7(4) 1.105.
- Dr. Muhammad Aslam Malik, Publication On the Minimal General Sum-Connectivity Index of Connected Graphs Without Pendant Vertices *IEEE Access* 2169-3536 2019 Pg. 136743-136751 Vol. 7. 4.098.
- Use of Bessel Polynomials for Solving Differential Difference Equations, Zaffer Elahi, Ghazala Akram and Shahid S. Siddiqi *Arab Journal of Basic and Applied Sciences*, 26(1), 23-29, 2019.
- Extension of rational sine-cosine and rational sinh-cosh techniques to extract solutions for the perturbed NLSE with Kerr law nonlinearity Nadia Mahak and Ghazala Akram *European Physical Journal Plus*, 134, 159, 2019.
- Exact solitary wave solutions by extended rational sine-cosine and extended rational sinh-cosh techniques Ghazala Akram and Nadia Mahak *Physica Scripta*, 94, 115212, 2019.
- Optical Solitons with full Nonlinearity for the Conformable Space-Time Fractional Fokas-Lenells Equation Naila Sajid and Ghazala Akram *Optik - International Journal for Light and Electron Optics*, 196, 1-13, Nov. 2019.
- Raza, N., Javid, A. and Osman, M.S. Multi-solitons of thermophoretic motion equation depicting wrinkle propagation in substrate-supported grapheme sheets, *Commun. Theor. Phys.* 79, 362-366 (2019).
- Raza, N., Afzal, U., Butt, A.R. and Rezazadeh, H. Optical solitons in nematic liquid crystals with Kerr and parabolic law nonlinearities, *Opt Quant Electron* (2019) 51:107 doi.org/10.1007/s11082-019-1813-0.
- Javaid, A., Raza, N., Zhou, Q. and Abdullah, M. New exact spatial and periodic-singular soliton solutions in nematic liquid crystals, *Opt Quant Electron* (2019) 51:147 doi.org/10.1007/s11082-019-1861-5.
- Raza, N. and Javid, A. Dynamics of optical solitons with Radhakrishnan-Kundu-Lakshmanan model via two reliable integration schemes, *Optik* 178, 557-566 (2019).
- Raza, N. and Zubair, A. Optical dark and singular solitons of generalized Nonlinear Schrodinger's equation with anti-cubic law of nonlinearity, *Modern Physics Letters B* 33, 1850427 1-10 (2019).
- Raza, N., Aslam, M.R. and Rezazadeh, H. Analytical study of resonant optical solitons with variable coefficients in Kerr and non-Kerr law media, *Opt Quant Electron* (2019) 51:59 doi.org/10.1007/s11082-019-1773-4.
- Raza, N. Approximate solutions of Ginzburg-Landau equation using two reliable techniques, *Punjab University Journal of Mathematics*, 51(1), 141-154 (2019).



- Ghanbari, B. and Raza, N. An analytical method for soliton solutions of perturbed Schrodinger equation with quadratic-cubic nonlinearity, *Modern Physics Letters B* 33, 1850427 1-10 (2019) ISI (IF=0.56).
- Khan, K. A., Butt, A. R., Raza, N. and Maqbool, K. Unsteady magneto-hydrodynamics flow between two orthogonal moving porous plates, *European Physical Journal Plus*, 134, 1-16, (2019).
- Ul-Haq, E. Raza, N. and Chaudhary, M. A. Unsteady unidirectional flow of a fractional Burgers' fluid through an infinite circular cylinder, *Journal of Nano-fluid*, 8, 267-275 (2019).
- Raza, N. and Javid, A. Generalization of optical solitons with dual dispersion in the presence of Kerr and quadratic-cubic law nonlinearities, *Modern Physics Letters B* 33, 1850427 1-10 (2019).
- M. Riaz, B. Davvaz, A. Firdous and A. Fakhar, Novel Concepts of Soft Rough Set Topology with Applications, *Journal of Intelligent and Fuzzy Systems* 36(4) (2019) 3579-3590. DOI:10.3233/JIFS181648.
- M. Riaz, F. Samrandache, A. Firdous and A. Fakhar, On Soft Rough Topology with Multi-Attribute Group Decision Making, *Mathematics* 7(1)(2019), 1-18. Doi:10.3390/math7010067.
- M. Riaz, N. Cagman, I. Zareef and M. Aslam, N-soft topology and its applications to multi-criteria group decision making, *Journal of Intelligent and Fuzzy Systems* 36(6)(2019), 6521-6536.
- M. Riaz and S. T. Tehrim, Cubic bipolar fuzzy ordered weighted geometric aggregation operators and their application using internal and external cubic bipolar fuzzy data, *Computational and Applied Mathematics*, 38(2):(2019), 1-25. doi.org/10.1007/s40314-019-0843-3.
- M. Riaz and S. T. Tehrim, Multi-Attribute Group Decision Making Based on Cubic Bipolar Fuzzy Information using Averaging Aggregation Operators, *Journal of Intelligent and Fuzzy Systems*, 37(2) (2019), 2473-2494.
- M. Riaz and S. T. Tehrim, Bipolar Fuzzy Soft Mappings with Application to Bipolar Disorders, *International Journal of Biomathematics*, (2019).
- S. T. Tehrim and M. Riaz, A novel extension of TOPSIS to MCGDM with Bipolar Neutrosophic soft topology, *Journal of Intelligent and Fuzzy Systems* (2019).
- M. Riaz, S. T. Tahrim, Certain Properties of Bipolar Fuzzy Soft Topology via Q-neighborhood, *Punjab University Journal of Mathematics* 51(3)(2019), 113-131.
- M. Riaz and M. R. Hashmi, MAGDM for agribusiness in the environment of various cubic m-polar fuzzy averaging aggregation operators, *Journal of Intelligent and Fuzzy Systems* (2019).
- M. Riaz and M. R. Hashmi, Linear Diophantine Fuzzy Set and its Applications towards Multi-Attribute Decision Making Problems, *Journal of Intelligent and Fuzzy Systems* (2019).



- M Riaz, M.Saeed, M.Saqlain and N. Jafar, Impact of Water Hardness in Instinctive Laundry System Based on Fuzzy Logic Controller, Punjab University Journal of Mathematics 51(4)(2019), 73-84.
- M.Saeed, M.Saqlain and M Riaz, Application of Generalized Fuzzy TOPSIS in Decision Making for Neutrosophic Soft Set to Predict the Champion of FIFA 2018: A Mathematical Analysis, Punjab University Journal of Mathematics 51(8)(2019), 141-156.
- A. Fahmi, M. Aslam and M. Riaz, New approach of triangular Neutrosophic cubic linguistic hesitant fuzzy aggregation operators, Granular Computing (2019).
- M. Khalid Mahmood and Shahbaz Ali. On super totient numbers, with applications and algorithms to graph labelling. Ars Combinatorica, 143 (2019) 29-38. IF: 0.31 4. M. Haris Mateen and M. Khalid Mahmood. Power Digraphs Associated with the Congruence $x^n \equiv y \pmod{m}$. Punjab University Journal of mathematics, Vol. 51(05) : 97-106 (2019).
- M. Haris Mateen and M. Khalid Mahmood. Power Digraphs Associated with the Congruence $x^n \equiv y \pmod{m}$. Punjab University Journal of mathematics, Vol. 51(05) : 97-106 (2019).
- Muhammad Tahir, Aziz Ullah Awan, Optical singular and dark solitons with Biswas-Arshed model by modified simple equation method, Optik, 202 (2020) 163523.
- Takasar Hussain, Muhammad Ozair, Kazeem Oare Okosun, Muhammad Ishfaq, Aziz UllahAwan, Adnan Aslam, Dynamics of swine influenza model with optimal control, Advances inDifference Equations, (2019) 2019:508 <https://doi.org/10.1186/s13662-019-2434-4>.
- M. Tahir, A. U. Awan, The study of complexitons and periodic solitary wave solutions with fifth order KdV equation in (2+1)-dimensions, Modern Physics Letters B, 33 (2019) 1950411 (13 pages).
- Muhammad Tahir, Aziz Ullah Awan, Analytical solitons with the Biswas-Milovic equation in the presence of spatio-temporal dispersion in non-Kerr law media, European Physical Journal Plus, 134 (2019) 464.
- Muhammad Tahir, Aziz Ullah Awan, Hamood ur Rehman, Optical solitons to Kundu–Eckhaus equation in birefringent fibers without four-wave mixing, Optik, 199 (2019) 163297.
- Aziz Ullah Awan, Nehad Ali Shah, Najma Ahmed, Qasim Ali, Samia Riaz, Analysis of free convection flow of viscous fluid with damped thermal and mass fluxes, Chinese Journal of Physics, 60 (2019) 98-106.
- Nauman Raza, Aziz Ullah Awan, Ehsan Ul Haque, Muhammad Abdullah, Muhammad Mehdi Rashidi, Unsteady flow of a Burgers' fluid with Caputo fractional derivatives: A hybrid technique, Ain Shams Engineering Journal, 10 (2019) 319-325.
- M. Tahir, A. U. Awan, H. U. Rehman, Dark and singular optical solitons to the Biswas-Arshed model with Kerr and power law nonlinearity, Optik, 185 (2019) 777-783.



- A. U. Awan, M. Tahir, H. U. Rehman, On travelling wave solutions: The Wu-Zhang system describing dispersive long waves, *Modern Physics Letters B*, 33(6) (2019) 1950059 (11 pages).
- U. Ahmad and S. Hameed, Extremal values in a class of basic pericondensed benzenoids with respect to VDB topological indices, *Ars Combinatoria: A Canadian Journal of Combinatorics*, 2019, 145, 367-376.
- U. Ahmad, M. Arooj, Combinatorial Properties of Power Graphs of Finite Groups of Prime Order Elements, *Communications in Algebra*, Published online: 02 Oct 2019, <https://doi.org/10.1080/00927872.2019.1659284>.
- U. Ahmad, S. Hameed and S. Jabeen, Noncorona graphs with strong anti-reciprocal eigenvalue property, *Linear and Multilinear Algebra*, Published online: 24 Jul 2019 <https://doi.org/10.1080/03081087.2019.1646204>
- U. Ahmad, S. Hameed and S. Jabeen, Class of weighted graphs with strong anti-reciprocal eigenvalue property, *Linear and Multilinear Algebra*, Published online: 23 Oct 2018, <https://doi.org/10.1080/03081087.2018.1532489>
- S. Hameed, U. Ahmad, Minimal Energy Tree with 4 Branched Vertices, *Open Chemistry*, 2019, 17, 198-205
- Jianzhong Xu, Jia-Bao Liu, Ahsan Bilal, Uzma Ahmad, Hafiz Muhammad Afzal Siddiqui, Bahadur Ali and Muhammad Reza Farahani, Distance Degree Index of Some Derived Graphs, *Mathematics* 2019, 7(3), 283; <https://doi.org/10.3390/math7030283>.
- Z. Yousaf, M.Z. Bhatti and M.F. Malik: *Non-reversible Evolution of Tilted Szekeres Spacetimes with $f(R)$ Gravity*, *European Physical Journal Plus*, 134(2019)470 (Springer).
- Z. Yousaf, K. Bamba, M.Z. Bhatti and U. Ghafoor: *Charged Gravastars in Modified Gravity*, *Physical Review D*, 100(2019)024062 (American Physical Society).
- Z. Yousaf, M.Z. Bhatti and S. Yaseen: *Tilted Shear-free Axially Symmetric Fluids in $f(R)$ Gravity*, *European Physical Journal Plus*, 134(2019)487 (Springer).
- M.Z. Bhatti, Z. Yousaf and Zarnoor: *Stability of Charged Neutron Star in Palatini $f(R)$ Gravity*, *Modern Physics Letters A*, 33(2019)1950252 (World Scientific).
- M.Z. Bhatti, Z. Yousaf and M. Ajmal: *Locally Isotropic Gravastars with Cylindrical Spacetime*, *International Journal of Modern Physics D*, 28(2019)1950123 (World Scientific).
- M. Ilyas, Z. Yousaf and M.Z. Bhatti: *Bounds on Higher Derivative $f(R, \square R, T)$ Models from Energy Conditions*, *Modern Physics Letters A*, 34(2019)1950082 (World Scientific).
- Z. Yousaf, M.Z. Bhatti and R. Saleem: *Electromagnetic Field and Dark Dynamical Scalars for Spherical Systems*, *European Physical Journal Plus*, 134(2019)142 (Springer).
- M.Z. Bhatti, Z. Yousaf and A. Yousaf: *Energy Content of a Collapsing Sphere with $f(R)$ Gravity*, *International Journal of Geometric Methods in Modern Physics*, 16(2019) 1950041 (World Scientific).
- M.Z. Bhatti, Z. Yousaf and A. Yousaf: *Tolman Mass of Spherical Fluids with Electromagnetic Field*, *Modern Physics Letters A*, 34(2019)1950012 (World Scientific).



- M.Z. Bhatti, Z. Yousaf and M. Ilyas: *Existence of Wormhole Solutions and Energy Conditions in $f(R,T)$ Gravity*, *Journal of Astrophysics and Astronomy*, 39(2018)69 (Springer).
- Anjan Biswas, Saima Arshed, Mehmet Ekici, Qin Zhou, Seithuti P. Moshokoa, Mohanad Alfiras, Milivoj Belic, Optical solitons in birefringent fibers with Kundu-Eckhaus equation, *Optik - International Journal for Light and Electron Optics* 178 (2019) 550–556.
- Saima Arshed, Anjan Biswas, Qin Zhou, Salam Khan, Samuel Adesanya, Seithuti P. Moshokoa, Milivoj Belic, Optical solitons perturbation with Fokas-Lenells equation by $\exp(-\varphi(\xi))$ -expansion method, *Optik - International Journal for Light and Electron Optics* 179 (2019) 341–345.
- Saima Arshed, Anjan Biswas, Mehmet Ekici, Salam Khan, Qin Zhou, Seithuti P. Moshokoa, Mohanad Alfiras, Milivoj Belic, Solitons in nonlinear directional couplers with optical metamaterials by $\exp(-\Phi(\xi))$ -expansion, *Optik - International Journal for Light and Electron Optics* 179 (2019) 443–462.
- Saima Arshed, Sub-pico second chirped optical pulses with Triki-Biswas equation by $\exp(-\Phi(\xi))$ -expansion method and the first integral method, *Optik - International Journal for Light and Electron Optics* 179 (2019) 518–525.
- Saima Arshed, Anjan Biswas, Fouad Mallawi, Milivoj R. Belic, Optical solitons with complex Ginzburg–Landau equation having three nonlinear forms, *Physics Letters A* 383 (2019) 126026.
- Nauman Raza, Saima Arshed and Sultan Sial, Optical solitons for coupled Fokas-Lenells equation in birefringence fibers, *Modern Physics Letters B* Vol. 33, No. 26 (2019) 1950317 (15 pages)
- Saima Arshed, Lubna Arshad, Optical soliton solutions for nonlinear Schrödinger equation, *Optik - International Journal for Light and Electron Optics* 195 (2019) 163077.
- S. Hameed, U. Ahmad, Extremal Values in a Class of Basic Peri-condensed Benzenoids with respect to VDB Topological Indices, *Ars Combinatoria. A Canadian Journal of Combinatorics*, 2019, 145, 367-376.
- S. Hameed, U. Ahmad, Minimal Energy Tree with 4 Branched Vertices, *Open Chemistry*, 2019, 17, 198-205
- U. Ahmad and S. Hameed, Bounds of HOMO-LUMO Gap for Certain Nanotubes and Nanotori, *Journal of Informatics and Mathematical Sciences*. 10(3), (2018), 391-398.
- U. Ahmad, S. Hameed and S. Jabeen, Noncorona graphs with strong anti-reciprocal eigenvalue property, *Linear and Multilinear Algebra*, Published online: 24 Jul 2019 <https://doi.org/10.1080/03081087.2019.1646204>.
- U. Ahmad, S. Hameed and S. Jabeen, Class of weighted graphs with strong anti-reciprocal eigenvalue property. *Linear and Multilinear Algebra*, DOI: Published online: 23 Oct 2018, <https://doi.org/10.1080/03081087.2018.1532489>
- **Conferences, Seminars and Workshops, etc.**
 - Prof. Dr. Muhammad Sharif delivered a talk on “Charged Gravastars in Extended Gravity” (30th International Texas Symposium on Relativistic Astrophysics, Portsmouth, UK, December 18, 2019).



- Prof. Dr. Muhammad Sharif attended a “6th Science and Technology Exchange Program (STEP) Meeting”, Tehran-Iran, November 9-12, 2019).
- Prof. Dr. Muhammad Sharif attended a “30th International Texas Symposium on Relativistic Astrophysics”, Portsmouth, UK, December 15-20, 2019).
- Prof. Dr. Malik Zawwar Hussain worked as member, Program and Reviewing Committee, International Conference of Graphical Models and Imaging GMAI, November 24-27, 2020, Melbourne, Australia.
- Dr. Aziz Ullah Awan participated as a Key Note Speaker at “5th International Conference on Pure and Applied Mathematics, Department of Mathematics, University of Sargodha, Sargodha”, (February 24-25, 2020).
- Title of the presented paper: Unsteady two-dimensional flow of pseudo-blood fluid in an arterial duct carrying stenosis.
- Dr. Aziz Ullah Awan presented a research paper entitled “Electroosmotic slip flow of Oldroyd-B fluid between two plates with non-singular kernel” is presented at “6th UMT International Conference on Pure and Applied Mathematics, Centre for Mathematics and its Applications, UMT Lahore”, (February 21-23, 2020).
- Dr. Muhammad Riaz attended and paper presented as INVITED SPEAKER One day International seminar on Recent Trends in Pure and Applied Mathematics November 09, 2019.
- Dr. Muhammad Riaz attended and paper presented as INVITED SPEAKER on Certain Properties of Hesitant Fuzzy Soft Topology with Multi-Attribute Decision Making Methods, The University of Lahore, from 30-11-2019 to 02-12-2019.
- Dr. Muhammad Riaz attended and paper presented as INVITED SPEAKER on Soft Rough m-polar Neutrosophic Sets and their application in Decision Making. Symposium on Fuzzy Analysis, Soft Set and Decision Making at University of management & Technology Lahore. Dated: 27-01-2020.
- Dr. Muhammad Riaz attended and paper presented as INVITED SPEAKER on Roughness and Fuzziness Associated with Soft Multi Sets at Virtual University of Pakistan Dated: 08-01-2020.
- Dr. Muhammad Riaz presented a paper and Member Organizing Committee in 6th UMT International Conference on Pure and Applied Mathematics (6th UICPAM-2019) February 21-23, 2020.
- Dr. M. Z. Bhatti delivered at talk, Vectors, Tensors and Differential Geometry (Invited Talk) at Department of Mathematics, Forman Christian College (A Chartered University), Lahore, Pakistan on December 16, 2019.
- Dr. M. Z. Bhatti delivered at talk, Instability Constraints: Stability of Celestial Objects (Invited Talk) in an International Conference named “6th UMT International Conference on Pure and Applied Mathematics” at Center for Mathematics and its Applications, UMT, Lahore, Pakistan during February 21-23, 2020.



- Dr. M. Z. Bhatti delivered at talk, Stable/Unstable Phases of Collapsing Models (Invited Talk) in an International Webinar named “International Webinar on Applied Mathematics and Modelling” by Virtual University of Pakistan on September 24, 2020.
- Dr. M. Z. Bhatti attended the seminar, One Day International Seminar on Recent Trends in Pure and Applied Mathematics at Government College University Faisalabad, Faisalabad, Pakistan on November 09, 2019.
- **Research Journals**
Punjab University Journal of Mathematics (PUJM, Category Y) Journals have been exchanged in the different libraries worldwide.

RESEARCH COLLABORATION

- **Foreign Linkages**
 - Department of Mathematics, University of the Punjab, Lahore-Pakistan and School of Mathematical Sciences, University of Sians, Malaysia has signed Memorandum of Understanding (MOU) for research collaboration.
 - School of Engineering, Manufacturing and Mechanical Engineering, University of Birmingham, UK.
- **Funding grants for R&D**
 - HEC granted scholarships for seven Ph.D. Scholars.
 - DPCC granted (three for Ph.D. student and three for M.Phil. student).

DEPARTMENT OF PHYSICS

R&D-An Overview

Research activities in the Department are going on in various areas including experimental and theoretical physics in collaboration with International Institutions/ Organizations namely Institute of High Energy Physics (IHEP)-China, Beijing Spectrometer-III (BESIII) Collaboration, Shanghai University and Beijing Institute of Technology (BIT)-China. Research Collaboration is initiating with ALICE Experiment, CERN, Switzerland. On the other hand physics department also collaborating National Institutions/ Organizations namely PINSTECH, INMOL, Lahore, Shaukat Khanum Hospital-Lahore, SUPARCO-Lahore, Govt. College University- Lahore, Centre of Excellence in Solid State Physics, Department of Meteorology-Lahore, PCSIR-Lahore, UET-Lahore, BZU-Multan, COMSATS-Lahore, Department of Physics-IUB and FC College Lahore. The main fields of research in theoretical Physics are: Quantum Field Theory, Conformal Field Theory, Condensed Matter Physics, Plasma and Nonlinear Physics. On the other hand, the experimental research includes High Energy Physics, Material Science, Solid State Physics, Nuclear Physics, Nuclear Medicine, Physics of Semiconductor Devices, thin films, atmospheric Physics, Environmental Pollution & Climatology, and Quantum Wires / Quantum Dots (Nanotechnology) and estimation chemical contamination of drinking water.

Forty research papers have been published in National and Internal Research Journals by the faculty members in the last academic year and many are submitted.



- **Projects:** Completed
Completed: 1 Project (Funded by University of the Punjab, Lahore)
Under process: 5 (Funded by University of the Punjab, Lahore)
- **Projects:** Newly Launched
 - A proposal of PC-1 for Central Instrumentation Laboratory is submitted to University.
 - PC-1 for the Strengthen the Research Infrastructure in Department of Physics is under preparation.
 - Faculty members are preparing research proposals for submission to HEC under the call HEC NRPU by HEC (Deadline January 15, 2020)
- **Publications:** Books/Edited
 - Riaz, H. W. A., & ul Hassan, M. (2019). An integrable noncommutative generalization of the AB system and its multisoliton solutions. Communications in Nonlinear Science and Numerical Simulation, 79, 104936.
 - ALI, M. Z. (2019). Linear and nonlinear TM polarized surface waves in anisotropic metamaterials. Optica Applicata, 49(3).
 - H. Sarfraz Y. Hanif and U. Saleem (2020), Novel solutions of general and reverse space-time nonlocal coupled integrable dispersionless systems Results in Physics ISSN: 2211-379716, Page 102893
 - H. Sarfraz Y. Hanif and U. Saleem (2020) On PT-symmetric semi-discrete coupled integrable dispersionless system Nonlinear Dynamics ISSN: 0924-090X (Print) ISSN: 1573-269X (Electronic) 99, Page 2409
 - Y. Hanif and U. Saleem (2020) Coupled sine-Gordon systems in living cellular structure Modern Physics Letters B ISSN: 0217-9849 (Print) ISSN: 1793-6640 (Print) 34 Page 2050070
 - H. Sarfraz and U. Saleem (2020) Symmetry broken and symmetry preserving multi-soliton solutions for nonlocal complex short pulse equation Chaos, Solitons and Fractals ISSN: 0960-0779 (Print/Electronic) 130, Page 109451 (IF=3.764)
 - H. Sarfraz and U. Saleem (2020) Supersymmetric integrable AB system Modern Physics Letters A World Scientific-Singapore ISSN: 0217-7323 (Print) ISSN: 1793-6632 (Electronic) 35, Page 2050023
 - Y. Hanif, H. Sarfraz and U. Saleem (2020) Dynamics of loop soliton solutions of PT – symmetric nonlocal short pulse equation Nonlinear Dynamics ISSN: 0924-090X (Print) ISSN: 1573-269X (Electronic) Nonlinear Dynamics ISSN: 0924-090X (Print) ISSN: 1573-269X (Electronic) 100, Page 1559
 - H. Sarfraz and U. Saleem (2020) Symmetry broken and unbroken solutions of nonlocal NLS equation in $(2 + 1)$ dimensions Results in Physics ISSN: 2211-3797 (Print/Electronic) 17, Page 103100
 - Y. Hanif and U. Saleem (2020) Darboux transformation and multi-soliton solutions of the discrete sine-Gordon equation Progress of Theoretical and Experimental Physics ISSN: 2050-3911 (Print/Electronic) 2020, Page 063A01, Page 063A01



- Y. Hanif and U. Saleem (2020) Degenerate and non-degenerate solutions of PT-symmetric nonlocal integrable discrete nonlinear Schrödinger equation Physics Letters A ISSN: 0375-9601 384, Page 126834
- Y. Hanif, H. Sarfraz and U. Saleem (2020) PT-symmetric semi-discrete short pulse equation Results in Physics ISSN: 2211-3797 (Print/Electronic) 19, Page 103522
- Hanif, Y., & Saleem, U. (2019). Broken and unbroken PT-symmetric solutions of semi-discrete nonlocal nonlinear Schrödinger equation. Nonlinear Dynamics, 98(1), 233-244.
- Sarfraz, H., & Saleem, U. (2019). Integrable discretizations of AB system and multi-soliton solutions. Communications in Nonlinear Science and Numerical Simulation, 79, 104921.
- Hanif, Y., Sarfraz, H., & Saleem, U. (2019). General, symmetry non-preserving and preserving multiple soliton solutions of long wave-short wave resonant models. Chaos, Solitons & Fractals, 125, 119-138.
- Hanif, Y., & Saleem, U. (2019). General, symmetry non-preserving and preserving multiple soliton solutions of long wave-short wave resonant models. The European Physical Journal Plus, 134(5), 200.
- Dr. Abrar Ahmad Zafar, BESIII Collaboration (2020), Measurement of cross sections for $e^+e^- \rightarrow \mu^+\mu^-$ at center-of-mass energies from 3.80 to 4.60 GeV 112009 (2020) Phys. Rev. D 102, (IF= 4.368)
- Dr. Abrar Ahmad Zafar, BESIII Collaboration (2020), Search for new hadronic decays of h_c and observation of $h_c \rightarrow K^+K^-\pi^+\pi^-\pi^0$ 112007 Phys. Rev. D 102, (IF= 4.368)
- Dr. Abrar Ahmad Zafar, BESIII Collaboration (2020), Improved model-independent determination of the strong-phase difference between D^0 and $\bar{D}^0 \rightarrow K^0S, LK^+K^-$ decays 052008 (2020) Phys. Rev. D 102 (IF = 4.368)
- Dr. Abrar Ahmad Zafar, BESIII Collaboration (2020), Observation of the Doubly Cabibbo-Suppressed Decay $D^+ \rightarrow K^+\pi^+\pi^-\pi^0$ and Evidence for $D^+ \rightarrow K^+\omega$ 141802 Phys. Rev. Lett. 125 (IF = 9.227)
- Dr. Abrar Ahmad Zafar, BESIII Collaboration (2020), Search for intermediate resonances and dark gauge bosons in $J/\psi \rightarrow \gamma \pi^0 \eta'$ 052005 Phys. Rev. D 102, (IF = 4.368)
- Dr. Abrar Ahmad Zafar, BESIII Collaboration (2020), Measurement of singly Cabibbo-suppressed decays $D \rightarrow \omega \pi \pi$ 052003 Phys. Rev. D 102, (IF = 4.368)
- Dr. Abrar Ahmad Zafar, BESIII Collaboration (2020), Observation of the decays $\chi_{cJ} \rightarrow \Sigma^0 p K^{++} c.c.$ ($J=0,1,2$) 092006 Phys. Rev. D 102, (IF = 4.368)
- Dr. Abrar Ahmad Zafar, BESIII Collaboration (2020), Search for the semileptonic decay $D^0(+) \rightarrow b_1(1235)^-(0) e^+ \nu_e$, 112005 (2020) Phys. Rev. D 102 (IF= 4.368)
- Dr. Abrar Ahmad Zafar, BESIII Collaboration (2020), Observation of the $Y(4220)$ and $Y(4390)$ in the process $e^+e^- \rightarrow \eta J/\psi$ 031101(R) Phys. Rev. D 102, (IF = 4.368)
- Dr. Abrar Ahmad Zafar, BESIII Collaboration (2020), Σ^+ and $\bar{\Sigma}^-$ Polarization in the J/ψ and $\psi(3686)$ Decays 052004 Phys. Rev. Lett. 125, (IF = 9.227)



- Dr. Abrar Ahmad Zafar, BESIII Collaboration (2020), Study of the process $e+e-\rightarrow\pi^0\pi^0J/\psi$ and neutral charmoniumlike state $Z_c(3900)0$ 012009 (2020) Phys. Rev. D 102,
- Dr. Abrar Ahmad Zafar, BESIII Collaboration (2020), First Observation of $D^+\rightarrow\eta\mu+\nu\mu$ and Measurement of Its Decay Dynamics 231801 (2020) Phys. Rev. Lett.124.
- Dr. Abrar Ahmad Zafar, BESIII Collaboration (2020), Observation of a structure in $e+e-\rightarrow\phi\eta'$ at \sqrt{s} from 2.05 to 3.08 GeV M. Ablikim 012008 Phys. Rev. D 102,
- Dr. Abrar Ahmad Zafar, BESIII Collaboration (2020), Model-independent determination of the relative strong-phase difference between D^0 and $\bar{D}^0\rightarrow K^0S$, $L\pi+\pi^-$ and its impact on the measurement of the CKM angle γ/ϕ 3112002 (2020) - Phys. Rev. D101,
- Dr. Abrar Ahmad Zafar, BESIII Collaboration (2020), Search for the decay $J/\psi\rightarrow\gamma+$ invisible 112005 (Phys. Rev. D 101)
- Dr. Abrar Ahmad Zafar, BESIII Collaboration (2020), First measurements of $\chi_{cJ}\rightarrow\Sigma^-\bar{\Sigma}^+(J=0,1,2)$ decays 092002 (2020) Phys. Rev. D 101.
- Dr. Abrar Ahmad Zafar, BESIII Collaboration (2020), Study of Open-Charm Decays and Radiative Transitions of the $X(3872)$ 242001 Phys. Rev. Lett . 124.
- Dr. Abrar Ahmad Zafar, BESIII Collaboration (2020), Determination of Strong-Phase Parameters in $D\rightarrow K^0S, L\pi+\pi^-$ 241802 Phys. Rev. Lett. 124.
- Dr. Abrar Ahmad Zafar, BESIII Collaboration (2020), Measurements of Absolute Branching Fractions of Fourteen Exclusive Hadronic D Decays to η 241803 Phys. Rev. Lett 124.
- Dr. Abrar Ahmad Zafar, BESIII Collaboration (2020), Inclusive charged and neutral particle multiplicity distributions in χ_{cJ} and J/ψ decays 052001 Phys. Rev. D 102.
- Dr. Abrar Ahmad Zafar, BESIII Collaboration (2020), Measurement of the Born cross sections for $e+e-\rightarrow D+sD_{s1}(2460)^-+c.c.$ and $e+e-\rightarrow D^*+sD_{s1}(2460)^-+c.c.$ 112008 Phys. Rev. D 101
- Dr. Abrar Ahmad Zafar, BESIII Collaboration (2020), Measurements of the absolute branching fractions of $D^0(+)\rightarrow K^-\bar{K}\pi\pi$ decays 052006 (2020) Phys. Rev. D 102
- Zamir, B., Ali, R., & Bashir, M. (2019). Electromagnetic wave propagation in a superconducting parallel-plate waveguide filled with an indefinite medium. Results in Physics, 13, 102312. (IF=3.042)
- Z. Amjad and B. Haider. (2019) Quasigrammian solutions of generalized SUSY Heisenberg magnet model, Theoretical and Mathematical Physics, 199 (3): 784-797
- Bakar, A., Afzal, M., Bashir, M., Afaq, A., Iftikhar, A., Aziz, F., & Asif, M. (2019). Computational investigations of MnNiCuSb alloy for structural, elasto-mechanical and vibrational properties. Modern Physics Letters B, 33(23), 1950276.
- Rashid, M., Mahmood, Q., Hassan, M., Yaseen, M., & Laref, A. (2019). Optoelectronic and thermoelectric behavior of XIn_2Te_4 ($X= Mg, Zn$ and Cd) for energy harvesting application; DFT approach. Physica Scripta.
- Mahmood, Q., Hassan, M., Yaseen, M., & Laref, A. (2019). Half-metallic ferromagnetism and optical behavior in alkaline-earth metals based Beryllium perovskites: DFT calculations. Chemical Physics Letters, 729, 11-16. (IF = 1.901)



- Mahmood, Q., Rashid, M., ul Hassan, M., Yaseen, M., Laref, A., & Haq, B. U. (2019). Engineering of bandgap and optical properties of $\text{In}_x\text{Ga}_{1-x}(\text{As/Sb})$ via across composition alloying for solar cell applications using density functional theory based approaches. *Physica Scripta*.
- Mahmood, Q., Hassan, M., Rashid, M., Haq, B. U., & Laref, A. (2019). The systematic study of mechanical, thermoelectric and optical properties of lead based halides by first principle approach. *Physica B: Condensed Matter*, 571, 87-92. (IF = 1.874)
- I. Bibi, S. Kamal, Z. Abbas, S. Atta, F. Majid, K. Jilani, (2020) A new approach of photocatalytic degradation of remazol brilliant blue by environment friendly fabricated zinc oxide nanoparticle, *International Journal of Environmental Science and Technology* 17:1765–1772.
- Ismat Bibia, Shumaila Javed, Sadia Ata, Farzana Majid, Shagufta Kamal, Misbah Sultan, Kashif Jilani, Muhammad Umair, Muhammad Iftikhar Khan, Munawar Iqbal (2019) Biodegradation of synthetic orange G dye by *Pleurotus sajor-caju* with *Punica granatum* peel as natural mediator, *Biocatalysis and Agricultural Biotechnology* 22(10)1420
- Farzana Majid, M. Tauqeer, Nasir Eman Algrafy, Muhammad Sajjad, N.A. Noor, Asif Mahmood, Shahid M. Ramay (2020) Exploration of magnesium based MgX_2O_4 ($X = \text{Rh}, \text{Bi}$) spinels for thermoelectric applications using density functional theory (DFT), *Journal of materials and research technology*, 9(3), 6135-6142.
- I. Bibi, U. Ali, S. Kamal, S. Ata, S.M. Ibrahim, F. Majid, Z. Nazeer, F. Rehman, S. Iqbal, M. Iqbal (2020) Synthesis of $\text{La}_{1-x}\text{Co}_x\text{Fe}_{1-y}\text{Cr}_y\text{O}_3$ nano crystallites for enhanced ferroelectric, magnetic and photocatalytic properties, *Journal of materials and research and technology*, 9 (6), 12031-12042.
- Dr. Muzaffar Bashir (2020) An indispensable modified screen to assist automated optical fringe counting, *European Journal of Physics*. 41 (3), 035301
- Dr. Muzaffar Bashir (2020) A Deep Siamese Convolution Neural Network for Multi-Class Classification of Alzheimer Disease Brain Sciences 10 (2), 84
- Dr Saman Iqbal (2020), Zinc-doped hydroxyapatite zeolite/polycaprolactone composites coating on magnesium substrate for enhancing in-vitro corrosion and antibacterial performance *Transactions of Nonferrous Metals Society of China*
- Sehrish Abbas, Ismat Bibi, Farzana Majid, Sadia Ata, Sobhy M. Ibrahim, Shagufta Kamal, Misbah Sultan, Kashif Jilani, Shahid Iqbal and Munawar Iqbal* (2020) Micro-emulsion synthesis of $\text{La}_{1-x}\text{Cr}_x\text{FeO}_3$ nanoparticles: effect of Cr doping on ferroelectric, dielectric and photocatalytic properties, *Int. J. Chem. React. Eng.*, 2019020
- Farzana Majid, Javeria Rauf, Sadia Ata, Ismat Bibi, Abdul Malik, Sobhy M. Ibrahim, Adnan Ali, Munawar Iqbal (2020) Synthesis and characterization of NiFe_2O_4 ferrite: Sol-gel and hydrothermal synthesis routes effect on structural, magnetic and dielectric properties, *Materials Chemistry and Physics* 258 (2021) 123.888.
- Muhammad Riaz (2020) A remarkably facile automated numerical data extraction tool from oscilloscope screen snapshots *European Journal of Physics*, Volume 41, Number 6



- Muhammad Riaz, (2020) An exhibition of a rich variety of periodic attractors through alternation in elemental order of series LCR-type resonant circuits The European Physical Journal Plus 135
- Muhammad Riaz and Muzaffar Bashir (2020) An indispensable modified screen to assist automated optical fringe counting, European Journal of Physics Volume 41
- Majid, Farzana, et al. "Structural and Optical Properties of Multilayer Heterostructure of CdTe/CdSe Thin Films." *Zeitschrift für Physikalische Chemie* 233.9 (2019): 1215-1231
- Majid, F., Rauf, J., Ata, S., Bibi, I., Yameen, M., & Iqbal, M. (2019). Hydrothermal Synthesis of Zinc Doped Nickel Ferrites: Evaluation of Structural, Magnetic and Dielectric Properties. *Zeitschrift für Physikalische Chemie*, 233(10), 1411-1430.
- Ata, S., Tabassum, A., Bibi, I., Majid, F., Sultan, M., Ghafoor, S., ... & Iqbal, M. (2019). Lead Remediation Using Smart Materials. A Review. *Zeitschrift für Physikalische Chemie*, 233(10), 1377-1409.
- Bibi, I., Hussain, S., Majid, F., Kamal, S., Ata, S., Sultan, M., ... & Nazir, A. (2019). Structural, dielectric and magnetic studies of perovskite [Gd1- xMxCrO3 (M= La, Co, Bi)] nanoparticles: photocatalytic degradation of dyes. *Zeitschrift für Physikalische Chemie*, 233(10), 1431-1445.
- Ajmal, S., Bibi, I., Majid, F., Ata, S., Kamran, K., Jilani, K., ... & Iqbal, M. (2019). Effect of Fe and Bi doping on LaCoO3 structural, magnetic, electric and catalytic properties. *Journal of Materials Research and Technology*, 8(5), 4831-4842.
- Majid, F., Ata, S., ul Attique, H. M., Ali, A., Haq, B. U., & Laref, A. (2019). First-principle simulations of XIn2S4 (X= Zn, Cd) thiospinels for energy harvesting devices. *Chemical Physics Letters*, 723, 44-50.
- Awan, A., Nadeem, M., Riaz, S., Hussain, S. S., Majid, F., & Naseem, S. (2019). Molarity dependent oscillatory structural and magnetic behavior of phase pure BiFeO3 thin films: Sol-gel approach. *Ceramics International*, 45(4), 5111-5123.
- Majid, F., Nazir, A., Ata, S., Bibi, I., Mehmood, H. S., Malik, A., ... & Iqbal, M. Effect of Hydrothermal Reaction Time on Electrical, Structural and Magnetic Properties of Cobalt Ferrite. *Zeitschrift für Physikalische Chemie*.
- Riaz, M., & Kanwal, N. (2019). An improved parallel plate capacitor apparatus for the estimation of dielectric constants of solid materials. *European Journal of Physics*.
- Rehman, K. M. U., Riaz, M., Liu, X., Khan, M. W., Yang, Y., Batoo, K. M. & Khan, M. (2019). Magnetic properties of Ce doped M-type strontium hexaferrites synthesized by ceramic route. *Journal of Magnetism and Magnetic Materials*, 474, 83-89.
- Rehman, K. M. U., Liu, X., Riaz, M., Yang, Y., Feng, S., Khan, M. W., ... & Batoo, K. M. (2019). Fabrication and characterization of Zinc Telluride (ZnTe) thin films grown on glass substrates. *Physica B: Condensed Matter*, 560, 204-207.
- Rasul, M. N., Javed, A., Khan, M. A., & Hussain, A. (2019). Study of the structural, mechanical, electronic and magnetic properties of quaternary YFeCrX (X= Al, Ga, In, Si, Ge, Sn, P, As, Sb) Heusler alloys. *Journal of Magnetism and Magnetic Materials*, 476, 398-411.



- Rasul, M. N., Javed, A., Khan, M. A., & Hussain, A. (2019). Structural stability, mechanical, electronic and magnetic behaviour of quaternary ScNiCrX ($X = \text{Al, Ga}$) Heusler alloys under pressure. *Materials Chemistry and Physics*, 222, 321-332.
- Javed, A., Szumiata, T., Sarwar, A., & Fatima, T. (2019). Structure and Mössbauer spectroscopy studies of $\text{NiO} \cdot 5\text{ZnO} \cdot 5\text{NdFe}_2\text{-xO}_4$ ($0.00 \leq x \leq 0.10$) ferrites. *Materials Chemistry and Physics*, 221, 99-107.
- Nabi, J. U., Shehzadi, R., & Majid, M. (2019). Neutrino cooling rates due to nickel isotopes for presupernova evolution of massive stars. *New Astronomy*, 71, 12-24.
- A. Javed, Nauman Khan, S. Bashir, M. Ahmad, M. Bashir (2020) *"Thickness dependent structural, electrical and optical properties of cubic SnS thin films"* *Materials Chemistry and Physics* 246) 122831.
- M. A. Rafiq, A. Javed, M. N. Rasul, M. A. Khan, A. Hussain (2020) *"Understanding the structural, electronic, magnetic and optical properties of spinel MFe_2O_4 ($M = \text{Mn, Co, Ni}$) ferrites"* *Ceramics International* 46 4976-4983.
- Falak, A.; Tian, Y.; Yan, L.; Xu, L.; Song, Z.; Hu, H.; Dong, F.; Adamu, B.I.; Zhao, M.; Chen, P.; Wang, H.; Chu, (2020) W. Ultrathin MoOx /Graphene Hybrid FET Sensors Prepared Simply by a Shadow Mask Approach for Selective ppb-Level NH_3 Sensing with Simultaneous Superior Response and Fast Recovery. *Advanced Materials Interfaces*, 1902002.
- Falak, A.; Yan, L.; Tian, Y.; Zhang, X.; Xu, L.; Song, Z.; Dong, F.; Chen, P.; Zhao, M.; Wang, H.; Chu, (2020) W. Simultaneous Achievement of Superior Response and Full Recovery of Titanium Dioxide/Graphene Hybrid FET Sensor for NH_3 through p- to n-Mode Switch. *Physical Chemistry Chemical Physics*.
- Ali, H.; Tang, J.; Peng, K.; Sun, S.; Falak, A.; Song, F.; Wu, S.; Qian, C.; Wang, M.; Zhang, X. (2020) Single-Electron Pumping in a ZnO Single-Nanobelt Quantum Dot Transistor. *Science China Physics, Mechanics & Astronomy*, 2020, 1-8.
- Zhao, M.; Falak, A.; Tian, Y.; Yan, L.; Liu, R.; Chen, W.; Wang, H.; Wu, T.; Chen, P.; Chu, W. (2020) Cu/graphene interdigitated electrodes with various copper thicknesses for UV-illumination-enhanced gas sensors at room temperature. *Physical Chemistry Chemical Physics*.
- Adamu, B. I.; Falak, A.; Tian, Y.; Tan, X.; Meng, X.; Chen, P.; Wang, H.; Chu, (2020) W. p-p Heterojunction Sensors of p- $\text{Cu}_3\text{Mo}_2\text{O}_9$ Micro/Nanorods Vertically Grown on p- CuO Layers for Room-Temperature Ultrasensitive and Fast Recoverable Detection of NO_2 . *ACS Applied Materials & Interfaces*, , 8411-8421.
- Falak, A.; Tian, Y.; Yan, L.; Zhao, M.; Zhang, X.; Dong, F.; Chen, P.; Wang, H.; Chu, (2019) W. Room Temperature Detection of NO_2 at ppb Level and Full Recovery by Effective Modulation of the Barrier Height for Titanium Oxide/Graphene Schottky Heterojunctions. *Advanced Materials Interfaces*, , 1900992.
- Tian, Y.; Wang, H.; Yan, L.; Zhang, X.; Falak, A.; Guo, Y.; Chen, P.; Dong, F.; Sun, L.; Chu, (2019) W. A Generalized Methodology of Designing 93D SERS Probes with Superior Detection Limit and Uniformity by Maximizing Multiple Coupling Effects. *Advanced Science*, 1900177.



- **Conferences, Seminars and Workshops, etc.**
 - PU International Symposium on Advanced Energy Storage Materials, Organized by Department of Physics, PU, Lahore-Pakistan (November 04-06, 2019).
 - PU-Physics Workshop and Lecture Series on Integrable Systems and Nonlinear Physics, Department of Physics, PU, Lahore-Pakistan (November 13-21, 2019).
- **Research Journals**

The following journals are received regularly:

 - CERN Courier
 - Nuclear Engineering & Technology
 - Microscopy & Analysis
 - Most of the journals are freely available online

RESEARCH COLLABORATION

- **Indigenous**

Faculty members are collaborating with other institutions for their research which includes, PINSTECH, INMOL, Lahore, Shaukat Khanum Hospital-Lahore, SUPARCO-Lahore, Govt. College University- Lahore, Centre of Excellence in Solid State Physics, Department of Meteorology-Lahore, PCSIR-Lahore, UET-Lahore, BZU-Multan, COMSATS-Lahore, Department of Physics-IUB and FC College Lahore.
- **Foreign Linkages**
 - Department of Physics, University of Shanghai, China
 - Institute of High Energy Physics, Beijing, China
 - Beijing Institute of Technology, Beijing, China
- **Funding grants for R&D**

Mostly teachers of the Department of Physics applied for research grants under Faculty Development Programme of PU, Lahore and they were awarded accordingly.

DEPARTMENT SPACE SCIENCE

- **Research & Development An Overview**

Research and Development is the integral part of the curricula of all our academic programs. 80 to 90 percent students of academic programs opt the research & report writing (as a paper titled 'Thesis') during the last semester. However, internships are also done by the students. Research and report writing for M.Phil and PhD scholars is mandatory. Software relating to research and development are available as well as hardware.
- **Publications**

Sr.	Name of Faculty Member	Title of Research Paper
1	Muhammad Saifullah, Memoona Zafar, Anam Sohail, Faiza Mehmood, Muhammad Musharaf, Jehanzaib Khan, Ayesha Ashfaq, Syed Amer Mahmood	Appraisal of Urban Sprawl in Mega Cities of Punjab Pakistan in context of socio-Political Issues using RS/GIS. International Journal of Innovations in Science & Technology, Vol. 1 (3) 108-119.



2	Muhammad Younis, Nadia Chemmaa, Syed Amer Mehmood, Syed Tahir Rizvi, Ahmet Bekir	A variety of exact solutions to (2+1) – dimensional Schrodinger equation in Journal of Taylor & Francis, Vol. 30(3) 490-499 Impact Factor 3.330.
3	Bushra Talib, Hania Arif, Muhammad Shahzad, Syed Amer Mahmood, Hafsa Batool, Kashif Naeem, Saira Batool, Jawad Nasir, Muhammad Shafiq	Spatiotemporal Analysis of Land Use / Land Cover in Swat, Pakistan Using Supervised Classification in Remote Sensing: 2000 to 2015 in Int. J. Econ. Environ. Geol. , Vol. 11(2) 69-74.
4	Ahmet Bekir, Muhammad Younis, Syed Tahir Rizvi, Ali Sardar, Syed Amer Mahmood	On traveling wave solutions: the decoupled nonlinear Schrödinger equations with inter modal dispersion in Journal of <i>Computational Methods for Differential Equations</i> . Impact Factor 1.305.
5	Jahanzeb Qureshi, Syed Amer Mahmood, Muhammad Khubaib Abuzar, Amer Masood, Muhammad Shafiq	Neotectonics of Zindapir Anticline and Sulaiman Fold and Thrust Belt: Inferences from SRTM DEM in Int. J. Econ. Environ. Geol., Vol. 11(1).
6	Amer Masood , Syed Amer Mahmood , Jahanzeb Qureshi , Muhammad Khubaib Abuzar	Investigation of Tilt Block Neotectonics in Gilgit-Baltistan-Pakistan: Implications from T-factor and fractal Analyses in Journal of the Research Society of Pakistan, Vol. 57(1)
7	Muhammad A. Butt, A. Khalid, A. Ali, S. A. Mahmood, J. Sami, Jahanzeb Qureshi, K. Waheed & A. Khalid	Towards a Web GIS-based approach for mapping a dengue outbreak in Journal of Applied Geomatics, Vol. 12. 1.20
8	Mahmood K., Batool R.,	Comparison of stochastic and traditional water quality indices for mapping groundwater quality zones in Journal of Environmental Earth Sciences, Vol. 79: 405 Impact Factor 2.18
9	Mahmood K., Qaiser A., Farooq S., Nisa M.,	2020. RS- and GIS-based modeling for optimum site selection in rain water harvesting system: an SCS-CN approach. Acta Geophysica, Vol. 68:1175-1185 Impact Factor 1.395.
10	Usman Mehmood, Salman Tariq, Zia ul-Haq.	Does the modifying role of institutional quality remains homogeneous in GDP-CO ₂ emission nexus? New evidence from ARDL approach in Journal of <i>Environmental Science and Pollution Research</i> (2020). https://doi.org/10.1007/s11356-020-11293-y . 3.056.
11	Usman Mehmood, Salman Tariq,	Globalization and CO ₂ emissions nexus: evidence from the EKC hypothesis in South Asian countries. Environmental Science and Pollution Research . https://doi.org/10.1007/s11356-020-09774-1 . 27, 37044–37056 Impact Factor 3.056.



12	Salman Tariq and Zia ul-Haq,	Investigating the Aerosol Optical Depth and Angstrom Exponent and their Relationships with Meteorological Parameters over Lahore in Pakistan. Proceedings of the National Academy of Sciences, India Section A: Physical Sciences https://doi.org/10.1007/s40010-018-0575-6 , ISSN: 0369-8203 (Print) 2250-1762 (Online) Impact Factor 0.921
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INSTITUTE OF CHEMISTRY

○ **Research and Development:** An Overview

Institute of Chemistry is one of the most active institute of University of the Punjab regarding its contribution toward research and development. The faculty members of the institute are actively involved in the research and development and present their work at various international and national conferences, seminars and workshops. Almost all faculty member win University Research Projects Around 60 publications have been published in the above mentioned time period.

Institute of Chemistry has also established research collaborations and linkages with the following organizations.

- PCSIR, Ferozpur Road, Lahore.
- HEJ, Karachi.
- PINSTECH, Islamabad.
- NIBJI, Faisalabad.
- ANMOL, Lahore.
- UMT, Lahore

INSTITUTE OF GEOLOGY

○ **Research & Development:** An Overview

The Institute of Geology, University of the Punjab is oldest seat of learning in the discipline of Geology, and is providing trained indigenous workforce equipped with strong academic background in natural resources to the industry. Over the years, the Institute of Geology has evolved to hold a unique position in the country in geologic education. Bachelor of Science degree being offered at the Institute of Geology is a blend of theory, observation, laboratory studies and basic sciences, with special emphasis on fieldwork. While, M.Phil. in Applied Geology is a professional career-oriented program, having diversified fields of specialization addressing major areas of geoscience, enabling the students to take up specialized professional career as geologists in industry and to be prepared to step forward to higher education in a specific field of geology.



○ **Project: Newly launched**

Sr. No.	Investigator	Amount (Rs.)	Sponsoring Agency	Duration (year)
1	Prof. Dr. Naveed Ahsan	250,000	University of the Punjab, Lahore	01 year
2	Dr. Mian Sohail Akram, Associate Professor	150,000	-do-	-do-
3	Dr. M. Armaghan Faisal Miraj, Assistant Professor	150,000	-do-	-do-
4	Mr. Shahid Ali, Lecturer	125,000	-do-	-do-

○ **Publications**

Sr. No	Authors name	Title of Research Paper	Name of Publishing Journal	Vol.
2	Wasif Saeed, Hongbing Zhang, Qiang Guo, Aamir Ali, Tahir Azeem, Muhammad Toqeer, Muhammad Jawad Munawar, Mujahid Hussain	An integrated petrophysical-based wedge modeling and thin bed AVO analysis for improved reservoir characterization of Zhujiang Formation, Huizhou sub-basin, China: A case study	Open Geosciences	
3	Qazi Adnan Ahmad, Guochen Wu, Zhaoyun Zong, Jianlu Wu, Muhammad Irfan Ehsan and Zeyuan Du	A rock physical approach to understand geo-mechanics of cracked porous media having three fluid phases	Geomechanics and Engineering	23(4): 000-000
4	Naveed Akram, Nisar Ahmed *, Muhammad S. Khan, Muhammad I. Ehsan, Muhammad A. Gul, Mubasher Ahmad	Reservoir Characterization by using Petrophysical-Electrofacies Analyses and Subsurface Structural Interpretation of the Nandpur Gas Field, Middle Indus Basin, Pakistan	Himalayan Geology	41(2) 208-221
6	Khalid P., Khurram S., and Raza Z.	Hypocenter relocation and velocity model for major earthquakes in northwest Himalaya	Arabian Journal of Geosciences	13:1240
7	Khurram S., Khalid P., Din.U., Ali A., and Bahija A	Integrated Study of Geotechnical and Geophysical methods to Assess the Soil Corrosion Potential for Construction Site	International Journal of Economic and Environmental Geology	11(3):79-84
10	Ahmed N., Ali S.H., Ahmad M., Khalid P., Ahmad B., Akram M.S., Farooq S., and Din Z.U.	Subsurface structural investigation based on seismic data of the north-eastern Potwar basin, Pakistan.	Indian Journal of Geo Marine Sciences	49 (07), 1258–1268
11	Ghazi S., Ali S.H., Shahzad T., Ahmed N., Khalid P., Akram S., Ali S., and Sami J	Sedimentary, structural, and salt tectonic evolution of Karoli- Nilawahan area, Central Salt Range and its impact for the Potwar Province	Himalayan Geology	41(2) 145–156



12	Khalid P., Akhtar S., and Khurram S	Reservoir Characterization and Multiscale Heterogeneity Analysis of Cretaceous Reservoir in Punjab Platform of Middle Indus Basin, Pakistan	Arabian Journal for Science and Engineering	45,4871–4890
13	Khalid P., Khurram s., Qureshi J., and Din Z.U.	An Assessment of Seismic Hazard of Roller Compacted Concrete Dam Site in Gilgit-Baltistan of Northern Pakistan.	Earthquake Engineering and Engineering Vibration	18(4):223–230
15	Miraj, M.A.F., Ali, A., Ahsan, N., Afgan, S., & Saleem, R.F., Comparative Analysis of Salt Structures in the Southern North Sea, Dutch Offshore, the Netherlands.		Geotectonics	54(6):807–820
16	Aziz, H., Ehsan, M., Ali, A., Khan, H. K., & Khan, A,	Hydrocarbon source rock evaluation and quantification of organic richness from correlation of well logs and geochemical data: A case study from the Sembar Formation, Southern Indus Basin, Pakistan	Journal of Natural Gas Science and Engineering	81:103–115

○ **Research Journals**

Institute of Geology publishes an annual research journal “The Geological Bulletin of the Punjab University” up-coming Vol. 46 & 47 is under printing process.

RESEARCH COLLABORATION

○ **Indigenous**

- Research collaboration with Pakistan Association of Petroleum Geologists (PAPG).
- Research collaboration with Oil & Gas Training Institute (OGTI) and Oil & Gas Development Corporation (OGDCL), Islamabad.
- Research Collaboration with Pakistan Petroleum Limited (PPL), Karachi

○ **Foreign Linkages**

- Linkages with Seismic Micro Technology Inc. Katy Freeway, Houston Texas, USA.
- Hydrological Institute, Sweden
- M/S Thies, Germany

PUNJAB UNIVERSITY COLLEGE OF INFORMATION TECHNOLOGY

○ **Research and Development**

In order to promote the research culture and activities, a research advisory committee has been constituted, which is responsible for setting up guidelines pertaining to MPhil and PhD degree programs, as well.

Furthermore, research labs in the following areas have been established:

- Computer Vision
- Parallel and Distributed Computing
- Internet of Things



- Artificial Intelligence and Multidisciplinary Research Lab
- Cloud Computing
- Image & vision Computing Lab
- Information systems lab / Natural Language Processing Lab
- Compiler & HPC Lab/ Imaging & Data Science Lab

The above mentioned labs are being used for conducting research, by the graduate students.

○ **Conferences, Seminars and Workshops, etc.**

Sr. No.	Name of Author	Conference Publication
1	Batool, W., Mubasher, M. M., Jaffry, S. W.,	Modeling Task Capability in Full Velocity Differential Model. In proceedings of 2 nd International Conference on Advancements in Computational Sciences (ICACS'19), Lahore, Pakistan, 2019, pp. 1-5. [BEST PAPER AWARD]
2	Mehwish Kyani	Conference Title: 2019 Third World Conference on Smart Trends in Systems Security and Sustainability (WorldS4), London, United Kingdom, 2019.
3	Dr. Waqar ul Qounain	Attended, International Conference on Advancements in Computational Sciences 2019 (ICACS'19), February 18 th – 20 th , University of Lahore, Lahore, Pakistan.

○ **Research Journals**

Name of Author	Title of Paper/Article
Sharaft, S., Nasar, Z., Jaffry, S	Data Mining for Smart Legal Systems, Computers and Electrical Engineering, vol. 78, Elsevier, B. V. 2019, pp. 328-342.
Nasar, Z., Jaffry, S. W., Malik, M. K.,	Textual Keyword Extraction and Summarization: State of the Art, Information Processing and Management: An International Journal, vol. 56, no. 6, Elsevier, V. B. 2019, page 102088.
Sadiq, U., Yousaf, M. M., Aslam, L., Aleem, M., Sarwar, S., Jaffry, S. W., NvPD:	Novel Parallel Edit Distance Algorithm, Correctness, and Performance Evaluation, Cluster Computing, The Journal of Networks, Software Tools and Applications, Springer Nature, Switzerland AG. 2019, pp. 1-16.
Iftikhar, A., Jaffry, S. W., Malik, K.,	Information Mining from Criminal Judgments of Lahore High Court, IEEE Access, vol. 7, IEEE. 2019, pp. 59539-59547.
Mubasher, M. M., Jaffry, S. W., Yousaf, M. M., Bajwa, I., Sarwar, S., Aslam, L.,	A Smart Integrated Environment for Vehicular Traffic Simulation, International Journal of Communication Systems, vol. 32 no. 13, 2019, John Wiley & Sons.
Mubasher, M. M., Jaffry, S. W.,	Modeling of Individual Differences in Driver Behavior, Journal of Ambient Intelligence and Humanized Computing, Springer International Publishing, 2019, pp. 1-14.
M. M. Mubasher, S. W. Jaffry, M. M. Yousaf, I. S. Bajwa, S. Sarwar, L. Aslam, ""	International Journal of Communication Systems (IF 1.278), vol. 32(13), pp. e4029, 2019
M. U. Sadiq, M. M. Yousaf,	Novel Parallel Edit Distance Algorithm, Correctness, and



L. Aslam, M. Aleem, S. Sarwar, S. W. Jaffry, "NvPD: Performance Evaluation", Cluster Computing (IF 1.851), 2019. https://doi.org/10.1007/s10586-019-02962-w	
Mustafa, S., Sattar, K., Shuja, J., Sarwar, S., Maqsood, T., Madani, S., Guizani, S.,	"SLA-aware Best Fit Decreasing Techniques for Workload Consolidation in Clouds," September 2019 IEEE Access vol. 90, pp. 1-11, 2019. https://doi.org/10.1109/ACCESS.2019.2941145 , ISSN:2169-3536
Ahmad, A., Ahmad, M., Habib, M. A., Sarwar, S., Chaudhry, J., Latif, M. A., Dar, S. H., Shahid, M.,	"Privacy based Medical Data Protection against Internal Security Threats in Heterogeneous Internet of Medical Things," International Journal of Distributed Sensor Networks, vol. 15, no. 9, pp. 1-12, 2019. https://doi.org/10.1177/1550147719875653 , ISSN: 1550-1477
Yasir, M., Habib, A., Sarwar, S., Faisal, N., Ahmad, M., Jabbar, S., "HARPP:	HARnessing Power of Power Sets to Mine Frequent Itemsets," Journal of Information Technology and Control, vol. 48, no. 3, pp. 415-431, 2019. https://dx.doi.org/10.5755/j01.itc.48.3.21137 , ISSN: 2335-884X
Habib, M. A., Sarwar, S., Adil, F., Latif, M. A., Faisal, N.,	"Performance Enhancement using Parallel Query Execution on Encrypted Data in the context of Database-as-a-Service (DaaS)," The Journal of Supercomputing, vol. 75, pp. 2269-2288, 2019.
Nasar, Zara, Syed Waqar Jaffry, and Muhammad Kamran Malik.	"Textual keyword extraction and summarization: State-of-the-art." Information Processing & Management 56, no. 6 (2019): 102088
Shahzad, Khurram, Safia Kanwal, Kamran Malik, Faisal Aslam, and Muhammad Ali.	"A word-embedding-based approach for accurate identification of corresponding activities." Computers & Electrical Engineering 78 (2019): 218-229 IF = 2.189
Iftikhar, Afnan, Syed Waqar Ul Qounain Jaffry, and Muhammad Kamran Malik.	"Information Mining From Criminal Judgments of Lahore High Court." IEEE Access 7 (2019): 59539-59547. IF= 4.098
Mehmood, Khawar, Daryl Essam, Kamran Shafi, and Muhammad Kamran Malik.	"Discriminative Feature Spamming Technique for Roman Urdu Sentiment Analysis." IEEE Access 7 (2019): 47991-48002. IF = 4.098
Tariq, Nida, Iqbaljazz, Muhammad Kamran Malik, Zubair Malik, and Faisal Bukhari.	"Identification of Urdu Ghazal Poets using SVM." Mehran University Research Journal of Engineering and Technology 38, no. 4 (2019): 935-944.
Rafique, Ayesha, Muhammad Kamran Malik, Zubair Nawaz, Faisal Bukhari, and Akhtar Hussain Jalbani.	"Sentiment Analysis for Roman Urdu." Mehran University Research Journal of Engineering & Technology 38, no. 2 (2019): 463.
M.H. Khan, M.S. Farid, M. Grzegorzek,	A generic codebook based approach for gait recognition," Multimedia Tools and Applications, pp. 1{24, 2019
Mehwish Kayani, Saeed-Ul Hassan, Naif Radi Aljohani, Darren Dancey, Leo Liu and Raheel Nawaz	Towards Interdisciplinary Research: A Bibliometric View of Information Communication Technology for Development in Different Disciplines



M. M. Mubasher, S. W. Jaffry, M. M. Yousaf, I. S. Bajwa, S. Sarwar, and L. Aslam,	"A smart integrated environment for vehicular traffic simulation," International Journal of Communication Systems, vol. 32, no. 13, p. e4029, 2019. Funded by National Center for Artificial Intelligence (NCI), University of the Punjab (PU)
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SCHOOL OF PHYSICAL SCIENCES

○ **R&D - An Overview**

School of Physical Sciences has state of the art equipments in the field of physical, biochemical and molecular sciences and list of these equipments is described below:

HPLC system, Gel electrophoresis system for DNA and Proteins, PCR machine, X-Ray Diffractometer, Gas Chromatograph, UV Transilluminator, Food and Beverage Analyzer, CHNS Analyzer, Gerhardt Kjeldatherm Digestion system and Vapodest distillation titration system, Temperature controlled incubators, Keithley Semiconductor Characterization System, High speed centrifuge, Karlfisher titration analyzer, Precision Impedance Analyzer, Automatic Weather Station, UV Spectrophotometer and Rotatory Evaporator.

All the above equipments are available for the researchers to carry out research in their designated fields free of charges. Standard operating procedures have been prepared to use these equipments. Currently conditions are being optimized to use these equipments for the analysis of various compounds. Moreover, School of Physical Sciences is looking forward to certain new and advanced equipments for carrying out research in Industrial Chemistry and Optics and Photonics (Physics). Funding, in this regard, is anticipated either from the Research Projects or it may be partially/fully asked from the University.

○ **Projects: Newly launched**

Project Title: Cellulose nanocomposites filled with carbon/metal oxide particles for optoelectronic/thermoelectric devices and wastewater treatment process (Submitted for PHEC consideration)

- Principal Investigator: Prof. Dr. Farah Kanwal
- Co-Principal Investigator(s): Dr. Uzma Hira, Dr. Shoomaila Imran, Dr. Muhammad Azeem Arshad
- Funding Agency/Organization: Punjab Higher Education Commission (PHEC), Lahore.

Project Title: Fabrication and investigation of pure and hybrid nanostructures for their possible implementation in device applications (Submitted for PHEC consideration)

- Principal Investigator: Dr. Syed Shahbaz Ali
- Co-Principal Investigator(s): Prof. Dr. Farah Kanwal, Dr. Muhammad Rizwan
- Funding Agency/Organization: Punjab Higher Education Commission (PHEC), Lahore.

Project Title: High Temperature Thermoelectric Properties of n-type Borides for Efficient Energy Harvesting (Pk-Fr PERIDOT Research Program: submitted for HEC consideration)

- Principal Investigator: Dr. Uzma Hira
- Co-Principal Investigator(s): Prof. Dr. Farah Kanwal
- Funding Agency/Organization: Higher Education Commission (HEC), Islamabad.



○ Publications

- Shamaila Iram, Muhammad Imran, Farah Kanwal, Shoomaila Latif, and Zafar Iqbal, Morphological, luminescence and gas adsorption studies of Pb (II)-MOFs, *Materials Research Express*, 6(2), 025103 (2019).
- Shamaila Iram, Muhammad Imran, Farah Kanwal, Zafar Iqbal, Farah Deebea, Qazi Javed Iqbal, Bismuth (III) based Metal Organic Frameworks: Luminescence, Gas Adsorption, and Antibacterial Studies, *Zeitschrift für anorganische und allgemeine Chemie*, 645(1), 50 (2019).
- Saira Ishaq, Farah Kanwal, Shahid Atiq Mahmoud Moussa, Dusan Losic, Synthesis of three phase graphene/titania/polydimethylsiloxane nanocomposite films and revealing their dielectric and impedance properties, *Ceramics International*, 2019.
- Farah Kanwal, Rabia Rehman, Hassaan Ahmad Warraich, Synthesis of novel Polyaniline composites with *Eriobotrya japonica* leaves for removal of Methyl Red dye from wastewater, *Bulgarian Chemical Communications*, 51(4), 2019 Reference No. 5131.
- Shamaila Iram, Muhammad Imran, Farah Kanwal, Farah Deebea, Qazi Javed Iqbal, Bismuth (III) based Metal Organic Frameworks: Luminescence, Gas Adsorption, and Antibacterial Studies, *Zeitschrift für anorganische und allgemeine Chemie*, 2019, 645, 50-56.
- Aisha Batool, Farah Kanwal, Sumreen Asim, Saira Riaz, Shahid Atiq, Shahzad Naseem, Muhammad Waheed Mushtaq, Zaka Ullah, Thermally stable Polypyrrole/Hemattie Composites with Tunable Dielectric and Magnetic Properties. *Polymer Science, Series A*, 61(1), 112-117, 2019.
- Saira Ishaq, Farah Kanwal, Shahid Atiq, Mahmoud Moussa, Dusan Losic, Synthesis of three phase graphene/titania/polydimethylsiloxane nanocomposite films and revealing their dielectric and impedance properties, *Ceramics International*, 45(7), Part A, 8713-8720, 2019.
- Khalid Javed, Farah Kanwal, Saadat Anwar Siddiqi, Shahid Atiq, Waheed Mushtaq, Khalil Ahmed, Facile Synthesis and Characterization of Wollastonite Polyindole Composites to Study their Electrical Conductivity Behaviour, Synthesis of Polyindole and its Composites, *Pakistan Journal of Scientific & Industrial Research Series A: Physical Sciences*, 62(2), 67-75.
- Y. Lv, A. Batool, Y. Wei, Q. Xin, R. Boddula, S. U. Jan, M. Z. Akram, L. Tian, B. Guo, J. R. Gong, Homogeneously Distributed NiFe Alloy Nanoparticles on 3D Carbon Fiber Network as Bifunctional Electrocatalyst for Overall Water Splitting, *ChemElectroChem*, 6 (2019) 2497-2502.
- Guancai Xie, Liming Guan, Linjuan Zhang, Beidou Guo, Aisha Batool, Qi Xin, Rajender Boddula, Saad Ullah Jan, Jian Ru Gong, Interaction-Dependent Interfacial Charge-Transfer Behavior in Solar Water-Splitting Systems, *Nano Letter*, 2019, 19, 2, 1234-1241.
- F. Kanwal, A. Batool, Facile fabrication of electrodeposited nickel-iron on carbon cloth as binder-free electrode for electrocatalytic oxygen evolution, *Glob-Fist* 2020.



- A. Batool, F. Kanwal, S. Ahmad, S. Asim, M. Saleem, Facile synthesis of Nickel-iron based electrocatalyst anodes for efficient oxygen evolution reaction, *Open Journal of Chemistry*, 3 (2020) 6.
- F. Kanwal, A. Batool, R. Akbar, S. Asim, M. Saleem, Green and facile synthesis of cerium doped Ni₃Fe electrocatalyst for efficient oxygen evolution reaction, 34 (2020) 353.
- M. Rizwan, Variation in Electronic and Optical Responses due to Phase Transformation of SrZrO₃ from Cubic to Orthorhombic Under High Pressure: A Computational Insight, *Indian Journal of Physics*, (2020), In revision.
- M. Rizwan, Influence of Mg and La inclusion on structural, electronic and optical properties of CaTiO₃: A computational insight, (2020), In revision.
- M. Rizwan, A computational study to explore the effects of copper doping concentration on phase stability, electronic band structure and optical properties of CsSrF₃ fluoro-perovskite, *Molecular Physics*, (2020) In revision.
- A. E. Yousfi, A. G. El Hachimi, M. A. Arshad, A. Benyoussef, A. El Kenz, Electronic magnetic and optical properties of Sm and C doped and co-doped TiO₂ through modified Becke Johnson approximation, *Journal of Superconductivity and Novel Magnetism*, (2020), In revision.
- M. A. Arshad, A novel kinetic approach to crystallization mechanisms in polymers, *Polymer Engineering and Science*, (2020), In revision.
- M. Rizwan, *Materials for Solar Cell Technologies I: Monocrystalline Silicon Solar Cells*, Materials Research Foundation, Pennsylvania (2020). DOI: 10.21741/9781644901090-6
- **Conferences, Seminars and Workshops, etc.**
School of Physical Sciences (Advanced Chemistry Lab) has developed research collaborations with scientific community of different departments, University of the Punjab. International collaboration is anticipated during the year 2021.

Punjab University Gujranwala Campus

- **R & D – An Overview**
The faculty members got their 13 research papers published in international journals. They presented their research papers in 3 international conferences.
- **Publications: Books/Edited**
 - Income Tax Law (Tax Year 2020), 5th Edition
 - Sales Tax Law (2020 Tax Year) 5th Edition
 - Introduction to Business Studies (2nd Edition)
- Research Journal*
 - Guo, Y., Schaik, T. van, Jhamat, N., Niazi, A., Chanrot, M., Charpigny, G., Valarcher, J.F., Bongcam-Rudloff, E., Andersson, G., Humblot, P., 2019. Differential gene expression in bovine endometrial epithelial cells after challenge with LPS: specific implications for genes involved in embryo maternal interactions. *PLOS ONE* 14, e0222081. <https://doi.org/10.1371/journal.pone.0222081>



- Jhamat, N., Niazi, A., Guo, Y., Chanrot, M., Ivanova, E., Kelsey, G., Bongcam-Rudloff, E., Andersson, G., Humblot, P., 2020. LPS-treatment of bovine endometrial epithelial cells causes differential DNA methylation of genes associated with inflammation and endometrial function. *BMC Genomics* 21, 385. <https://doi.org/10.1186/s12864-020-06777-7>
- Laskowski, D., Humblot, P., Sirard, M.-A., Sjunnesson, Y., Jhamat, N., Bage, R., Andersson, G., 2018. DNA methylation pattern of bovine blastocysts associated with hyperinsulinemia in vitro. *Mol Reprod Dev* 85, 599-611. <https://doi.org/10.1002/mrd.22995>
- Muzammil Khurshid: Ihsan ur Rehman Ghauri: Muhammad Riaz Mahmood. (2020). "Empirical Investigation of Awareness Level of Customers about Islamic Banking in Pakistan". *Al-Adwa*, 35(53), 247-258, Journal: Al Adwa, Date: 14-05-2020
- Muzammil Khurshid: Muhammad Riaz Mahmood. (2020). "A Comparative study of Adoption of Conventional Banking and Islamic Banking in Pakistan". *Hamdard Islamicus*, 43(3), 174-186, Journal: Hamdard Islamicus, Date: 30-09-2020
- Shagufta Naveed: Muzammil Khurshid: Muhammad Azeem. (2020). A Gender Based Analysis of awareness Level and Willingness regarding Islamic Banking Products and Services: An Evidence from Pakistan, *Journal of Islamic Thought and Civilization*, 10(1), 182-196, *Journal of Islamic Thought and Civilization*, 10(1), 182-196, *Journal of Islamic Thought and civilization*, Date: 26-6-2020
- Shagufta Naveed: Muzammil Khurshid: Muhammad Azeem (2020). "Factors Influencing the University Choice Decision of Business Students at Higher Education Level: A Case From Pakistan", *Hamdard Islamicus*, 43(2), 17-26, Journal: Hamdard Islamicus, Date: 30-6-2020
- The determinants of capital structure: Evidence from SAARC countries, Aamer Shahzad, Muhammad Azeem, Main Sajid Nazir, Zuan Vinh Vo, Nguyen T. M. Linh, *International Journal of Finance & Economics*, 11-09-2020
- Impact of CSR on Firm Value: The Moderating Role of Corporate Governance Affaf Asghar Butt, Aamer Shahzad, Jamshaid Ahmad, *Indonesian Journal of Sustainability Accounting and Management* vol 4, issue2
- Role of discretionary earning management in corporate governance-value and corporate governance-risk relationships, Affaf Asghar, Seemab Sajjad, Aamer Shahzad, Bolaji Tunde Matemilola, *Corporate Governance (Bingley)* Vol 20 Issue 4
- Hussain, A., & Qayyum, M. A. (2020). A study on the impact of Investors' sentiments on corporate investment efficiency through mediating effect of Credit Financing. *Paradigms*, (SI), 120-129.
- Chaudhry, N. I. Impact of customer-oriented strategy on financial performance with mediating role of HRM and innovation capability Naveed Iqbal Chaudhry, Iqra Aftab, Zainab Arif, Usman Tariq, Muhammad Azam Roomi.



- Safdar, R., Chaudhry, N. I., Mirza, S. S., & Yu, Y. (2019). Principal–principal agency conflict and information quality in China. *Journal of Financial Reporting and Accounting*.
- Amir, M., & Chaudhry, N. I. (2019). Linking environmental strategy to firm performance: A sequential mediation model via environmental management accounting and top management commitment. *Pakistan Journal of Commerce and Social Sciences (PJCSS)*, 13(4), 849-867.
- Rehman, S. U., Bhatti, A., & Chaudhry, N. I. (2019). Mediating effect of innovative culture and organizational learning between leadership styles at third-order and organizational performance in Malaysian SMEs. *Journal of Global Entrepreneurship Research*, 9(1), 36.
- Iqbal, N., Mushtaque, T., & Shahzadi, I. (2019). Business Angels and Investment Rejection Reasons: A Qualitative Study by Using Exploratory Sequential Mixed Method. *Journal of Business Strategies*, 13(1), 161.
- Chaudhry, N. I., & Amir, M. (2020). From institutional pressure to the sustainable development of firm: Role of environmental management accounting implementation and environmental proactivity. *Business Strategy and the Environment*, 29(8), 3542-3554.
- Chaudhry, N. I., Asad, H., & Hussain, R. I. (2020). Environmental innovation and financial performance: Mediating role of environmental management accounting and firm's environmental strategy. *Pakistan Journal of Commerce and Social Sciences (PJCSS)*, 14(3), 715-737.
- Chaudhary, M. A., Chaudhary, N. I., & Ali, A. Z. (2020). Enhancing university's brand performance during the COVID-19 outbreak: The role of ICT orientation, perceived service quality, trust, and student's satisfaction. *Pakistan Journal of Commerce and Social Sciences (PJCSS)*, 14(3), 629-651.
- Shehzadi, S., Nisar, Q. A., Hussain, M. S., Basheer, M. F., Hameed, W. U., & Chaudhry, N. I. (2020). The role of digital learning toward students' satisfaction and university brand image at educational institutes of Pakistan: a post-effect of COVID-19. *Asian Education and Development Studies*.
- Dr Naveed Iqbal Ch and Hafiza Safia Shaukat Impact of JD-R model on organizational outcomes: mediating role of work engagement and job burnout
- Katper, N. K., Chaudhry, N. I., Tunio, M. N., & Ali, M. A. (2020). Impact of Leadership Style and Organizational Culture on Organizational Commitment. *Sukkur IBA Journal of Management and Business*, 7(1), 92-106.
- Chaudhry, N. I., ali Mughal, S., Chaudhry, J. I., & Bhatti, U. T. (2020). Impact of consumer ethnocentrism and animosity on brand image and brand loyalty through product judgment. *Journal of Islamic Marketing*.
- Chaudhry, N. I. Factors affecting the employee retention in the banking sector of Pakistan.
- Chaudhry, N. I., Roomi, M. A., & Aftab, I. (2020). Impact of expertise of audit committee chair and nomination committee chair on financial performance of firm. *Corporate Governance: The International Journal of Business in Society*.



- Chaudhry, N. I., Roomi, M. A., & Dar, S. (2020). Barriers to financial product innovation in Islamic banks in Pakistan. *Journal of Islamic Accounting and Business Research*.
- Degirmen, S., ul Rehman, W., & Shaukat, S. Business excellence initiatives and performance of pharmaceutical sector of Pakistan: mediating role of business process capabilities.
- ul Rehman, W., Impact of Environmental Degradation, Financial Development and Human Capital on Agricultural Productivity: Insights from Pakistan
- ul Rehman, W., Knowledge Sharing and Performance: A Mediating Role of Innovation
- ul Rehman, W., Organizational Climate and Performance: Mediating Role of Affective Commitment, Knowledge Sharing Practices and Perceived Cost of Knowledge Sharing
- ul Rehman, W., A Nexus between Financial Leverage and Performance of Textile Sector of Pakistan
- Ghafoor, D., Mudasar, M., Mir, B. A., Saddique, D., Ahmed, M. A., & Munir, S. (2020). Relationship of Leader Member Exchange and Supervisor Feedback Environment in Textile Industry of Gujranwala, Pakistan. *International Journal of Management*, 11(9).
- Syeda Nadia Shah, Dr. Bushra Sajid, Dr. Muhammad Siddique, Muhammad Muddassar Khan Hope as a predictor of depression and stress among college students of Khyber Pukhtunkhwa Peshawar
- Waseem, M., Shah, T. A., & Hussain, A. (2020). Anglicization of Urdu Language: A Lexico Grammatical Analysis of Urdu Advertisements.
- Khan, L. A., Ali, G., Hussain, A., & Noreen, K. (2020). A Linguo-Cultural Analysis of COVID-19 Related Facebook Jokes. *Linguistics and Literature Review*, 6(2), 95-108.
- Iram, R., & Azhar, M. The Social Unadaptability of Eunuchs in South Asia with Reference to Mahesh Dattani's Play Seven Steps Around the Fire.
- **Conferences, Seminars and Workshops, etc.**
 - Impact of Work Related Social Media and Social Related Social Media Usage on Employee's in Role and Extra Role Performance: Mediating Role of Organizational Commitment (ICBC 2020)
 - Does Industry 4.0 Act as Key Driver? Investigate the Role of Technology Implementation and State Policies for SMEs Sustainable Performance (ICBC 2020)

Punjab University Jhelum Campus

- **Publications**
 - Muhammad Mudasar Ghafoor, Zahid Hussain, Muhammad Yasir Saeed, (2020), The impact of China-Pak Economic Corridor (CPEC) on Pakistan Stock Exchange (PSX), *Journal of Business and Social Review in Emerging Economies*, Volume 6, No. 4.
 - Dr. Muhammad Mudasar Ghafoor, Bilal Ahmad Mir, Dr. Muhammad Saddique, Mirza Ashfaq Ahmed and Sabira Munir, (2020), Relationship of Leader Member Exchange and Supervisor Feedback environment in textile industry of Gujranwala, Pakistan, *International Journal of Management (IJM)*, Volume 11, Issue 9, pp.1526-1539.



- Mirza Ashfaq Ahmad, Muhammad Anwar ul Haq and Muhammad Usman, Muhammad Mudasar Ghafoor, Muhammad Ahmad, (2020), Political Consumerism: The role of political socialization in the development of voting preferences of Pakistani voters, *International Journal of Management (IJM)*, Volume 11, Issue 8, pp.1895-1907.
- Kashif Hamid, Muhammad Mudasar Ghafoor, Muhammad Yasir Saeed, (2020), Emerging Markets and volatility spillover Effects: Empirical Evidence from Regional Emerging Economies of Pakistan, China, India and Bangladesh, *Global Economic Review*, Volume V, No. 1, pp.102-116.
- Kanwal Iqbal khan, Syed M. Waqar Azeem Naqvi, Muhammad Mudasar Ghafoor, Rana Shahid Imdad Akash, (2020), Sustainable portfolio optimization with Higher-Order Moments of Risk, *Sustainability*, Volume 12, Issue, 5, pp.1-15.
- Kashif Hamid, Zahid Hussain, Muhammad Mudasar Ghafoor, (2020), Abnormal Returns, Corporate Financial Policies and the Dynamics of Leverage: Empirical Evidence from Non-Financial Sector of Pakistan, *Review of Economics and Development Studies*, Volume 6, No. 1, pp. 153-165.
- Dr. Kanwal Iqbal Khan, Syed. M. Waqar Azeem Naqvi, Muhammad Mudasar Ghafoor, Gohar Nayab, (2020), Effect of Reward System on Innovative work behavior through temporary organizational commitment and proficiency: Moderating role of multiculturalism, *International journal of Management Research and Emerging Sciences*, Volume 10, No. 2. Pp 96-108.
- Rana Shahid Imdad Akash, Muhammad Mudasar Ghafoor, Nida Siddique, (2020), Impact of Macro Economic Conditions, Industry Attribute and Firms Related Variables on Capital Structure: A cross industry Analysis, *Journal of Business and Social Review in Emerging Economies*, Volume 6, No. 1, pp 287-302.
- Rana shahid Imdad Akash, Muhammad Mudasar Ghafoor, Navid Ahmed, (2020), Testing the Validity of Purchasing Power Parity Theory and Dynamics of Exchange Rate Behavior (Pakistan, China, Iran and Turkey), *Journal of Accounting and Finance in Emerging Economies*, Volume 6, No. 1, pp 127-144.
- Muhammad Ahmad ur Rehman, Zahid Hussain, Muhammad Mudasar Ghafoor, (2020), The impact of Service Quality Dimensions on Customer's Trust, *Journal of Business and Social Review in Emerging Economies*, Volume, 6 No. 2 pp. 557-563.
- Rana Shahid Imdad Akash, Iqbal Mahmood, Muhammad Mudasar Ghafoor, (2020), Anomalous Behaviour and Volatility in Stock Returns are still Live-Efficient Markets Hypothesis? : Perspective from Pakistan Stock Exchange (PSX). *Journal of Accounting and Finance in Emerging Economies*, Volume 6, No. 2, pp. 381-389.
- Khan, Mukaram Ali; Zubair, Syed Sohaib; Malik, Maria; "An assessment of e-service quality, e-satisfaction and e-loyalty". *South Asian Journal of Business Studies*. Vol. 8. Issue: 3. 2019. Pg. 283-302.
- Kalsoom, Zohra; Khan, Mukaram Ali; Zubair, Dr Syed Sohaib; "Organizational Culture as a Moderator between Paternalistic Leadership Style and Organizational Commitment: A Case of Banking Sector, Pakistan". *European Journal of Business and Management* Vol. 12. Issue: 1. 2020. Pg.41-54.



- Khan, Mukaram Ali; Rizvi, Muhammad; Zubair, Syed Sohaib; “Prospects for Online Grocery Shopping in Pakistan”. Governance and Management Review (GMR) Vol.4. Issue: 2. 2019. Pg. 76-91.
- Khan, Mukaram Ali; Khurram, Sobia; Zubair, Syed Sohaib; “Societal E-Readiness for E-Governance Adaptability in Pakistan”. Pakistan Journal of Commerce and Social Sciences. Vol. 14. Issue1. 2020. Pg. 273-299.
- Khan, Amna; Zubair, Syed Sohaib; Khurram, Sobia; Khan, Mukaram; “Service Quality Dimensions and Customer Satisfaction in online shopping: A customer’s perspective”. Journal of Applied Economics and Business Studies. Vol. 4. Issue.1. 2020. Pg. 53076.
- Faraz Ashraf. “The Curve of Cross Border Cartel Enforcement”. Challenges and Remedies in Global Business Environment. Vol 6 No 1 (2020): Journal of Accounting and Finance in Emerging Economies <https://doi.org/10.26710/jafee.v6i1.1052>
- Nabegha Mahmood & Dr. Noor ul Hadi. “Domestic Violence against Women: Statistical Analysis and Legislative Solutions”. European Online Journal of Natural and Social Sciences 2019; Vol.8, No 2 pp. 374-380 ISSN 1805-3602 www.european-science.com
- Nabegha Mahmood & Dr. Noor ul Hadi (2020). Intuition, Knowledge Management, & SECI in global perspectives and Iqbal's thought: A prospect for innovative organizational outcomes”. The Iqbal review, volume 6 Number 2, 111-138
- **Conferences, Seminar and Workshops, etc.**
 - Nagina Kanwal, “Writing and Identity in Higher Education: Perspectives of a Postgraduate Student”. National Conference in meeting Emerging Educational Trends. University of Jhang. 12-14 March 2020.
 - Relationship of leader Member Exchange and Supervisor Feedback Environment in Textile Industry of Gujranwala, Pakistan

INNOVATIONAL COMMERCIALIZATION

Operation of Office of Research, Innovation and Commercialization (ORIC)

- Assistant Director, ORIC-PU participated in One Day Workshop on “Special Econometrics” on August 20, 2019 at School of Economics, Quaid-i-Azam University, Islamabad.
- Assistant Director, ORIC-PU participated in Two Day Workshop on “Python for data Science” on August 31 to September 1, 2019 at Kinnaird College for Women, Lahore.
- ORIC in collaboration of HEC organized an event on “Roadshow on New R&D Framework of HEC” on November 23, 2019 in Al-Raazi Hall, University of the Punjab, Lahore. All the Vice Chancellors and Director ORICs/representative of all Universities of the Punjab participated in this event. The aim of this event was to play a pivotal role in promotion of qualitative research culture in the HEIs, helping address the significant societal issues and boost internationally compatible research for a sustainable and progressive research ecosystem in the country



- ORIC organized one-day workshop on “National Research Programme for Universities (NRPU)” on 19-12-2019 in Seminar Hall, Institute of Chemical Engineering & Technology, University of the Punjab, Lahore for the awareness of honorable faculty members and researchers.
- ORIC organized a Pre-Summit meeting for “9th Invention to Innovation Summit” Punjab 2020 on February 27th, 2020 at Committee Room, Centre for Undergraduate Studies, University of the Punjab, Lahore, in which Director/Manager ORICs from the various universities of Punjab and representatives of Chamber of Commerce across the punjab participate. The meeting was arranged to discuss economic needs of Punjab, corresponding S&T challenges and how innovation summit can contribute in innovation led economic growth.
- ORIC arranged a meeting of the Committee for Evaluation of Research Projects was held on 19-08-2020 in office of the Pro-Vice Chancellor (P.V.C.), University of the Punjab, New Campus, Lahore to discuss the progress of previously approved research projects and the plan for next fiscal year 2020-21.
- Prepared Data Book for ORIC/University Ranking for the Financial Year 2018-19, required by the Higher Education Commission (HEC).
- ORIC facilitated the award of 227 Research Projects to the University faculty members.
- ORIC facilitated faculty members to apply for National and International Research Projects. The detail for each projects are as follow:
 - Facilitated 152 applications for National Research Programs for Universities (NRPU), Higher Education Commission (HEC), out of which 6 were awarded.
 - Facilitated 63 applications for Grand Challenge Fund (GCF). Three faculty members called for final proposal presentation.
 - Facilitate 64 faculty members to apply for Punjab Higher Education Commission (PHEC) program for Punjab Innovation and Research Challenge Fund (PIRC).

- Impact of Quality Assurance in the University
- Quality Enhancement Cell
- Membership of Associations/ Networks
- Accreditation of Programmes from Relevant Councils



**CHAPTER****3****Quality Assurance****Quality Enhancement Cell**

The report contains two main sections:

1. Introduction of QEC and its key functions, roles and responsibilities
2. Major activities / achievements in 2019-20

Section A: Introduction to QEC and its Functions

University of the Punjab is the oldest seat of higher learning and has been contributing to the cause of quality of higher education in the country. With the gradual increase in students' enrolment, sustainability in quality education has become an emerging concern. Quality Enhancement Cell (QEC) was established in 2006 on the recommendation of Higher Education Commission Pakistan. It is committed to respond to changing global needs of quality assurance processes through effective and equitable participation of all who are engaged in higher education without discrimination by allowing the full use of their abilities for the benefit of the University and the society.

Since its establishment, QEC has been striving to perform its various roles such as carrying out institutional performance evaluation, teacher and course evaluations, accreditation of new degree programs, review of on-going Ph.D. and M.Phil./MS or equivalent programs, analysing the self-assessment reports in various disciplines, and organizing seminars and workshops on quality assurance.

QEC Functions

The functions of QEC are described as under:

1. Monitoring of the on-going quality initiatives in the University of the Punjab.
2. Updating/ preparing of University Portfolio Report (UPR) as per Financial Year, i.e. from 1st July, 2020 to 30th June, 2021.
3. Conducting Institutional Performance Evaluation (IPE) as per Financial Year.
4. Conducting Self-Assessment for the programs of Main Campus, Sub-Campuses and Affiliated Colleges/Institutes.
5. Accreditation of all programs offered by the university either at Main Campus, Sub Campuses or any affiliated college that fall under purview of any Accreditation Council need to be accredited/reaccredited from the respective council.
6. Self-review of Ph.D. and MS/M.Phil & Equivalent Programs of all departments/schools/institutes/colleges/centres of Main Campus and Sub Campuses.



7. Review of Ph.D. and MS/M. Phil & Equivalent Programs of all departments/faculties/institutes/colleges of Main Campus and Sub Campuses by HEC.
8. Submit cases to HEC for the New PhD and MS/M. Phil & Equivalent Programs launched after October, 2013 to avail No Objection Certificate (NOC).
9. Conduct awareness seminars/conferences/workshops on Quality Assurance within University and involving resource person/s from outside the University.
10. Encourage and assist institutes/colleges/departments/centres of the University to ensure quality in teaching and assessment in the various academic programs
11. Act as a liaison office between University and Government agencies such as HEC, PHEC, and other HEIs for quality assurance.
12. Develop National & International Linkages with External Quality Assurance Agencies such as Asia Pacific Quality Network (APQN), International Network for Quality Assurance Agencies in Higher Education (INQAHE), Pakistan Network of Quality Assurance in Higher Education (PNQAHE), etc.
13. Develop a viable and sustainable mechanism of quality assurance in the University and its affiliated colleges/sub-campus in the public and private sector in the country through establishment of Quality Enhancement Cells.

The detail of **key functions** of QEC is summarized as under:

a) Self-Assessment

QEC at PU conducts assessment of its academic programs following Self-Assessment Manual provided by HEC. The process of Self-Assessment of Academic Programs is carried out in various steps as described below:

Step-01: Preparation of Self-Assessment Report (SAR) by Program Teams

Step-02: Preparation of Assessment Team findings & Rubric Forms by Assessment Teams

Step-03: Preparation of Implementation Plans by Program Teams on the basis of weaknesses identified by AT-members in AT-Findings.

Step-04: Conduct Exit Meeting (QEC, Chairperson/Director/Principal, PT, AT, Faculty)

Step-05: Submit Executive Summary to Worthy Vice Chancellor by QEC

Note: Currently, QEC has been working on 68 SARs submitted by 23 departments of PU.

b) Teacher & Course Evaluation

QEC conducts faculty and students' surveys in each financial year to further enhance and review our quality standards and continuously improve at all levels. The purpose of these evaluations is to improve student learning and bring excellence in teaching skills of our teachers. It provides QEC with specific and reasonable plans for improvement of teachers' performance if the performance of the teacher requires improvement. In spring 2020, QEC has conducted Online Teacher and Course Evaluation in 22-departments of the University through Google Forms.



c) Accreditation

In order to maintain core standards of quality, QEC is enforcing its departments to get accreditation of all the applicable academic programs from relevant accreditation councils like National Business Education Accreditation Council (NBEAC), National Computing Education Accreditation Council (NCEAC), Pakistan Council of Architects and Town Planners (PCATP), Pakistan Engineering Council (PEC), Pakistan Bar Council (PBC), National Agriculture Education Accreditation Council (NAEAC), National Accreditation Council for Teacher Education (NACTE).

QEC contributed in the Zero Visit of National Agriculture Education Accreditation Council (NAEAC) to the Department of Agronomy, Institute of Agricultural Sciences, University of the Punjab, Lahore

d) Ph. D./MS/M. Phil & Equivalent Programs Review

M.Phil./MS/equivalent and PhD Review Programs are implemented through a Committee of quality experts from Quality Assurance Agency of Higher Education Commission, Pakistan in order to assure the compliance of HEC's minimum criteria/guidelines for PhD & MS/M.Phil. Level programs. The Quality Assurance Agency (QAA) of HEC is facilitating HEIs across the country to improve state of higher education provision through external as well as internal quality assurance mechanisms. M.Phil./MS/equivalent and PhD Review Program is one of the key such initiatives.

HEC visited University of the Punjab, Lahore on January 22-23, 2019 in order to review all the MS/MPhil and PhD programs of the university. During this visit 124-PhD and MS/MPhil/Equivalent programs were reviewed by the HEC. In response to this visit, HEC submitted its findings on March 11, 2019, in which 50-programs were stopped to take Further Intake and 07-programs were halted by the HEC. In order to re-open these, QEC has been striving hard to get these programs reopened by reviewing all. As a result of which on November 19, 2020, HEC has re-opened 25-programs of different department. Now, QEC is making efforts for the remaining programs so they may be reopened.

e) Institutional Performance Evaluation

QEC anticipates departments/faculties/institutes/colleges of the University to work towards achieving excellence through continuous improvements in their quality and effectiveness. In the regard, Self-Institutional Performance Evaluation (IPE) is carried out by QEC by considering its all Evaluation Standards as described below:

Table 1: Standards of IPE

Standard Number	Titles of Standards
Standard 1	Mission Statement & Goals
Standard 2	Planning & Evaluation
Standard 3	Organization & Governance
Standard 4	Integrity
Standard 5	Faculty
Standard 6	Students
Standard 7	Institutional Resources
Standard 8	Academic Programs & Curricula



Standard 9	Public Disclosure & Transparency
Standard 10	Assessment & Quality Assurance
Standard 11	Student Support Services

Section – B: Major activities/achievements in 2019-20 of QEC:

Titles of Activities	Date of Activity
Visit of Assessment Team in School of Biological Sciences (SBS) to review Self-Assessment Report (SAR)	25-10-2019
Visit of Assessment Team in Department of Microbiology & Molecular Genetics (MMG) to review Self-Assessment Report (SAR)	20-12-2019
Meeting to expedite re-opening of “Halted” and “Further Intake Programs”	08-01-2020
Meeting to expedite re-opening of “Halted” and “Further Intake Programs”	10-01-2020
Visit of QEC Team for Internal Audit of M.Phil and Ph.D. Programmes at Geographic of Information System.	19-02-2020
Visit of QEC Team for Internal Audit of M.Phil and Ph.D. Programmes at Department of Gender Studies	19-02-2020
Visit of QEC Team for Internal Audit of M.Phil and Ph.D. Programmes at Department of Polymer Engineering Technology	19-02-2020
Visit of QEC Team for Internal Audit of M.Phil and Ph.D. Programmes at Institute of Quality & Technology Management	20-02-2020
Visit of QEC Team for Internal Audit of M.Phil and Ph.D. Programmes at Centre for Clinical Psychology	20-02-2020
Visit of QEC Team for Internal Audit of M.Phil and Ph.D. Programmes at Institute of Agricultural Science (IAS)	20-02-2020
Visit of QEC Team for Internal Audit of M.Phil and Ph.D. Programmes at Centre for Applied Molecular Biology (CAMB)	21-02-2020
Visit of QEC Team for Internal Audit of M.Phil and Ph.D. Programmes at Institute of Geology	21-02-2020
Visit of QEC Team for Internal Audit of M.Phil and Ph.D. Programmes at Department of Social Work	24-02-2020
Visit of QEC Team for Internal Audit of M.Phil and Ph.D. Programmes at Institute of Chemistry	24-02-2020
Training Workshop on Re-opening of MS/M.Phil. and Ph. D. Program under QEC	06-03-2020
Meeting on Higher Education Reforms for PHEC	16-03-2020
Final Review Meeting of M.Phil./MS. And Ph.D. Programs at QEC	16-03-2020
Visit to Online Examination Centres of PU to ensure quality of Online Examination Mechanism	
a) Visit at Centre of Department of Electrical Engineering	06-08-2020
b) Visit at Centre of Institute of Quality & Technology Management	06-08-2020
c) Visit at Centre of PUCIT (New Campus)	10-08-2020
d) Visit at Centre of PUCIT (Old Campus)	12-08-2020
Meeting for Associate Degree Program (ADP)	31-08-2020
Meeting to expedite re-opening of “Halted” and “Further Intake Programs”	21-09-2020
Meeting to expedite re-opening of “Halted” and “Further Intake Programs”	22-09-2020



Faculty of Arts & Humanities

UNIVERSITY COLLEGE OF ART & DESIGN

- **Membership of Associations/ Networks**
 - It is mandatory for all of the teachers/architects to be a member Pakistan Council of Architects and town planners, (PCATP)
 - Programs are approved from academic council, PU.
- **Accreditation of Programmes from relevant councils**
Program are approved from Academic Council Punjab University and PCATP.

PAKISTAN STUDY CENTRE

- **Membership of Associations/ Networks**
Pakistan Vision, the research journal of the Centre has been part of indexing and abstracting services of two international and one national abstracting organizations. These are
 - International Political Science Abstracts (IPSA), Paris
 - International Bibliography of Social Sciences (IBSS), London
 - Asia Net Pakistan

Faculty of Behavioral & Social Sciences

INSTITUTE OF COMMUNICATION STUDIES

- **Membership of Associations/Networks:**
Institute of Communication Studies, University of the Punjab has membership of PEMRA and Paragon Academy of Performing Arts.

Faculty of Commerce

Hailey College of Banking and Finance

- **Impact of Quality Assurance**
We aim to ensure Quality Assurance of Academics and Administration in our College. Curriculum is updated from time to time to incorporate recent developments in Insurance and Banking Industry. Prof. Dr. Mubbsher Munawar Khan has introduced the Class Feedback system. Class timings and schedules are strictly observed and effective monitoring was done in respect of Online Classes. Teachers are motivated for excellent delivery of lectures and related pedagogy particularly in the Pandemic. Professionals from Industry are also invited to supplement practical applications.
- **Quality Enhancement Cell**
This Cell exists in the University of the Punjab and they are in a better position to submit reply in respect of 3.3 and 3.4. We keep up dating them in respect of our institution.



Faculty of Economics & Management Sciences

DEPARTMENT OF INFORMATION MANAGEMENT

- **Membership of Association/Network**

Faculty members are associated with various international associations such as CILIP, ASIS&T and American Library Association (ALA) as well as national association such as Pakistan Library Association (PLA) and PUILMAA.

INSTITUTE OF BUSINESS ADMINISTRATION

- **Membership of Associations/ Networks**

IBA is a member of the Association of Management Development Institutions in South Asia (AMDISA), Hyderabad, India.

INSTITUTE OF BUSINESS & INFORMATION TECHNOLOGY

- **Quality Enhancement Cell**

Quality Assurance Committee has already been formulated to monitor the implementation of the semester rules, course files and grading instruments and grading pattern and final results. Strict Implementation of course outlines, and study schema is being observed by the Quality Assurance Committee.

- **Accreditation of Programmes from relevant councils**

A committee of IBIT faculty is working on the Accreditation of BBIT(Hons) with National Computing Education Accreditation Council (NCEAC), National Business Education Accreditation Council (NBEAC), National Technology Council (NTC)

Faculty of Education

DEPARTMENT OF SPECIAL EDUCATION

- **Accreditation of programmes from relevant councils**

The Masters programme is in progress.

Faculty of Engineering & Technology

INSTITUTE OF CHEMICAL ENGINEERING & TECHNOLOGY

- **Impact of Quality Assurance in the University**

Teacher's and course evaluations are conducted on regular basis. Teachers have started circulating course outlines and completing courses in semester. Self Assessment process is working and reports are being generated.



- **Membership of Associations/Networks**
Faculty members as well as students are encouraged to get memberships of various professional organizations like PEC, PICHE and Pakistan Engineering Congress, AIChE, ACS etc.
- **Accreditation of Programs from relevant councils**
The program of B.Sc. (Engg.) Chemical Engineering at the Institute is duly accredited by the Pakistan Engineering Council and Higher Education Commission. Moreover, to maintain the quality standards, and to upgrade of the curriculum according to Pakistan Engineering Council and Higher Education Commission's requirements boards of studies and faculty meetings are a regular feature. Accreditation as per OBE (outcome base education) is under process.

INSTITUTE OF QUALITY & TECHNOLOGY MANAGEMENT

- **Accreditation of Programmes from relevant councils**
BS Industrial Engineering & Management program of this Institute is accredited by PEC.

SKILL DEVELOPMENT CENTRE

- **Impact of Quality Assurance**
SDC is following the guidelines provided by the HEC and Quality Enhancement Cell of University of the Punjab.

Faculty of Life Sciences

CENTRE FOR CLINICAL PSYCHOLOGY

- **Quality Enhancement Cell and Quality Assurance**
Quality Assurance Committee of CCP in liaison with the QEC, PU devised a policy for online classes during Covid-19 pandemic. It was ensured that faculty and students do not face any difficulty while shifting from regular to online classes. Faculty members also ensured that students had early access to all the course information, reading materials, library resources, audiovisual material, power point presentations, assignments, exam and testing schedules. All the official information was shared through WhatsApp official groups and email addresses.

Online classes were conducted with the help of Zoom and Google Meet application. All examinations were conducted timely on MOODLE software. Students were given mock trials for them to get oriented with the software and then final examinations were conducted. Viva voce examinations of Postgraduate students were conducted on Google Meet application and all results were timely notified. Courses and Teacher Evaluation were also conducted to ensure the teaching quality and to improve course content and teaching practices.
- **Accreditation of Programmes from relevant councils**
Curriculum and Courses Quality Assurance
Curriculum and courses of all programs at the CCP are first proposed at the Academic Committee of CCP. After feedback and approval from Academic Committee, the minutes of Academic Committee have to be approved by Board of Governors of CCP for endorsement. Lastly, they are presented at the Academic Council of the University for its final approval. Complete courses and curriculum of all programs are approved and implemented after following all codal formalities.



All assigned courses along with their time tables are sent to the respective course instructors at the start of each semester. The instructors then make lecture specifications of their respective courses on the basis of weekly plans to be followed throughout the semester. These course outlines, weekly plans and lecture specifications are shared with the students so that they may follow the schedule in its true spirit.

Online Readiness Model

Due to the Covid -19 pandemic, a policy was devised by the QEC team of CCP for the smooth flow of online classes and to ensure maximum efforts to minimize difficulties experienced faced by the faculty and students as they had to switch from regular classes to online system of classes. Faculty members made efforts to ensure that students had full and timely access through virtual and electronic means to all course information, reading materials, library resources, audiovisual material, power point presentations, assignments, classroom interactions, exam and testing schedules, and normal opportunities for off-class interaction with faculty members. The faculty members also provided all of the following information to the students ahead of time: the course introduction/outline the learning objectives the evaluation/ grading policy course prerequisites (if any) course requirement or rules (if any) the textbooks or other required readings the key dates the time and venue (physical or virtual) of class meetings the lesson plan (together with the assigned readings for each lecture) the assignments, and any PPTs or handouts to their respective class. Students who were unable to attend classes due to reasons such as unavailability of internet, family issues, health issues, etc were facilitated and given extra time by the respective course instructors. Active use of Whatsapp groups made for each class was done as through these channels, the faculty and students were kept informed of the academic strategies, plans, and timelines for virtual instruction.

Online Examination and Timely Result Intimation

In the wake of Covid-19 pandemic, to ensure maximum facilitation and safety of students and staff, CCP trained its faculty to take examinations of students on the MOODLE platform. All examinations were conducted timely on MOODLE so the precious time of students would not get wasted. Students were given mock trials to get oriented with the software and then final examinations were conducted. Viva Voce examinations of Postgraduate students were conducted through Google Meet and results of all programmes were timely notified.

Online Therapeutic facilities

CCP being the Centre for Excellence with regard to its training and providing services to the community at subsidized rates did not ignore the outbreak of psychological distress in the masses due to pandemic. For this purpose, CCP launched online therapeutic services-free of cost to all the clients who approached for psychological help.



DEPARTMENT OF MICROBIOLOGY & MOLECULAR GENETICS

- **Membership of Associations/Networks**
 - MMG Department is member of AT Waste management.
 - Dr Anjum Nasim Sabri is convenor of biosafety Bio-resource Committee, Punjab University, Lahore
- **Accreditation of Programmes from relevant councils**
 - Approval of all programmes (BS, MSc, MPhil, Ms Ph.D) from relevant bodies of the PU
 - Accreditation with biology in PPSC

DEPARTMENT OF ZOOLOGY

- **Membership of Associations/ Networks**
Prof. Dr. Javed Iqbal Qazi
 - Member, Implementation Committee for adopting preventive measures against any possible spread of Dengue Fever on both the Campuses of University of the Punjab, Lahore vide office order No. D/556/R, dated 16.07.2019.
 - Member, Adhoc Committee for the appointment of Wardens and Superintendents of the Hostels at University of the Punjab, Lahore, for the years 2019-2020 vide office order No. D/224/R, dated 04.03.2019.
 - Chairman, House Allotment Committee for Non-Teaching Staff of University of the Punjab, Lahore vide office order No. D/664/R, dated 02.09.2019.
 - Member, Management Committee for Department of Mosques, University of the Punjab, Lahore for a period of two years vide office order No. D/665/R, dated 02.09.2019.
 - Member, Board of Studies in the subject Medicine & Dentistry, University of the Punjab, Lahore vide office order No. D/5395/Acad, dated 29.07.2019.
 - Member, Board of Faculty of Life Sciences, University of the Punjab, Lahore vide office order No. D/4944/Acad, dated 24.07.2019.
 - Coordinator, BS (Hons) program, Department of Zoology, University of the Punjab, Lahore vide office order No. D/2256/Est-I, dated 17.07.2019.
 - Convener, Board of Studies in subject of Zoology, University of the Punjab, Lahore vide office order No. D/4470/Acad, dated 27.06.2019.
 - Member, Project Evaluation Committee, University of the Punjab, Lahore, vide office order No. 212/Dean.Life.Sci., dated 22.03.2019.
 - Member, HEC Needs Based Scholarship Program (2018-2019), vide office order No. 211/Dean.Life.Sci., dated 21.03.2019.
 - Member, Congress Organizing Committee, 39th Pakistan Congress of Zoology (International), Department of Zoology, Islamia College University, Peshawar.
 - Member, Organizing Committee for 15th National Honeybee Farming and Management Training Workshop (March 25-29, 2019), vide office order No. 900/Dean. Life. Sci, dated 07.03.2019.



- Member, Departmental Tenure Review Committee (DTRC) of the Centre for Undergraduate Studies, University of the Punjab, Lahore, vide office order No. D/614/Est.I, dated 26.02.2019.
- Member, Executive Council ZSP, Punjab, (2017-2020), The Zoological Society of Pakistan, School of Biological Sciences, University of the Punjab, Lahore.
- Member, Congress Executive Committee, The Zoological Society of Pakistan, School of Biological Sciences, University of the Punjab, Lahore.

Prof. Dr. Asmatullah

- Additional duty as Director Students Advisor
- Additional duty as Director ORIC
- Coordinator, Ph.D Regular Program
- Board of Studies in Zoology, University of the Punjab, Lahore
- Board of Faculty of Science, University of the Punjab, Lahore
- Examination Committee, B.Sc. Zoology, University of the Punjab, Lahore.
- Examination Committee, M.Sc. Zoology, University of the Punjab, Lahore.
- Admission Committee, M.Sc. Zoology classes, University of the Punjab, Lahore.
- Admission Committee, Ph.D. classes, Zoology.
- Disciplinary Committee, Zoology Department.

Prof. Dr. Nabila Roohi

- Member Board of Studies, Active Member, The Endocrine Society, 8401 Connecticut Avenue, Suite 900, Chevy Chase, Maryland, USA, December 2010 to present
- Member, International Society of Zoological Sciences, Datun Road, Beijing, China
- Member, Pakistan Society for the Advancement of Science, 1995 to present
- Member, Faculty Board of Life Sciences, University of the Punjab, 2005 to present
- Fellow, Zoological Society of Pakistan, 1992 to present
- Member, Pakistan Society of Biochemistry and Molecular Biology, 1994 to present
- Harbour Services Fellow of the PEP Foundation, 1997 to present
- Member, All Pakistan Women Association (APWA), 2000 to present
- Member, Curriculum Review Committee, Department of Zoology, Feb 2001 to present
- Member, Admission Committee, Department of Zoology, Feb 2001 to present
- Member, Examination Committee, Department of Zoology, Feb 2001 to present
- Member, Purchase Committee, Department of Zoology, Feb 2001 to present
- Member, Maintenance Committee, Department of Zoology, 2004 to present

Prof. Dr. Nadeem Sheikh

- Member HEC-TTS review Committee
- Expert/Advisor of LCWU Selection Board
- Member Board of Studies, Zoology, University of the Punjab.
- Member DDPC (Zoology), University of the Punjab.



- New Trends in Natural Sciences II: Public Health, Food Nutrition & Safety, Chaired Session, at LCWU, Lahore
- Performance Based Increment 2019
- Head Examiner for the Zoology Paper “C” (B.Sc.) 2019-20
- Member Board of Studies in Zoology Kinnaird College for Women Lahore.
- Member M.S./M. Phil admission committee 2019-20
- Member Admission Committee for M.Sc. 2019-20
- Member Examination Committee for B.Sc. (Hons.), M.Sc. and Ph.D.

Prof. Dr. Najma Shaheen

- Member of Board of Faculty of Life Science, PU Lahor
- Member DDPC Zoology
- Teaching of Genetics and Biostatistics for M.Sc Part-I
- Teaching of Applied Microbiology to M.Sc part-II
- Teaching Bacteriology and Applied Microbiology to BS 6th & 7th Semesters respectively
- Research guidance to BS, M.Sc, MS/M.Phil and Ph.D students
- Member Annual Sport Committee
- Paper Setter hematology (University of Sargodha)
- Examiner M.Phil thesis (UVAS, LCWU, UoS)
- Examiner Genetics and Biostatistics, UoS, Sargodha

Prof. Dr. Farah Rauf Shakoori

- Life Fellow, Zoological Society of Pakistan.
- Fellow, Pakistan Society of Biochemistry, 1991.
- Member, American Society for Cell Biology, 1994-1995.
- Member, Organization for Women in Science for the Developing World (OWSDW) since 12-07-2007-continuing under the umbrella of The World Academy of Science (TWAS).

Dr. Abida Butt

- Coordinator MS/M.Phil Morning/Evening Program
- Incentive Award, University of the Punjab, Lahore 2019
- Performance Evaluation Award, University of the Punjab, 2019
- Member Board of Studies, Zoology, University of the Punjab
- Member DDPC (Zoology), University of the Punjab.
- Advance increment at joining of Assistant professor on BPS and TTS
- Co-Chair sessions in Pakistan congress of Zoology
- Research guidance to BS, M.Sc, MS/M.Phil and Ph.D students

Dr. Zulfiqar Ali

- Incharge Zoological Museum
- Expert/Advisor of UVAS Selection Board
- Member Board of Studies, Zoology, University of the Punjab.
- Member Disciplinary Committee



- Member DDPC (Zoology), University of the Punjab.
- Performance Based Increment 2019
- Member Board of Studies UVAS
- Head Examiner for the Zoology Paper “A” (B.Sc.) 2019-20
- Member M.S./M. Phil admission committee 2019-20
- Member Admission Committee for M.Sc. 2019-20
- Member Examination Committee for B.Sc. (Hons.), M.Sc. and Ph.D.

Dr. Abdul Majid Khan

- Life Fellow, Zoological Society of Pakistan
- Member editorial board “Journal of Natural Sciences” government college university Faisalabad.
- Member Review Panel “Punjab University Journal of Zoology” University of the Punjab Lahore.
- Member Admission Committee for MS/M.Phil (In-Service) 2019, BS (4 years) Department of Zoology, University of the Punjab, Lahore, Pakistan.
- Coordinator M.Phil/Ph.D (Inservice Program)
- Member Punjab University Journal of Zoology
- Reviewer Journal of Animal and Plant Sciences
- Member fish feed procurement committee, fish research farm University of the Punjab Lahore
- Member of Admission Committees for M.Sc, Ph.D Admission/Interview Committee

Dr. Muhammad Akbar Khan

- Award of Performance based on increment + honorarium
- Certificate of excellence for the establishment of Dr. Abu Bakr Fossil Display & Research Centre, Zoology Department, University of the Punjab, Lahore

Dr. Chaman Ara

- Paper setter/ Head examiner for comprehensive examinations Annual and Fall 2018 by University of Education, Lahore.
- Focal Person of Annual report committee
- Member Sports committee zoology department, University of the Punjab, Lahore. (Ref# 547/UZ)
- Member Admission Committee, M. Sc Zoology(Regular) session, 2019-2020 ,University of the Punjab, Lahore. (Ref# 1211/UZ)
- Member, MS/M.Phil. (Regular) admission Committee (2019-20)
- BS 4 years program 6th semester 2018 to conduct practical exam.
- Appointed as Ext. Examiner, to evaluate M.Phil Thesis and to conduct Viva Voce
- Departmental data collection and sending to concerned bodies (ORIC / Planning and development, director student affairs, Registrar ,PASTIC, UNESCO, etc.
- Member Admission committee M.Sc morning/Evening program (2019)
- Member Admission committee MS/M.Phil Evening program (2019)



- Member Interview committee MS/M.Phil spring session 2019
- B.A/B.Sc Part-II Practical annual Examination (2019), Punjab College of Science, Lhr.
- B.A/B.Sc Part-I Practical annual Examination (2019), Govt. Postgraduate College for Women, Wahdat Road Lhr.
- Appointed as Ext.Examiner, to evaluate M.Phil Admission Committee, Ph.D, MS/M.Phil classes, Zoology University of the Punjab Lahore.
- Examination Committee, B.Sc. Zoology, University of the Punjab, Lahore.
- Examination Committee, M.Sc. Zoology, University of the Punjab, Lahore.
- Examiner/Paper setter University of Education Lahore.
- Incharge Hostel Affairs in University of the Punjab, Lahore. 6. Sports committee zoology department, PU, Lahore.

Dr. Hafiz Abdullah Shakir

- Member, Departmental Committee for Dengue Eradication/Awareness
- Member, University of the Punjab Monitoring Team-10 for M.A/M.Sc./B.Com examination-A/2014 Member, old Ph.D. Scheme admission Committee (Session 2014-onward)
- Member, BS Admission Committee 2019-20
- Member, Zoological Society of Pakistan
- Member, Fisheries Society of Pakistan

Dr. Bushra Nisar Khan

- Incentive Award 2019

INSTITUTE OF AGRICULTURAL SCIENCES

○ Membership of Associations/ Networks

Dr. M. Saleem Haider, Professor & Director

- Editor In-Chief for Mycopath Journal
- Member-Editorial Board for Journal of Life Sciences, USA
- Member-European Federation of Biotechnology
- Fellow-The Zoological Society of Pakistan
- Member Pakistan Phytopathological Society
- Member Myco-Phytopathological Society of Pakistan
- Member Bioinformatics.org
- Member-Pakistan Agricultural Research Scientists Association
- Member world Cucurbitaceae Scientists
- Reviewer: Journal of Microbiology and Antimicrobials
- Reviewer: Journal of Life Sciences, USA
- Reviewer: Pakistan Journal of Botany
- Reviewer: Sarhad Journal of Agriculture
- Reviewer: Pakistan Journal of Agricultural Sciences
- Reviewer: African Journal of Biotechnology
- Reviewer: African Journal of Agricultural Sciences



Dr. Uzma Bashir, Associate Professor

- American Society for Microbiology (AMS)
- Phytopathological Society of Pakistan (PPS)
- Myco-phytopathological Society of Pakistan (MYCOPS)
- Member of DDPC
- Member of Board of faculty of Life Sciences.
- Member of admission committee in service PhD program
- Member of departmental sports committee
- Conducting research to M.S. (Hons) and B.S. (Hons) students.

Dr. Arshad Javaid Associate Professor

- Pakistan Botanical Society (Life Member).
- Pakistan Phytopathological Society (Life Member)
- Weed Science Society of Pakistan (Life Member)
- Asian Allelopathy Society (Life Member)
- Bangladesh Botanical Society (2019, 2020)

Dr. Muhammad Nasir Subhani, Associate Professor

Pakistan Phytopathological Society

Dr. Rashid Mahmood, Associate Professor

- Member Soil Science Society of Pakistan
- Member zonal technical committee adaptive research farm Sheikhpura
- Member Pakistan Phytopathological Society

Dr. M. Bilal Chattha, Associate Professor

- Lifetime member the Pakistan Society of Agronomy
- Member American Society of Agronomy USA
- Member Crop Science Society of America USA
- Member International Society of Horticultural Sciences

Dr. Shahbaz Ahmad, Assistant Professor

- Entomology Society of America (ESA)
- Entomological Society of Pakistan (ESP)
- International Organization of Biological Control (IOBC)
- National Curriculum revision committee NCRC of Entomology (HEC)
- Young Entomological society (YES)
- National Academy of Young Scientist (NAYS)
- Pakistan Scientific and Technological Information Center (PASTIC)

Dr. Sajid Ali, Assistant Professor

- American Society of Agronomy
- Crop Science Society of America
- Soil Science Society of America
- German Society of Agronomy



Dr. Shinawar Waseem Ali, Assistant Professor

- Member Scientific Panel Punjab Food Authority
- Member BoS Department of Food and Human Nutrition, UVAS Lahore
- Member BoS Department of Food Science & Technology, UCP Lahore
- Member BoS Department of Food Science & Technology, Minhaj University Lahore (MUL)
- Member BoS School of Agricultural Sciences, University of Management & Technology (UMT) Lahore
- Member Qualification Development Committee (QDC) for development of Occupational Profiling and Competency Standards for Food Preservation Technology in year 2020

Mr. Nadeem Shad, Lecturer

- Life Member, Pakistan Phytopathological Society (PPS).
- Life Member, Pakistan society of Nematologists (PSN).
- Regular Member of Myco-phytopathological Society of Pakistan (MYCOPS).

Mr. Moazzam Anees, Lecturar

Pakistan Society of Horticultural Sciences

INSTITUTE OF APPLIED PSYCHOLOGY

○ **Membership of Associations/ Networks**

Sr. No.	Name of Faculty Member	Name of Association/ Networks/Committee
1.	Prof. Dr. Rafia Rafique	Member, American Psychological Association , America
2.	Prof. Dr. Rafia Rafique	Member, Canadian Psychological Association, Canada.
3.	Prof. Dr. Rafia Rafique	Member, Pakistan Psychological Association.
4.	Prof. Dr. Farah Malik	Fellowship of International Medical Sciences Academy (IMSA).
5.	Prof. Dr. Farah Malik	Regional Representative for South Asia, Society for Interpersonal Acceptance-Rejection, USA.
6.	Prof. Dr. Farah Malik	Associate Editor, Journal of Behavioral Sciences, IAP, PU, Lahore.
7.	Dr. Iram Fatima	Member, Pakistan Psychological Association.
8.	Dr. Iram Fatima	Consulting Editor, Pakistan Journal of Professional Psychology, research and practice published by Centre of Clinical Psychology, University of the Punjab
9.	Dr. Iram Fatima	Consulting Editor International Journal of Culture and Mental Health
10.	Dr. Iram Fatima	Associate Editor Journal of Behavioral Sciences published by Institute of Applied Psychology, University of the Punjab
11.	Dr. Fatima Kamran	Member, Pakistan Psychological Association
12.	Dr. Fatima Kamran	Member / Consulting Editor, Pakistan Journal of Professional Psychology Research and Practice
13.	Dr. Fatima Kamran	Consulting Editor, International Journal of Culture and Mental Health
14.	Dr. Fatima Kamran	Associate Editor, Journal of Behavioral Science
15.	Dr. Fatima Kamran	Member, British Psychological Society (BPS)
16.	Dr. Fatima Kamran	Member, Pakistan Association of Clinical Psychologists
17.	Dr. Saima Ghazal	Executive member of Pakistan Psychological Association, Pakistan (PPA)



18.	Dr. Saima Ghazal	Executive Member of Society for Muslim Psychological Association, Pakistan (MPA)
19.	Dr. Saima Ghazal	Student member of Society for Judgment and Decision Making (SIDM)
20.	Dr. Saima Ghazal	Student member of Human Factors and Ergonomics Society (HFES)
21.	Dr. Saima Ghazal	Member of Michigan Technological University chapter of Psi Chi
22.	Dr. Afsheen Masood	Member, Society for Rehabilitation of Disabled Children, Jail Road Lahore
23.	Dr. Afsheen Masood	Member, Pakistan Psychological Association
24.	Dr. Afifa Anjum	Member, Pakistan Psychological Association.
25.	Dr. Mujeeba Ashraf	Member, Pakistan Psychological Association
26.	Dr. Mujeeba Ashraf	Member, Pakistan Clinical Psychologist Association (PACP)

○ **Accreditation of Programs from relevant councils**

All Academic Programs and Courses of the Institute of Applied Psychology are accredited from the Statutory Bodies of University of the Punjab and the Higher Education Commission of Pakistan.

CENTRE FOR APPLIED MOLECULAR BIOLOGY

○ **Membership of Associations /Networks**

- Congress of Molecular Biology

○ **Accreditation of Programmes from relevant councils**

Programs and courses are accredited by statutory bodies of the University of the Punjab, Lahore and HEC.

Faculty of Sciences

CENTRE FOR INTEGRATED MOUNTAIN RESEARCH

○ **Membership of Association/ Networks**

Prof. Dr. Munawar Sabir

- Director, Centre for Integrated Mountain Research, P.U.
- Convener, Board of studies, Centre for Integrated Mountain Research, P.U.
- Convener, Advisory Committee, Centre for Integrated Mountain Research, P.U.
- Member, Mountain Forum-UK
- Member, Working Group on REDD+ Policy Dialogue, Lahore.
- Member, Population Association of Pakistan
- Member, world columnist Club, Lahore Pakistan
- General Secretary Punjab, World Columnist Club.
- Remained Members of South Asian Columnist Council, Lahore Pakistan
- Member, Pakistan Geographical Association
- Remained Member of Retract Club of Faisalabad Janubi, a chapter of Rotary Club International



- Remained member of Commonwealth Geographical Bureau
- Member Pakistan Geographical Association
- Member of Old Geography Students Association
- Remained Member of Pakistan Federation of Columnists

Engr. Dr. Muhammad Yaseen

- Member, Pakistan Engineering Council, Islamabad.
- Member, Pakistan Engineering Congress, Lahore
- Member, The Institution of Engineers, Pakistan (IEP)
- Member, Integrated Water Resource Management – IWRM, Water Network, Zürich Switzerland.
- Coordinator Departmental M.Sc., M.Phil and Ph.D Programs, Centre for Integrated Mountain Research, University of the Punjab, Lahore-Pakistan.
- Incharge Student Affairs, Centre for Integrated Mountain Research, University of the Punjab, Lahore-Pakistan.
- Examination Coordinator, Centre for Integrated Mountain Research, University of the Punjab, Lahore-Pakistan.
- Focal Person, Office of Research Innovation and Commercialization (ORIC), University of the Punjab, Lahore-Pakistan.
- Focal Person, Quality Enhancement Cell (QEC), University of the Punjab, Lahore-Pakistan.
- Member, Board of studies, Centre for Integrated Mountain Research, University of the Punjab, Lahore-Pakistan.
- Member, Department Doctoral Program Committee (DDPC), Centre for Integrated Mountain Research, University of the Punjab, Lahore-Pakistan.
- Coordinator, Departmental Seminar Series, Centre for Integrated Mountain Research, University of the Punjab, Lahore-Pakistan.
- Member, Purchase Committee, Centre for Integrated Mountain Research, University of the Punjab, Lahore-Pakistan.
- Incharge Hostel Affairs, Centre for Integrated Mountain Research, University of the Punjab, Lahore-Pakistan.
- Assistant Superintendent, Boys Hostel No. 08, University of the Punjab, Lahore, Pakistan.

Dr. Syed Umair Shahid

- Member, Department Doctoral Program Committee (DDPC), Centre for Integrated Mountain Research, University of the Punjab, Lahore-Pakistan.
- Member, scholarship committee, Centre for Integrated Mountain Research, University of the Punjab, Lahore-Pakistan.

Ms. Saira Batool

- Member, Board of Faculty Science, University of the Punjab, Lahore-Pakistan.
- Member, Board of studies, Centre for Integrated Mountain Research, University of the Punjab, Lahore-Pakistan.



- Member, Purchase Committee, Centre for Integrated Mountain Research, University of the Punjab, Lahore-Pakistan.
- Member, scholarship committee, Centre for Integrated Mountain Research, University of the Punjab, Lahore-Pakistan.

Ms. Bushra Zia Khan

- Member, Purchase Committee, Centre for Integrated Mountain Research, University of the Punjab, Lahore-Pakistan.
- Member, scholarship committee, Centre for Integrated Mountain Research, University of the Punjab, Lahore-Pakistan.
- Coordinator, Departmental Seminar Series, Centre for Integrated Mountain Research, University of the Punjab, Lahore-Pakistan.

Ms. Nayab Alam

- Coordinator, Departmental Seminar Series, Centre for Integrated Mountain Research, University of the Punjab, Lahore-Pakistan.
- Focal Person, Student career counseling, Centre for Integrated Mountain Research, University of the Punjab, Lahore-Pakistan.
- Member, scholarship committee, Centre for Integrated Mountain Research, University of the Punjab, Lahore-Pakistan.

○ **Accreditation of programmes from relevant councils**

All academic programs and courses offered by the CIMR are duly accredited from the relevant bodies of the University of the Punjab, Lahore-Pakistan.

COLLEGE OF EARTH & ENVIRONMENTAL SCIENCES

○ **Membership of Associations/ Networks**

Prof. Dr. Sajid Rashid Ahmad

- Member, Board of Directors, Tourism Development Corporation of Pakistan.
- Focal Person, on the “Promoting Acceptance and Peace Building” campaign at the University of the Punjab, Lahore in collaboration with the Centre for Health and Gender Equality (CHANGE).
- Member, Expert Committee in Climate Change, Drought Hazard Assessment, GIS & Remote Sensing, Training Modules Development & Facilitation Specialist of the Provincial Disaster management Authority, Government of the Punjab, Lahore
- Member, Board of Studies for Environmental Sciences, COMSATS Institute of Information Technology, Islamabad.
- Member, Pakistan Association for the Advancement of Science, Lahore, Pakistan.
- Member, HEC Curriculum Revision Committee in Remote Sensing & Geographical Information System
- Member, Pakistan Association for the Advancement of Sciences (Punjab Council), Session 2017-2020.
- Secretary, HEC Curriculum Revision Committee in Water Management
- Member, Stratigraphic Committee of Pakistan



- Member, National Geological Society, Pakistan
- Member, Punjab Geological Society, Pakistan
- Member, Ethical Committee for Issuance of Clearance Certificates after evaluation of i). Research Projects before submission to Funding Agencies (National / International); ii). Publications for Research Journals, and iii). Research related matters of BS/ MS / M.Phil. / PhD
- Member, Petition Committee, University of the Punjab, Lahore
- Member, Search Committee for the Appointment of Member (Technical) in Punjab environmental Tribunal, Lahore
- Member, Main Purchase & Indent Committee, University of the Punjab, Lahore
- Chairman, Research Team for Assessment of Brick Kilns Emissions in Punjab and Comparison between old, new and modified Technology in Brick Kilns, constituted by the Environmental Protection Department, Government of the Punjab, Lahore.
- Convener, Committee for Redresses of the grievances/ complaints of the Students in Zone-4 of the Punjab University Quaid-i-Azam Campus, Lahore
- Member, Committee constituted by the Syndicate to examine the Issue regarding construction of new 132 KV Grid Station in the University of the Punjab, Lahore
- Member, Committee to inculcate integrity, civility and character building amongst the students, University of the Punjab, Lahore.
- Member, Committee for Identification of Land, PC-I Preparation, Revenue Generation and Fund Raising for the Construction of Building as per requirements of the Confucius Institute, University of the Punjab, Lahore.
- Member, Investment Committee, University of the Punjab, Lahore
- Member, Appointment Committee of the Board of Paper Setters & Head Examiners of the Board of Intermediate and Secondary Education, Gujranwala.
- Member, Committee Regarding Grant of Advance / Annual Increment and Performance Based Increment / honorarium to the Faculty Members working under Tenure Track System at the University of the Punjab, Lahore.
- Member, Committee to Plan and Organize an International Conference on Biological Science, Chemistry and other related fields in collaboration of the Royal Society of Chemistry UK and with the support of Higher Education Commission, Islamabad.
- Member, Committee to Resolve the issues Pertaining to i). Several Programs offered by the University which are overlapping each other and various departments offering programs that are in the domain of other departments and ii). Restructuring of several faculties / departments.
- Member, Selection Board Committee for the selection of Assistant Professor (BPS-19/TTS) in the subject of Soil Science in the Department of Environmental Sciences, GC University Faisalabad.
- Member, Budget Committee for the year 2019-2020, University of the Punjab, Lahore



- Member, Committee constituted by the Vice Chancellor to prepare the SOPs regarding promotion of Faculty members under BPS and TTS to the next Cadre from due date etc.
- Member, Committee to prepare the SOPs regarding promotion of P.U. Faculty Members under BPS and TTS to the next cadre.
- Member, Election Commission for Registered Graduate for Senate University of the Punjab, Lahore
- Member, Committee for Rationalization of existing teaching and non teaching posts keeping in view of student / teacher / employees ratios of the Punjab, University Lahore for the budget estimates 2020-2021
- Elected Member, Punjab University Syndicate
- Member, Advanced Studies and Research Board (ASRB), P.U., Lahore.
- Member, Departmental Technical Review Committee (TTS Faculty) for the Subject of Environmental Sciences & Engineering, at the Government College University, Faisalabad.
- Member, Board of Faculty of Science, University of Okara
- Member, Medical Advisory Committee of the University of the Punjab, Lahore
- Convener, Resource Generation Committee, University of the Punjab, Lahore
- Member, Research paper Evaluation Committee of the International Journal of Economic and Environmental Geology (IJEEG) ISSN: 2223-957X
- Member, Ahoc Committee to discharge the functions of the Board of Studies in Integrated Mountain Research, P.U., Lahore.
- Member, Bioethics Committee to issue Clearance certificate to all applications sent to HEC under National Research Program for Universities (NRPU) Projects.
- Convener, Board of Studies in Earth and Environmental Sciences, College of Earth and Environmental Sciences, P.U., Lahore
- Convener, Departmental Tenure Review Committee (DTRC) of the College of Earth and Environmental Sciences, P.U., Lahore
- Convener, Departmental Doctoral Program Committee (DDPC) of the College of Earth and Environmental Sciences, P.U., Lahore
- Member, Committee to Ascertain the Reasons of Dense Fog / Smog During the Winters in Lahore
- Member, Board of Studies for Sustainable Development Study Centre, Govt. College University (GCU), Lahore.
- Member, Committee to rationalize the policy guidelines for Dual / Double / Joint degree programs in Pakistan.

Prof. Dr. Nadia Jamil

- Life Time Member of Chemical Society of Pakistan
- Life Time Member of Environmentalist Association
- Member of Research Group on Environmental Analytical Chemistry at University of Zaragoza, Spain



Dr. Abdul Qadir

- Member, Freshwater Macro-International Society
- Member Pakistan Freshwater Fish Assessment, IUCN Species Survival Commission
- Member, Pakistan Wildlife Foundation
- Member, Pakistan Congress of Zoology

COLLEGE OF STATISTICAL & ACTUARIAL SCIENCES

○ **Membership of Associations / Networks**

- All the faculty members of the College of Statistical and Actuarial Sciences, University of the Punjab, Lahore are members of 'Pakistan Statistical Association'.
- Ms. Nadia Saeed, Assistant Professor is member of Old Ravian Union, Pakistan.
- Mr. Ghulam Nabi, Lecturer is the member of Institute of Actuaries, U.K.
- Mr. Ghulam Nabi, Lecturer is the member of Pakistan Society of Actuaries, Pakistan.
- Mr. Ghulam Nabi, Lecturer is the member of Society of Actuaries, India.

○ **Accreditation of Programmes from relevant councils**

All academic programs offered by the College of Statistical and Actuarial Sciences, University of the Punjab, Lahore are duly accredited from the relevant bodies of Punjab University.

DEPARTMENT OF GEOGRAPHY

○ **Membership of Associations/ Networks**

- Pakistan Geographical Association
- International Geographical Union

DEPARTMENT OF PHYSICS

○ **Membership of Associations/ Networks**

Pakistan Institute of Physics (PIP)
Al Khawarizmi Science Society, Pakistan.

○ **Accreditation of Programmes from relevant councils**

All academic programs offered by the Department of Physics, University of the Punjab, Lahore, are duly accredited from the relevant bodies of Punjab University.

DEPARTMENT OF SPACE SCIENCE

○ **Accreditation of Programmes from relevant councils**

All academic programs offered by Department of Space Science, University of the Punjab, Lahore are duly accredited from the relevant bodies of Punjab University.

PUNJAB UNIVERSITY COLLEGE OF INFORMATION TECHNOLOGY

○ **Accreditation of Programmes from relevant councils**

NCEAC category W (for three years) awarded for the following degree programs:

- BS Computer Science
- BS Software Engineering
- BS Information Technology

- Faculty Development Programmes (MS/ PhD Local + Foreign)
- Returned Scholars
- Present Scholars
- Pre-service and in-service Professional Development Programmes
- Achievements of Foreign Faculty



**CHAPTER****4****Faculty Development****Faculty of Arts & Humanities****UNIVERSITY COLLEGE OF ART & DESIGN**

- **Present Scholars:** 03

DEPARTMENT OF ARCHAEOLOGY

- **Faculty development programmes (MS/ PhD local + foreign)**
03 Faculty Members are enrolled in PHD Programme and have completed their course work.

DEPARTMENT OF ENGLISH LANGUAGE & LITERATURE

- **Present Scholars**
 - Ms. Ayesha F. Barque (Assistant Professor) Department of English Language & Literature, University of the Punjab, Lahore
 - Ms. Syeda Momina Masood (Lecturer) Department of English Language & Literature, University of the Punjab, Lahore
- **Pre-Service and In-Service Professional Development Programmes**
 - Postgraduate Diploma in English Language Teaching (PGD-ELT)
 - Diploma in Linguistics
 - Spoken English Certificate Course

DEPARTMENT OF HISTORY & PAKISTAN STUDIES

- **Faculty development programmes (MS/ PhD local + foreign)**

S.No.	Name	University	Status	Foreign/Local
1	Ghazi Muhammad Abdullah	Punjab University	Continue	Local

- **Present Scholars**
67 Scholars of M.Phil & Ph.D

DEPARTMENT OF PHILOSOPHY

- **Faulty development programmes (MS/ PhD local + foreign)**

S. No	Name of Faculty Member	Programme	Name of University	Foreign/Local
1.	Muhammad Jawwad Assistant Professor	Doing PhD	University of the Punjab, Lahore	Local
2.	Ms Sehreen Far Bukhari Assistnat Professor	Doing PhD	University of Karachi, Karachi	Local
3.	Mr. Muhammad Rasheed Arshad Lecturer	Doing PhD	University of Karachi, Karachi	Local



○ **Returned Scholars**

One faculty member: Mr Saad Malook has returned from the University of Canterbury Christchurch New Zealand and he is near to complete his doctoral degree.

○ **Present Scholars**

There are 13 PhD and 10 MPhil scholars are enrolled with the Department.

PAKISTAN STUDY CENTRE

○ **Pre-service and in-service professional development programmes**

Mr. Syed Karim Haider (Former Lecturer/SRF) was promoted as Assistant Professor after successful completion of his PhD in Political Science.

DEPARTMENT OF FRENCH

○ **Faculty development programmes**

As Resource person, DrSalehaNazeer conducted various **Teachers' Training sessions** for freshly inducted teachers at the Department to groom them about:

- Professional ethics,
- Designing a comprehensive Course Outline and identifying Learning Outcomes,
- Using Effective Teaching Strategies, Evaluation and Assessment methods, etc.
- Shifting from On Campus Class mode to Online / Virtual Class mode : exploring zoom session for teachers.
- Dr. Saleha Nazeer also conducted Teachers Training sessions on effective evaluation of online semester studies. These training sessions focused the following aspects:
 - Open Book Exam Strategies
 - MCQ developing techniques in the field of French Studies

○ **Pre-service and in-service professional development programmes**

- Dr Saleha Nazeer and Ms Sabrina A. Rassool attended a workshop on "Faculty Training on Moodle LMS", July 2020, EEG, PU.
- Dr Saleha Nazeer and Ms. Sabrina A. Rassool attended a virtual Conference by QEC on "Qulaity Assurance in Higher Education Institutions – Challenges & Reforms", December 2020, PU.

Faculty of Behavioral & Social Sciences

DEPARTMENT OF POLITICAL SCIENCE

○ **Present Scholars**

Shabbir Ahmad Khan (Assistant Professor)

DEPARTMENT OF SOCIAL WORK

○ **Faculty development programmes (MS/PhD local + foreign)**



- Ms. Sonia Omer, Assistant Professor completed her Ph.D. from Department of Social Work, University of the Punjab, Lahore

○ **Present Scholars**

- The following faculty member is enrolled in Ph.D. Programme at Department of Social Work, University of the Punjab, Lahore.

Sr. No	Name and Designation	Remarks
1.	Mr. Muhammad Arshad, Assistant Professor	Writing Ph.D. Thesis

- The following faculty member is enrolled in Ph.D. Programme at Department of Social Work, University of Peshawar.

Sr. No	Name and Designation	Remarks
1.	Ms. Bushra Naheed, Assistant Professor	Writing Ph.D. Thesis

INSTITUTE OF SOCIAL & CULTURAL STUDIES

- **Faculty development programmes** (MS/ PhD local + foreign)

One Faculty member, Fauzia Sadaf is abroad for her Ph.D. in Sociology.

Faculty of Commerce

HAILEY COLLEGE OF BANKING & FINANCE

- **Faculty Development Programs** (MS / Ph.D Local + Foreign)

Mrs. Farah Naz Naqvi and Mr. Zargham Ullah Khan are in final stages of her/his completion and is expected to return on commencement of new academic year. One Assistant Professor Mr. Iftikhar Ahmed and two lecturers Mr. Asad Ejaz Sheikh and Mrs. Sadia Ahmed have been enrolled for Ph.D at Malaysia. Mrs. Fizza Rizvi is enrolled in Ph.D Program at FAST University, Lahore. Mrs. Rubina Bashir, Lecturer has proceeded to Sri Lanka for her Ph.D studies.

- **Returned Scholars**

One of our faculty members Mr. Ahmed Muneeb Mehta has completed his Ph.D from Turkey and joined back the College. However the other faculty members will return to Pakistan upon completion of their Ph.D.

- **Present Scholars**

Five (05) Scholars are Pursuing Ph.D abroad.

Two (02) Scholars are pursuing Ph.D locally.

- **Pre-Service and In-Service Professional Development Programs**

Faculty Members have completed Faculty Development Program at University of the Punjab.

HAILEY COLLEGE OF COMMERCE

- **Faculty Development Programme**

Our faculty members are enrolled Ph.D programs at different Foreign and local universities



Faculty of Economics & Management Sciences

DEPARTMENT OF ECONOMICS

○ **Faculty Development programs (MS/ PhD local + foreign)**

One of the faculty member named Ms. Fareena Noor Malhi has successfully completed her Ph.D. in August, 2020. She was recipient of Fulbright scholarship for Ph.D. studies.

○ **Present Scholars**

Name	Designation	Details
Abid Raza Khan	Assistant Professor	He is pursuing Ph.D. studies at New School for Social Research, New York, USA.
Hafiz Ghulam Mujaddad	Lecturer	He is Ph.D. scholar at Department of Economics, PU and currently working on Ph.D. dissertation.
Ambreen Sarwar	Lecturer	She is Ph.D. scholar at Department of Economics, PU and currently working on Ph.D. dissertation.

INSTITUTE OF ADMINISTRATIVE SCIENCES

○ **Faculty Development**

Dr. Tayyeb Ali Khan has completed his PhD from this institute while Dr. Samia Khalid has joined back after completing her PhD from UIB (University of International Business and Economics) on a Chinese government scholarship.

INSTITUTE OF BUSINESS ADMINISTRATION

○ **Faculty Development Programs (MS/PhD local + foreign).**

Dr. Naseem Bukhari, Assistant Professor-IBA has successfully completed her Ph.D in Islamic Finance from International Centre for Education in Islamic Finance (INCEIF), Malaysia (The Global University of Islamic Finance), Kuala Lumpur, Malaysia on 15 December 2020.

○ **Present Scholars**

- Mr. Muddassir Latif Rawn, Assistant Professor is pursuing his Ph.D from Superior University, Lahore.
- Mr. Yasir Ashraf, Lecturer is pursuing his Ph.D from COMSATS University, Islamabad, Lahore Campus, Lahore.
- Ms. Qudsia Naseer, Lecturer is pursuing her Ph.D from University of Malaya, Kuala Lumpur, Malaysia.
- Ms. Wajiha Kazim, Lecturer is pursuing her Ph.D from University of Nottingham, UK.
- Ms. Masooma Iftikhar, Lecturer is pursuing her Ph.D from Australian National University, Australia.



INSTITUTE OF BUSINESS & INFORMATION TECHNOLOGY

- **Faculty development Programs (MS/ PhD local + foreign)**
 - There are 13 regular full-time faculty members working in IBIT (9 Assistant Professors and 4 Lecturers).
 - Seven (4) faculty members are pursuing their PhD from abroad and Two (02) are enrolled in PhD programs from Pakistan.
- **Returned Scholars**
2 Scholars have returned after successful completion of their PhD.
- **Present Scholars**
Currently IBIT has 2 PhDs in Management, Finance and Bioinformatics areas.
- **Pre-service and in-service professional development programmes**
Faculty, both adjunct as well as regular, has been trained to deliver online lectures through Zoom, Google Meet along with online submission of Grading Instruments through Google Class.

Faculty of Education

DEPARTMENT OF SPECIAL EDUCATION

- One of the faculty members Dr. Samina Ashraf won Indigenous and almost completed Post-Doctoral Fellowship for the fiscal year 2019-20 by PHEC.

INSTITUTE OF EDUCATION & RESEARCH

- **Faculty development programmes (MS/ PhD local + foreign)**
 - Dr. Abdul Majid Khan, Lecturer, IER completed his Ph.D in Education from University of Lahore
 - Dr. Abir Hassain Naqvi, Lecturer, IER completed his Ph.D in Education from University of Lahore

Faculty of Engineering & Technology

DEPARTMENT OF POLYMER ENGINEERING & TECHNOLOGY

- **Returned Scholars**
Currently the department has 06 regular Ph.D faculty members recruited after completion of their Ph.D. Therefore, no faculty member has been sent abroad for Faculty Development Programme (FDP). Therefore, there is no returned scholars in the department.
- **Present Scholars**
Two Research Scholars have been appointed on 9th December 2020
- **Pre-service and in-service professional development programmes**
The faculty attended no Pre-service and in-service professional development program during this year. More than half of the year was wasted by COVID pandemic, which hindered the training opportunities as well.



DEPARTMENT OF METALLURGY AND MATERIALS ENGINEERING

The University has adopted a regular scheme for Faculty Development in collaboration with HEC. The scheme provides the opportunity to all regular faculty members to enhance their qualifications by joining suitable higher degree courses (M.Phil./Ph.D.) at home or abroad. The University has allocated 75.00 million rupees in this budget to meet the expenses in this head.

INSTITUTE OF CHEMICAL ENGINEERING & TECHNOLOGY

- **Faculty Development programs (MS/PhD Local + Foreign)**
Currently two (02) faculty members are pursuing their PhDs.
- **Present Scholars**
Two faculty members are enrolled in PhD studies in foreign universities, out of which one is getting Faculty development scholarship awarded by Punjab University and other two got their PhD grants from Higher Education Commission and foreign universities.
- **Pre-service and in-service professional development program**
The fresh appointee faculty members are nominated to attend a one-month faculty development program conducted by the University of the Punjab. This year, almost all the faculty members attended "Indigenous On-Campus Training Program for Management Team" which was organized by University of the Punjab, Lahore in collaboration with Higher Education Commission, Islamabad.

DEPARTMENT OF ELECTRICAL ENGINEERING

- **Return Scholars:** 03
- **Present Scholars:** 05

INSTITUTE OF QUALITY AND TECHNOLOGY MANAGEMENT

- **Faculty Development Programmes (MS/PhD local + foreign).**
Ms. Faryal Jalil awarded a PhD Degree in June 2020
- **Returned Scholars**
Ms. Mariam Altaf Tarar is pursuing her PhD degree from reputed, Malaysian University.
- **Present Scholars**
Engr. Tayyiba Rashid and Engr. Sana Hassan are pursuing their PhD degree from UET

Faculty of Law

PUNJAB UNIVERSITY LAW COLLEGE

- **Faculty Development programmes (MS/Ph.D local + foreign):** Yes
- **Present Scholars (local Ph.D.):** 06



Faculty of Life Sciences

CENTRE FOR CLINICAL PSYCHOLOGY

- **Faculty development programmes** (MS/PhD local + foreign)
 - Four Assistant Professors have submitted their Ph.D.
 - One Lecturer is doing Research work of her Ph.D after ASRB.
- **Present Scholars:** 4

CENTRE OF EXCELLENCE IN MOLECULAR BIOLOGY

- **Faculty Development Programs** (MS/ PhD Local + Foreign):
Faculty of the Centre is encouraged for higher studies. At present seventeen faculty members are enrolled in Ph.D and two in M.Phil. Faculty members attended the regular courses at the Centre. After completion of course work they are assigned a research program in their relevant field.
- **Returned Scholars**
Three faculty members completed their M. Phil/Ph.D and joined their duties.

Sr. No	Name
1	Mr. Faheem Akram
2	Mr. Noman Gillani

- **Present Scholars:**
Presently total ten faculty members are enrolled in Ph.D and two are enrolled in M.Phil.
Ph.D Faculty Members:

Sr. #	Ph. D.
1	Ms. AneelaYasmin
2	Ms. MairaTayyab Baig
3	Ms Saira Azam
4	Ms. Saba Tasneem
5	Ms. Abida Shezadi
6	Mr. Tahir Rehman Samiullah
7	Ms. Samra Kausar
8	Ms. Farah Naz
9	Mr. Muhammad Islam Khan
10	Mr. Saad Tahir

- **Pre-Service and in-Service Professional Development Programmes**
Faculty members are encouraged to attend different training courses / workshops symposia at national and international level.



DEPARTMENT OF BOTANY

- **Faculty development programmes** (MS/ PhD local + foreign)
 - Dr. Atif Kamran, has returned and joined the Institute in 2020 after completion of his Post Doctorate degree from foreign country under faculty development program
 - Dr. Shakil Ahmed was promoted as Professor in the Institute
 - Dr. Najam ul Sehar Afshan and Dr. Abdul Rehman Khan Niazi were promoted as Associate Professors in the Institute.

DEPARTMENT OF MICROBIOLOGY & MOLECULAR GENETICS

- **Faculty development programmes** (MS/PhD local+foreign)

Dr. Imran Sajid completed one year postdoc through Fulbright Scholar Program, the Center for Pharmaceutical Research and Innovation (CPRI), College of Pharmacy, University of Kentucky, USA
- **Returned Scholars**
 - Ms. Hafsa Amat-Ur-Rasool is working in the Faculty of Medicine & Health Sciences, Nottingham University, UK under 12 Month Split-site (PhD) fellowship under Common Wealth Scholarship Scheme.
 - Mr. Gur Charn Singh is working in Faculty of Life Sciences, School of Physiology, Pharmacology and Neuroscience, University of Bristol, UK under HEC's 6 months IRSIP fellowship to complete a part of her PhD research
 - Mr. Muhammad Hayat Haider, Department of Medical Microbiology, University College London, UK under HEC's 6 months IRSIP fellowship to complete a part of her PhD research
 - Ms. Ashba Hassan , completed a part of her PhD research under HEC's IRSIP program at the center for Pharmaceutical Research and Innovation (CPRI), College of Pharmacy, University of Kentucky, USA
 - Ms. Ashba Hassan , is working at the center for Pharmaceutical Research and Innovation (CPRI), College of Pharmacy, University of Kentucky, USA, through the funding of the CPRI-College of Pharmacy.
- **Achievements of Foreign faculty**

Prof. Dr. Adrian Martineau, Centre for Primary care and Public Health. Queens Mary University of London. UK. Visited Pakistan 21 February, 2020 and had a one day seminar. What's new in the detection of M. tuberculosis infection?

INSTITUTE OF AGRICULTURE SCIENCES

- **Present Scholars**
 - Dr. Nureen Akhtar
 - Ms. Sana Hanif
 - Ms. Qurat-Ul-Ain Farooq



INSTITUTE OF APPLIED PSYCHOLOGY

- **Faculty Development Programmes** (MS/ PhD Local + Foreign)
Presently One faculty member (Ms. Tahira Mubashar, Lecturer) of this Institute doing Ph.D from Technical University Darmstadt, Germany funded by the University of the Punjab, Lahore under faculty development programme.
- **Returned Scholars**
Dr. Afifa Anjum, Assistant Professor (on Adhoc) completed Ph.D from the Institute of Applied Psychology, University of the Punjab, Lahore.
- **Present Scholars**
Ms. Tahira Mubashar, Lecturer is Ph.D Scholar at Technical University Darmstadt, Germany.
- **Pre-service and in-service professional development programs**
Pre-service and in-service professional development programs are organized at University level for the newly inducted and in-service faculty members.

SCHOOL OF BIOLOGICAL SCIENCES

- **Faculty development programmes** (MS/Ph.D. local + foreign)
 - One Professor and two associate professor (foreign qualified) have joined SBS in year 2020.
 - All the faculty members are Ph.D. and experienced researchers. They continued with their usual research activities and collaboration with laboratories in foreign Universities (Massachusetts, Cornell, UCL, Davis, NIH, Houma, Wales, Southampton, Kyoto, Kotaido, Wuhan and Putra.
 - The School receives foreign faculty members for shorter period of time, who are actively involved in teaching of a particular course and or help in Ph.D. research projects of the students who are working in their areas of expertise. The school also sends its faculty and students in the foreign laboratories to develop their skills and knowledge in the modern biological sciences. During the period under report one faculty member and one Ph.D. students have spent more than six months in foreign laboratories situated in technology advance countries.

CENTRE FOR APPLIED MOLECULAR BIOLOGY

- **Faculty development programmes** (MS/ PhD local + foreign)
 - Local*
Five faculty members already enrolled in Ph.D are going to complete their degrees within a year or two.
 - Foreign*
Two faculty members are completing their PhD degrees in foreign countries under the Faculty Development Program.
- **Present Scholar:** Ph.D = 28



Faculty of Oriental Learning

DEPARTMENT OF PERSIAN

○ Achievements of Foreign Faculty

A Foreign Faculty Member from Firdousi University Mashhad, Iran taught in the Persian Department for one year regarding memorandum between PU, and Firdousi University, Mashhad, Ira

Faculty of Pharmacy

PUNJAB UNIVERSITY COLLEGE OF PHARMACY

○ Faculty development programmes (MS/ PhD local + foreign)

Mr. Khalil ur Rehamn and Mr. Imran Tariq are pursuing their PhD abroad utilizing the fund of university of the Punjab. Dr. Rahat Shamim and Dr. Misbah have completed their PhD at Punjab University College of Pharmacy, University of the Punjab.

○ Present Scholars

- Mr. Ejaz Ali pursuing PhD in Pharmaceutical Chemistry from University of the Punjab.
- Mr. Imran Tariq, pursuing PhD in Bio-pharmaceutics from Germany
- Mr. Khalil-ur-rehman pursuing PhD in Pharmacognosy from Austria

○ Pre-service and in-service professional development programmes

- Pre-service includes, time to time arrangements of seminars, workshops and conferences.
- Certification for post-service professionals – Quality by Design

Faculty of Sciences

CENTRE FOR INTEGRATED MOUNTAIN RESEARCH

Keeping in view the importance of the available resources, the CIMR brings together leading researchers and draws on the full range of expertise in the University to provide solutions to local/regional/global problems pertaining to mountainous regions. The Centre contributes to developing a greater understanding of the key scientific, social and institutional issues that underpin sustainable development of mountain resources. The following full time faculty members are:

Sr. No.	Name & Designation	Degrees	Area of Expertise	Status
1	Prof. Dr. Munawar Sabir <i>Director and Professor</i>	- M.Sc. Geography (PU) - M.Phil (GC University Lahore) - Ph.D. Geography (PU)	Population geography, Landscape ecology, ecosystem services, urban green spaces, urbanization and urban sustainability Disaster Risk Reduction,	Permanent/ Full Time



2	Engr. Dr. Muhammad Yaseen <i>Assistant Professor</i> (HEC approved Ph.D Supervisor)	- Research Fellow, ITC-UT, Netherlands -Ph.D. (Water Resources Engineering), UET-PAK -M.Sc. (Water Resources Engineering), UET-PAK -B.Sc. (Agricultural Engineering), UAF-PAK	Watershed Hydrology; Decision Support System and Watershed Modeling; Integrated Water Resources Management; Mountain Conservation and Watershed Management; Sustainable Mountain Development; Geo-environmental Conservation and Sustainable Development; Climate Change and Disaster Risk Management; Sustainable Irrigation and Drainage System Management; Groundwater Modeling and Management	Permanent/ Full Time
03	Dr. Syed Umair Shahid <i>Assistant Professor</i>	-Ph.D (Remote Sensing and GIS), NUST-PAK -M.Phil (Remote Sensing and GIS), NUST-PAK -M.Sc. (Geography), PU-PAK	Geographical information systems, Remote sensing, Spatial interpolation methods, Spatial analysis and modelling; Spatial auto-correlation, Geo-statistics; Groundwater vulnerability assessment; Groundwater quality	Permanent/ Full Time
04	Ms. Saira Batool Lecturer	-Ph.D Scholar Geography (PU) -M.Phil Geography (PU) -M.Sc. Geography (PU)	Mountain climate, mountain ecology and biodiversity. Eco tourism, sustainable development	Permanent/ Full Time
05	Ms. Bushra Zia Khan Lecturer	-M.Phil (Environmental Sciences), PU-PAK B.Sc. (Geography), PU-PAK	Environmental Impact Assessment, Health and Environment, Mountain's Environment, Environmental Management, Occupational health and safety System, Solid Waste Management, Climatology, Mountain Hazards and Disaster Management, Mountain Resource Management, Biodiversity and Conservation, Geomorphology, Research methods and Techniques, Demographic Survey	Permanent/ Full Time
06	Ms. Nayab Alam Lecturer	- Ph.D Scholar (Remote Sensing and Geographical Information System), PMAS-AAU, PAK -M.Phil (Environmental Sciences), PU-PAK -B.Sc. (Hons) (Geography), Kinnaird College for Women, Lahore	Geo-environmental Sciences, Sustainable Mountain Development, Mountain Eco-tourism and its role in conservation, Mountain disaster and risk management, Land and water resource management, Resources and land use Climate Change impacts on biodiversity and environmental sustainability, and Integrated Mountain Geo-morphology	Permanent/ Full Time

COLLEGE OF EARTH & ENVIRONMENTAL SCIENCES

○ Faculty Development Programs (MS / PhD Local + Foreign):

Presently there is no faculty member is pursuing PhD studies in any foreign University.

*Local*

Sr. No.	Name of Faculty member	Department / University	Subject / Area of Study
1.	Ms. Anum Tariq	CEES, P.U., Lahore	Environmental Sciences
2.	Mr. Muhammad Waqar	-do-	Applied Hydrology

○ **Returned Scholars**

Sr. No.	Name of Faculty member	Subject / Area of Study
1.	Mr. Muhammad Kamran Assistant Professor	Environmental Sciences

○ **Present Scholars: 02****COLLEGE OF STATISTICAL & ACTUARIAL SCIENCES**○ **Faculty development programmes (MS/ PhD local + foreign)**

- 1 faculty member is doing PhD from UK

○ **Returned Scholars**

Two faculty member who were doing Ph.D from UK and Malaysia completed the program and returned back.

○ **Present Scholars**

- 1 faculty member is registered as PhD student in Punjab University
- 1 faculty member is enrolled in PhD at LUMS
- 1 faculty member is enrolled in PhD at The Lahore University

DEPARTMENT OF GEOGRAPHY○ **Faculty development programmes (MS/ PhD local + foreign)**

Presently the department is availing the services of Nine regular teachers. Out of these regular teachers 5 are PhDs (One foreign & Four local PhD) 1 PhD faculty member of TTS while 3 are MPhil, 1 is MSc.

DEPARTMENT OF MATHEMATICS○ **Faculty development programmes (MS/ PhD local + foreign)**

Dr. Saira Hamid completed her Ph.D. degree from Department of Mathematics, University of the Punjab, Lahore and promoted as an Assistant Professor on Adhoc Basis.

DEPARTMENT OF PHYSICS○ **Returned Scholars**

- Dr. Muhammad Shahbaz returned back after completing his PhD degree from USA
- Dr. Attia Falak returned back after completing her PhD degree from China University under the PU-HEC Faculty Development Programme

○ **Present Scholars**

Miss Attia Falak (Lecturer) is doing PhD from China University under the PU-HEC Faculty Development Programme.

DEPARTMENT OF SPACE SCIENCE○ **Present Scholars: 3 faculty members are registered as PhD student in PU.**



INSTITUTE OF CHEMISTRY

- **Faculty development programmes** (MS/ PhD local + foreign)
Institute of has 29 Faculty members and 27 these are Ph.D. one Faculty member, Mr. Muhammad Hamid Raza is doing Ph.D from Germany. Almost 10 of the Faculty member have been promoted to the Cadre of Associate Professor under TTS and BPS System within the time period mentioned above.

INSTITUTE OF GEOLOGY

- **Faculty development programmes** (MS/PhD local + foreign)
Two faculty members are enrolled for PhD program

PUNJAB UNIVERSITY COLLEGE OF INFORMATION TECHNOLOGY

- **Returned Scholar**
Rukhsana Kausar, Zobia Suhail
- **Present Scholars**
Sadia Shahzad, Mr. Abdul Khaliq, Mr. Abdul Mateen, Muhammad Ahmad Ghazali, Ms. Saima Ali, Ms. Muddasra Arshad, Ms. Amina Mustansir, Kashif Murtaza, Ayesha Khan, Mr. Imran Javed

Punjab University Gujranwala Campus

- **Faculty development Program (MS/ PhD local + Foreign)**
The Punjab University is facilitating the faculty members by offering them scholarships for PhD from the renowned foreign Universities of the world. Resultantly, one faculty member from Gujranwala Campus is doing PhD from Newzealand on scholarship awarded by the University of the Punjab, Lahore. Nine faculty members from Gujranwala Campus are doing PhD from various indigenous universities.
- **Present Scholars: 1**
- **Present Scholars: 10**

Punjab University Jhelum Campus

- **Present Scholars:**
Dr. Mudassar Ghafoor, PhD

5

ACCESS

Chapter

- Basic Enrolment
- Equity
- Gender-wise Detail
- Employability





CHAPTER

5

Access

Faculty of Arts & Humanities

CENTRE FOR SOUTH ASIAN STUDIES

- **Basic enrolment:** M.Phil = 15
- **Equity:** 26 Ph.D + 17 M.Phil.
- **Gender-wise Detail**

	Male	Female
M.Phil 2020	12	05
PhD 2020	17	09

- **Employability**

Students Enrolled in M.Phil and Ph.D are usually already in service and in other case most of them get the job in their relevant field before completion of the degree

- **Faculty-Student ratio**

Ph. D	1:3
M. Phil.	0:85

COLLEGE OF ART AND DESIGN

- **Basic Enrollment+25/Equity+Gener-wise+employability+Faculty-Ratio**

Regular Fee Structure		Bachelor			Master			M.Phil			PhD			PGD			Diploma/ Certificate		
	Semester	M	F	Total	M	F	Total	M	F	Total	M	F	Total	M	F	Total	M	F	Total
1 st Year	I	21	65	86	0	12	12	2	43	45									
2 nd Year	III	23	73	96	0	0	0												
3 rd Year	V	20	73	93															
4 th Year	VII	8	25	33															
5 th Year	14	12	21	33															
Sub-Total (i)		84	257	341	0	12	12	2	43	45	0	0	0	0	0	0	0	0	0
Self-Support Program		Bachelor			Master			M.Phil			PhD			PGD			Diploma 2019-20		
	Semester	M			F	Total	M	F	Total	M	F	Total	M	F	Total	M	F	Total	
1 st Year	I	29			31	60	22	6	28	5	16	21				8	12	20	
2 nd Year	III	26			35	61	13	12	25	0	0	0							
3 rd Year	V	21			38	59				0	0	0							
4 th Year	VII									0	0	0							
Sub-Total (ii)		76			104	180	35	18	53	5	16	21	0	0	0	8	12	20	
Total (I + ii)		160			361	521	35	30	65	7	59	66	0	0	0	8	12	20	



○ **Faculty-student ratio**

Program	Ratio
B. Arch	1:15
BFA (Graphic Design, Textile Design, Painting)	1:27 Each
MA	1:5
MFA (Graphic Design, Textile Design, Painting)	1:20 Each
M.Arch	1:25
M.Phil	2:25

DEPARTMENT OF ARCHAEOLOGY

○ **Basic enrolment**

26 students (M.A. Archaeology) Semester I 2019-21

13 students (M.A. Archaeology) Semester IV 2018-20

○ **Gender-wise Detail**

11-Female and 15-Male (M.A. Archaeology) Semester I 2019-21

08-Female and 05-Male (M.A. Archaeology) Semester IV 2018-20

○ **Employability**

- Fair opportunities for employment are available with Punjab Govt., Museums, other cultural institution and NGOs.
- Students get jobs in Museums, Provincial or Federal Department of Archaeology, TDCP, PTDC and Heritage management organizations after successful completion of M.A. and M.Phil Degrees.

○ **Faculty-student ratio**

1=9 students approx. (M.A. Archaeology)

DEPARTMENT OF ENGLISH LANGUAGE & LITERATURE

○ **Basic Enrolment:** 527 Students

○ **Gender-wise Detail**

Programme	Male	Female	Total
Ph. D	0	6	6
M.Phil – I	2	6	8
M. Phil – II		18	18
MA – I (Morning & Replica)	39	45	84
MA – II (Morning & Replica)	30	55	85
BS-I	23	17	40
BS-III	12	18	30
BS-V	16	25	41
BS-VII	09	18	27
PGD-ELT	09	31	40
Diploma in Linguistics	27	30	57
Spoken English Certificate	58	33	91
Total			527
No. of Permanent & Visiting Faculty			28

○ **Faculty-Student Ratio:** 1 : 20



○ **Employability**

Students of the Department of English serve in different fields: government, Semi-government and private sectors, particularly in educational institutions and Civil Services.

DEPARTMENT OF HISTORY & PAKISTAN STUDIES

○ **Basic Enrolment:**

165 Students, No. of Students Enrolled. 67 Students Enrolled

○ **Gender-wise Detail**

S.No.	Program	Male	Female
1	B.S History	20	6
2	M.A. Pakistan Studies	21	20
3	M.Phil.	22	19
4	Ph.D.	19	12
5	Ph.D. (Chinese students)	19	07

○ **Employability**

The graduating students of department are eligible to serve in public and private sectors. Many students who have complete their Masters, M.Phil. And Ph.D. degrees are now serving in educational institutes and in posted in civil services of Pakistan.

○ **Faculty –Student ratio:** 24 Students

DEPARTMENT OF PHILOSOPHY

○ **Basic enrolment**

The Department of Philosophy is running four academic programmes i.e. (BS, MA, MPhil and PhD) Note: No student admitted in MPhil and PhD programs in the academic year 2019-20, because these programs are halted by HEC.

Programme	Duration	Basic Enrollment
BS Philosophy (2019-2020)	4-Years	40
MA Philosophy (2019-2020)	2-Years	37
MPhil Philosophy (2019-2020)	2 Years	0
PhD (2019-2020)	4 Years	0

○ **Gender-wise Detail**

Programme	Duration	Gender	
		Male	Female
BS Philosophy (2019-2020)	4-Years	20	20
MA Philosophy (2019-2020)	2-Years	32	5
MPhil Philosophy (2019-2020)	2 Years	0	0
PhD (2019-2020)	4 Years	0	0

○ **Employability**

The Philosophy graduates works in education, government, law, journalism and politics.



○ **Faculty-student ratio**

Programme	Duration	Gender	
		Male	Female
BS Philosophy (2020-2021)	4 Years	18	18
BS Philosophy (2019-2020)	4 Years	20	20
BS Philosophy (2018-2019)	4 Years	11	23
BS Philosophy (2017-18)	4 Years	7	7
MA Philosophy (2019-2020)	2-Years	32	11
MA Philosophy (2019-2020)	2-Years	32	5
MPhil Philosophy (2019-2020)	2 Years	0	0
PhD (2019-2020)	4 Years	0	0
Total Students		120	84
Student Faculty Ratio		1:25.5	

PAKISTAN STUDY CENTRE

○ **Employability**

The graduating students of the Centre are eligible to serve in public and private sectors. Most students who complete their M. Phil. and Ph.D. degrees are serving in educational institutes and civil services.

○ **Faculty-student ratio**

PhD Pakistan Studies	06:01
M. Phil. Pakistan Studies	09:01

DEPARTMENT OF FRENCH

○ **Basic enrollment**

- BS (hons): 23
- M.A French: 6
- Short courses certificates (evening): 10

○ **Employability**

The 100% market/industry absorption of our passed out graduates of previous years also got affected due to Covid-19 prevalence. Closure of academic and various other institutions because of the pandemic directly affected the employability of our graduates.

○ **Faculty-student ratio**

S. No.	Faculty	Students	Ratio
1.	2	70	2:35

Faculty of Behavioral & Social Sciences

DEPARTMENT OF GENDER STUDIES

○ **Basic enrolment: 453**



○ **Gender-wise Detail**

Regular Fee		Bachelor			Master			Ph.D		
Year	Semester	M	F	Total	M	F	Total	M	F	Total
1 st	I									
	II	---	---	---	---	---	---	---	---	---
2 nd	III	14	37	51	32	11	43			
	IV	---	---	---	---	---	---			
3 rd	V	11	29	40				6	4	10
	VI	---	---	---	---	---	---			
4 th	VII	8	31	39				0	9	9
5 th	IX							3	6	9
	X							3	6	9
Sub-Total (i)		33	97	130	32	11	43	12	25	37
Self-Support		Bachelor			Master			Ph.D		
Year	Semester	M	F	Total	M	F	Total	M	F	Total
1 st	I									
	II	---	---	---	---	---	---	---	---	---
2 nd	III	29	43	72	27	9	36			
	IV				---	---	---			
3 rd	V	17	35	52				2	8	10
	VI									
4 th	VII	19	34	53				6	4	10
	VIII							2	4	6
	IX									
	X							1	3	4
Sub-Total (ii)		65	112	177	27	9	36	11	19	30
Total (i+ii)		98	209	307	59	20	79	23	44	67

○ **Employability**

- Public Sector: Lecturers in the Home Department, Lahore College for Women University, Fatima Jinnah College, Chuna Mundi , Fatima Jinnah Women University
- Gender Specialists, DWD and Ministry of Human Rights,
- Private Sector: National and International NGOs

○ **Faculty-student ratio: 1:12**

DEPARTMENT OF POLITICAL SCIENCE

○ **Basic enrolment**

Sr. No.	Program	Total Number of Students Enrolled
1	BS (Hons.) Political Science	48
2	M.A Political Science	42
3	M.A International Relations	37
4	M.A Diplomacy & Strategic Studies	35
Total:		162



○ **Gender wise detail**

Sr. No.	Program	Gender Wise Enrolled		Total Number of Students
		Male	Female	
1	BS (Hons.) Political Science	39	09	48
2	M.A Political Science	33	09	42
3	M.A International Relations	27	10	37
4	M.A Diplomacy & Strategic Studies	30	05	35
Total:		129	33	162

○ **Employability**

In Media, Teaching, Foreign Office, NGO's, Judiciary and other administrative posts in govt. and private sector

○ **Faculty student ratio**

1/15 (11 Faculty members, 162 students)

DEPARTMENT OF SOCIAL WORK

○ **Basic enrolment**

BS Social Work Self supporting (First Semester) Session 2019-2023 (Total 73 Students Enrolled)	
Male	Female
26	47

	M.Sc. Social Work Part-I Session 2019-2021 (Total 114 Students Enrolled)	
	Male	Female
Morning Programme (Total Students 62)	31	31
Replica Programme (Total Students 67)	33	34

○ **Gender wise Detail**

Programmes	Gender		Total Number of Students
	Males	Females	
PhD (Second Year)	01	06	07
PhD (Fifth Year)	06	01	07
PhD (Sixth Year)	03	03	06
M.Phil (Second Year)	03	11	14
M.Phil (Third Year)	04	13	17
M.Sc. Semester-I (Morning)	31	31	62
M.Sc. Semester-I (Replica)	33	34	67
M.Sc. Part-II (Morning)	25	36	61
M.Sc. Part-II (Replica)	16	32	48
BS Semester-I (Replica)	26	47	73
BS Semester-III (Regular)	30	38	68
BS Semester-V (Replica)	23	37	60
Total Students	201	289	490



○ **Faculty Student Ratio:**

Total Number of Students (490) = 81.66

Total Number of Faculty Members (6) = 1

INSTITUTE OF COMMUNICATION STUDIES

○ **Basic Enrolment**

▪ **BS (4-Year) Communication Studies** (Gender wise detail)

Male	26
Female	25
Total	51

▪ **BS (4-Year) Communication Studies (Replica Program)** Gender wise detail

Male	24
Female	26
Total	50

▪ **M.Sc Communication Studies (Morning Program)** (Gender wise detail)

Male	29
Female	30
Total	59

▪ **M.Sc Communication Studies (Replica Program)** (Gender wise detail)

Male	34
Female	14
Total	48

▪ **M.Sc Communication Studies (Development Journalism) (Gender wise detail)**

Male	11
Female	19
Total	30

▪ **M.Sc Communication Studies (Film & TV Production)** (Gender wise detail)

Male	26
Female	15
Total	41

▪ **M. Phil (Research Track) Regular Program** (Gender wise detail)

Male	05
Female	10
Total	15



▪ M. Phil (Professional Track) Regular Program (Gender wise detail)

Male	10
Female	15
Total	25

▪ M. Phil (Professional Track) Self-Supporting Program (Gender wise detail)

Male	11
Female	02
Total	13

▪ Ph.D Communication Studies (Gender wise detail)

Male	8
Female	5
Total	13

Total Male Students = 183

Total Female Students = 161

Grand Total = 344

○ **Employability**

Graduate students of Institute of Communication Studies achieves the highest level of employability as compare to other institutions offering media and journalism education.

○ **Faculty-Students Ratio**

Total Number of Faculty Permanent Members = 17

Total Number of Visiting Faculty Members = 15

Total Number of Students (Approximately) = 900

INSTITUTE OF SOCIAL & CULTURAL STUDIES

○ **Basic enrolment**

Total number of Students enrolled for the current period are 1167

○ **Gender-wise Detail**

▪ **BS Sociology & Socio Cultural Studies (Regular)**

S. No	Program	Total No. of Seats	Male	Female	Total
1	BS.(4Year) Semeseter-II	49	29	26	55
2	BS.(4Year) Semeseter-IV	57	25	32	57
3	BS.(4Year) Semeseter-VI	62	25	32	57
4	BS.(4Year) Semeseter-VIII	54	27	35	62

▪ **BS Sociology & Socio Cultural Studies (Replica)**

S. No	Program	Total No. of Seats	Male	Female	Total
1	BS.(4Year) Semeseter-II	72	35	37	72
2	BS.(4Year) Semeseter-IV	78	33	43	76
3	BS.(4Year) Semeseter-VI	74	32	46	78
4	BS.(4Year) Semeseter-VIII	73	33	37	70



▪ M.Sc. Sociology (Regular)

S. No	Program	Total No. of Seats	Male	Female	Total
1	M.Sc. Sociology-II	61	32	29	61
2	M.Sc. Sociology-IV	60	21	36	57

▪ M.Sc. Sociology (Replica)

S. No	Program	Total No. of Seats	Male	Female	Total
1	M.Sc. Sociology-II	74	41	28	69
2	M.Sc. Sociology-IV	74	24	29	53

▪ M.Sc. Development Studies (Regular)

S. No	Program	Total No. of Seats	Male	Female	Total
1	M.Sc. Dev.Studies-II	60	30	25	55
2	M.Sc. Dev.Studies-IV	60	24	29	53

▪ M.Sc. Development Studies (Replica)

S. No	Program	Total No. of Seats	Male	Female	Total
1	M.Sc. Dev.Studies-II	74	12	12	24
2	M.Sc. Dev.Studies-IV	74	6	11	17

▪ M.Sc. Criminology and Security Studies (Evening)

S. No	Program	Total No. of Seats	Male	Female	Total
1	M.Sc. Criminology-II	74	62	7	69
2	M.Sc. Criminology-IV	70	59	11	70

▪ M. Phil. Sociology (Regular)

S. No	Program	Total No. of Seats	Male	Female	Total
1	M.Phil. Sociology-IV	20	6	14	20

▪ Ph.D. Sociology (Regular)

S. No	Program	Total No. of Seats	Male	Female	Total
1	Ph.D in Sociology-IV	10	5	5	10
2	Ph.D in Sociology-VI	10	6	2	9
3	Ph.D in Sociology-IIIX	10	7	2	9
4	Ph.D in Sociology-X	10	3	4	7
5	Ph.D in Sociology-XII	10	4	3	7
6	Ph.D in Sociology-XIV	10	1	0	1

▪ Ph.D. Sociology (Replica)

S. No	Program	Total No. of Seats	Male	Female	Total
1	Ph.D in Sociology-IV	10	3	7	10
2	Ph.D in Sociology-VI	10	2	7	9
3	Ph.D in Sociology-IIIX	10	5	1	6
4	Ph.D in Sociology-X	10	1	3	4

▪ M.Phil. Education Policy & Development (Regular)

S. No	Program	Total No. of Seats	Male	Female	Total
1	M.Phil in EPD-IV	20	4	16	20



- **Employability**
 - All of the programs of Institute of Social & Cultural Studies are designed in a way that the graduates will get the relevant jobs as per their capabilities
- **Faculty-student ratio**

Number of teachers	Number of students enrolled	Ratio
15	1167	1:78

Faculty of Commerce

HAILEY COLLEGE OF BANKING & FINANCE

- **Basic enrolment**

BBA (Hons) Banking & Finance (Four Years Program)

Program	Session	Semester	Boys	Girls	Total
BBA (Hons)	2019-22	1st Semester	46	91	137
BBA (Hons)	2018-22	3 rd Semester	47	25	72
BBA (Hons)	2017-21	6 th Semester	27	43	70
BBA (Hons)	2016-20	8 th Semester	29	27	56
Total			149	186	335

MBA Banking & Finance (3.5 Years Morning Program)

Program	Session	Semester	Boys	Girls	Total
MBA	2018-22	3 rd Semester	36	33	69
MBA	2017-21	6 th Semester	34	36	70
MBA	2016-20	7 th Semester	29	34	63
MBA (MS)	2018-20	3 rd Semester	29	19	48
Total			128	122	250

MBA (Evening) Banking & Finance (3.5 Years Evening Programs)

Program	Session	Semester	Boys	Girls	Total
EMBA	2018-22	3 rd Semester	162	46	208
EMBA	2017-21	5 th Semester	109	23	132
EMBA	2016-20	7 th Semester	105	30	135
Total			376	99	475

- **Gender Wise Detail: Total Students (Banking & Finance)**

Program	Boys	Girls	Total
BBA (Hons)	149	186	335
MBA	128	122	250
EMBA	376	99	475
Grand Total	653	407	1060

BBA (Hons) Insurance & Risk Management (Four Years Program)

Programs	Session	Semester	Boys	Girls	Total
BBA (Hons)	2018-22	3 rd Semester	34	24	58
BBA (Hons)	2017-21	6 th Semester	20	36	56
BBA (Hons)	2016-20	8 th Semester	20	30	50
Total			74	124	164



MBA Insurance & Risk Management (Morning Program)

Programs	Session	Semester	Boys	Girls	Total
MBA	2018-22	3 rd Semester	33	29	62
MBA	2017-21	6 th Semester	40	30	70
MBA	2016-20	7 th Semester	31	23	54
MBA (MS)	2018-20	3 rd Semester	11	16	27
Total			115	98	213

MBA Insurance & Risk Management (Evening Program)

Programs	Session	Semester	Boys	Girls	Total
EMBA	2018-22	3 rd Semester	27	7	34
EMBA	2017-21	5 th Semester	74	15	89
EMBA	2016-20	7 th Semester	73	39	112
Total			174	61	235

○ Gender Wise Detail: Total Students (Insurance & Risk Management)

Program	Boys	Girls	Total
BBA (Hons)	74	90	165
MBA	115	98	213
EMBA	174	61	235
Grand Total	263	249	612

BBA/MBA (Morning Program) 2 Years

Programs	Session	Semester	Boys	Girls	Total
BBA (2Y) M	2019-21	1 st Semester	81	40	121
MBA (2Y) M	2019-21	1 st Semester	102	60	162
Total			183	100	283

BBA/MBA (Evening Program) 2 Years

Programs	Session	Semester	Boys	Girls	Total
BBA (2Y) M	2019-21	1 st Semester	126	27	153
MBA (2Y) M	2019-21	1 st Semester	111	16	127
Total			237	43	280

○ Gender Wise Detail: Total Students (BBA and MBA 2 Years - Morning and Evening)

Program	Boys	Girls	Total
BBA (M/E)	183	100	283
MBA (M/E)	237	43	280
Grand Total	420	143	563

○ Grand Total (All Programs)

Program	Boys	Girls	Total
BBA (M/E)	430	343	773
MBA (M/E)	345	280	625
EMBA	661	176	837
Grand Total	1436	799	2235



○ **Equity**

No discrimination is being made for enrolment in our College. At present Muslims, Hindus and Christians are also studying in our College.

○ **Employability**

Our graduates have so far been well accepted in Banks, Corporate Sector Insurance Sector, Central Supervisor Services and Government entities. We are also making efforts to increase the employability possibilities for their employment abroad. Some of them have procured jobs in Singapore, Switzerland, Middle East, South Africa etc. Our alumni hold top positions in financial sector.

○ **Faculty Student Ratio**

Faculty – Student Ratio is: 1 (Faculty): 75 (Students)

The gap is being filled by associating part-time teachers.

HAILEY COLLEGE OF COMMERCE

○ **Basic Enrolment**

- Admitted in B.Com Hons. 4 years semester Programme after passing Intermediate
- Admitted in BS Accounting & Finance 4 years semester Programme after passing Intermediate
- Admitted in M.Com 3 ½ years after passing B.Com. I.T 2 years programme
- Admitted in M.Com 1 ½ after passing B.Com 4 years or M.Com 2 years

○ **Gender wise Detail**

Program		No. of students admitted				No. of Seats sectioned	
		Merit		Reserved		Merit	Reserved
		M	F	M	F		
Bachelor B. Com (4 Yrs)	Morning	84	107	-	-	200	-
	Replica	86	81	-	-	200	-
Master M.Com (3½ Years)	Morning	40	37	-	-	86	-
	Replica	52	37			94	
M. Com (1½ years)	Morning	18	21	-	-	50	-
	Replica	22	07	-	-	50	-
M.Phil.	Morning	4	14	-	-	20	-
Ph.D.	Morning	4	5	-	-	20	-

○ **Faculty Student Ration**

No of Budgeted Post		No. of Faculty Member actually present Permanent Contractual		No. of Ph.D Teachers	No. of Non-Ph.D Teachers	Programs running in the College Programme No. of Students	
Professors	06	04	00	04	00	B.Com (Hons.) Various Semesters	1322
Associate Professors	09	04	00	04		M.Com 3 ½ years Various Semesters	361
Assistant Professors	15	10	00	09	01	M.Com 1 ½ years	68
Lecturers	11	02	00	0	02	M.Phill Ph.D	18 46



Faculty of Economics & Management Sciences

DEPARTMENT OF ECONOMICS

○ Basic Enrollment

Session	Bachelor	M.Sc.	MBEcon	M.Phil.	Ph.D.	PGDAE	Total
2019-20	266	170	106	69	18	0	629

○ Equity

Equity in terms of fairness, inclusion and access is top priority of Department of Economics because it plays significant role in narrowing the achievement gap. All students enrolled during 2019-20 regardless of gender, socio-economic status, language background and religion received quality education from our competent faculty in a conducive learning environment and equally acquired access to services (library, technical equipment, computer lab) from institute. The Department of Economics has ensured that all students are able to learn and explore.

○ Gender and Year Wise Breakup

The student enrollment by gender and year for academic session 2019-20 is as follows:

▪ Bachelor Degree

	1 st Year		2 nd Year		3 rd Year		4 th Year		Total
	M	F	M	F	M	F	M	F	
Morning			21	30	15	28	21	30	145
Replica			26	23	20	23	17	12	121

▪ Master Degree

	1 st Year		2 nd Year		Total
	M	F	M	F	
Morning	22	40	21	30	113
Replica	11	12	15	19	57
MBEcon (Afternoon)	24	29	32	21	106

▪ M.Phil. Degree

	1 st Year		2 nd Year		Total
	M	F	M	F	
Regular	3	15	5	12	35
Self-Supporting	3	9	5	17	34

▪ Ph.D. Degree

	1 st Year		2 nd Year		3 rd Year		4 th Year		5 th Year		Total
	M	F	M	F	M	F	M	F	M	F	
Regular	0	0	0	0	3	3	4	3	3	2	18



○ **Employability (max 02 lines)**

Our Bachelor graduates shall be ready for entry level positions in public and private organizations. Our Master graduates shall be able to work as lecturers, managers, financial analysts, bankers and business executives. Our M.Phil. and Ph.D. graduates shall be well equipped with research skills for notable contributions in the field of economics.

○ **Student – Teacher Ratio**

The number of teaching staff is

Category	Regular Faculty		SBP Chair	
	No. of Males	No. of Females	No. of Males	No. of Females
Professor	01	-	1	-
Associate Professor	02	-	-	-
Assistant Professor	02	04	-	-
Lecturer	01	01	-	-

Student - Teacher Ratio

Total No. of Students (New Intake + Existing)	Total No. of Teachers (Regular)
629	11
It means Student – teacher ratio is 57:1	

DEPARTMENT OF INFORMATION MANAGEMENT

○ **Basic enrolment**

In Masters (Morning & Afternoon) program, seventy one students got admission in 2018. In M.Phil program, twelve students admitted and in Ph.D. program, thirteen students got admission.

○ **Gender-wise Detail**

Program	Male	Female	Total
M.A (Morning, Afternoon)	37	70	107
MPhil Regular	10	13	23
PhD	19	20	39

○ **Employability**

The Department regularly conducts surveys to know the job market of its graduates and the needed competencies. Efforts have been made to improve the job market and quality of the program.

○ **Faculty-student ratio**

There were 9 teachers available in the department. The student ratio was 1:10. The department also hired visiting faculty members.



INSTITUTE OF ADMINISTRATIVE SCIENCES

○ Basic enrolment

Fall Semester 2019-20								
Sr.	Shift	Class	Semester	Session	M	F	Total	
1.	Regular	PhD in Management	1 st	2020-24	0	0	0	0
2.	Regular	M.Phil in Management	1 st	2020-22	As Per HEC directives no MS/MPA/M.Phil admissions were taken in years 2019 & 2020			
3.	Regular	M.Phil in Management	3 rd	2019-21				
4.	Regular	Master of Public Administration (18 Years)	1 st	2020-21				
5.	Regular	Master of Public Administration (18 Years)	3 rd	2019-21				
6.	Regular	MS HRM	1 st	2019-21				
7.	Regular	MS HRM	3 rd	2019-21				
8.	Replica	M.Phil in Management	1 st	2020-22				
9.	Replica	M.Phil in Management	3 rd	2019-21				
10.	Replica	Master of Public Administration (18 Years)	1 st	2020-22				
11.	Replica	Master of Public Administration (18 Years)	3 rd	2019-21				
12.	Replica	MS HRM	1 st	2020-22				
13.	Replica	MS HRM	3 rd	2019-21				
14.	Evening	Master of Public Administration (18 Years)	1 st	2020-22				
15.	Evening	Master of Public Administration (18 Years)	3 rd	2019-21				
16.	Evening	MS HRM	1 st	2020-22				
17.	Evening	MS HRM	3 rd	2019-21				
18.	Evening	MS HA	1 st	2020-22	0	0	0	
19.	Evening	MS HA	3 rd	2019-21	Admission was not taken as per HEC directives in 2019			
20.	Regular	Master of Human Resource Management	1 st	2020-22	0	0	0	307
21.	Regular	Master of Human Resource Management	3 rd	2019-21	23	28	51	
22.	Regular	Master of Marketing	1 st	2020-22	0	0	0	
23.	Regular	Master of Marketing	3 rd	2019-21	33	15	48	
24.	Regular	BS (Hons) Management	1 st	2020-24	0	0	0	
25.	Regular	BS (Hons) Management	3 rd	2019-23	23	42	65	
26.	Regular	BS (Hons) Management	5 th	2018-22	26	47	73	
27.	Regular	BS (Hons) Management	7 th	2017-21	29	41	70	314
28.	Replica	Master of Human Resource Management	1 st	2020-22	0	0	0	
29.	Replica	Master of Human Resource Management	3 rd	2019-21	25	22	47	
30.	Replica	Master of Marketing	1 st	2020-22	0	0	0	
31.	Replica	Master of Marketing	3 rd	2019-21	14	6	20	
32.	Replica	BS (Hons) Management	1 st	2020-24	0	0	0	
33.	Replica	BS (Hons) Management	3 rd	2019-23	31	44	75	
34.	Replica	BS (Hons) Management	5 th	2018-22	41	41	82	
35.	Replica	BS (Hons) Management	7 th	2017-21	29	61	90	
36.	Evening	Master of Marketing	4 th	2018-20	29	4	33	149
37.	Evening	Master of Human Resource Management	4 th	2018-20	17	10	27	
38.	Evening	Master of Marketing	2 nd	2019-21	31	4	35	
39.	Evening	Master of Human Resource Management	2 nd	2019-21	28	26	54	
40.	Evening	Master of Marketing	1 st	2020-22	0	0	0	
41.	Evening	Master of Human Resource Management	1 st	2020-22	0	0	0	
Total Students								770



○ **Detail of Enrolled Students**

Bachelor (Morning)

Semester	Session	BS	Male	Female	Total
I	2020-24		0	0	0
III	2019-23		23	42	65
V	2018-22		26	47	73
VII	2017-19		29	41	70
Total			78	130	208

Bachelor (Self-Supporting)

Semester	Session		Male	Female	Total
I	2020-24		0	0	0
III	2019-23		31	44	75
V	2018-22		41	41	82
VII	2017-19		29	61	90
Total			101	146	247

Master (Morning)

Semester	Session	HRM	MMKT		Total
I	2020-22	0	0		
III	2019-21	51	48		
Total		51	48		99

Master (Self-Supporting) Afternoon

Semester	Session	HRM	MMKT		Total
I	2020-22	0	0		0
III	2019-21	47	20		67
Total		47	20		67

Master (Self-Supporting) Evening

Semester	Session	HRM	MMKT		Total
I	2020-20	0	0		
II	2019-20	54	35		89
VI	2018-20	27	33		60
Total		81	68		149

INSTITUTE OF BUSINESS ADMINISTRATION

○ **Basic enrolment**

Sr. No.	Program	No. of Enrolled Students
1	Ph.D in Business Administration	24
2	M.Phil in Business Administration	38
3	MBA 1½ Years (Morning)	126
4	MBA 3½ Years (Afternoon)	114
5	Executive MBA (Evening)	409
6	BBA Hons (Morning)	209
7	BBA Hons (Afternoon)	223
Total		1143



○ **Gender-wise Detail**

Sr. No.	Program	Male	Female	Total
1	Ph.D in Business Administration	10	14	24
2	M.Phil in Business Administration	8	30	38
3	MBA 1½ Years (Morning)	45	81	126
4	MBA 3½ Years (Afternoon)	71	43	126
5	Executive MBA (Evening)	367	42	409
6	BBA Hons (Morning)	92	117	209
7	BBA Hons (Afternoon)	129	94	223
Total		722	421	1143

○ **Employability:** About 75%.

○ **Faculty-student ratio**

No. of Faculty (permanent/contract)	No. of Student (Morning programs)	Faculty-student Ratio
17	397	1:23

INSTITUTE OF BUSINESS & INFORMATION TECHNOLOGY

○ **Basic enrolment**

IBIT has 700 students enrolled out of which 642 are in BBIT (4-Years) and 58 are in MBIT via BBIT program.

○ **Gender-wise detail**

The gender-wise detail of enrolled students in Fall Semester 2019 is as follows

Program		BBIT (4 Years)							
Session	Morning A		Afternoon A		Morning B		Afternoon B		Total
	Male	Female	Male	Female	Male	Female	Male	Female	
F14	0	0	1	0	0	0	0	0	1
F15	1	0	3	1	6	3	5	2	21
F16	6	31	14	24	14	18	23	19	149
F17	12	14	20	20	11	25	17	22	141
F18	8	22	21	20	9	26	20	23	149
F19	17	29	17	28	18	26	16	30	181

Program		MBIT via BBIT							
Session	Morning A		Afternoon A		Morning B		Afternoon B		Total
	Male	Female	Male	Female	Male	Female	Male	Female	
F16	0	1	0	0	0	0	0	0	1
F17	0	2	0	0	0	0	0	0	2
F18	8	13	0	0	0	0	0	0	21
F19	9	25	0	0	0	0	0	0	34

○ **Equity**

All measures are taken to provide safe, inclusive and equitable environment with zero tolerance for discrimination. Department's disciplinary committee takes appropriate action if any such case arises.



○ **Employability**

Director office has invigorated Industrial Liaison Society which organizes job fairs, alumni talks, in-house job interviews/ tests and industrial visits to ensure student employability.

○ **Faculty-Student ratio**

BBIT	MBIT	Total Students	Faculty
642	58	700	34
Faculty-Student Ratio		20	1

Faculty of Education

DEPARTMENT OF SPECIAL EDUCATION

○ **Basic enrolment**

▪ Basic enrolment in M.A in Special Education

M.A. Program	Male students	Female students	Total Number of students
Morning	19	43	62
Self-supporting	19	41	60

▪ Basic enrolment in M.Phil. in Special Education

M.Phil. Program	Male students	Female students	Total Number of students
Morning	06	09	15

▪ Basic enrolment in Ph.D. in Special Education

Ph.D. Program	Male students	Female students	Total Number of students
Regular	03	06	09

○ **Employability**

Approximately 85% graduates of this department have got jobs both in public and private sector

○ **Faculty student ratio**

▪ Student teacher ratio of special education in M.A. in Special Education

Total students	Total teachers	Ratio
122	06	20.33

▪ Basic enrolment in M.Phil. in Special Education

Total students	Total teachers	Ratio
15	06	2.5

▪ Student teacher ratio of special education in Ph.D. in Special Education

Total students	Total teachers	Ratio
09	06	1.5



INSTITUTE OF EDUCATION & RESEARCH

○ **Basic Enrolment**

Program		No. of Students Admitted
Bachelor	Morning	258
	Replica	74
Master	Morning	312
	Replica	208

○ **Gender-wise Detail**

Bachelor Degree	1st Year		2nd Year	
	M	F	M	F
Morning	104	154	36	122
Replica	07	67	09	73
Master Degree				
Morning	81	231	46	285
Replica	47	161	34	176
M.Phil Leading to Ph.D Degree				
Regular	--	--	04	34
Replica	--	--	02	38
Ph.D	--	--	01	09

○ **Employability**

Our graduates have opportunities for getting jobs, in School Education Department, Colleges or Universities level as well as in private sector.

○ **Faculty-Student Ratio**

Faculty		Student Morning	Student Evening	Overall
Type	No.			
Regular	52	1234	807	2041
Contract	0			
Visiting	20			
Total	72			
Student Teacher Ratio		1:17.63	1:11.21	1:28.35

Faculty of Engineering & Technology

INSTITUTE OF ENERGY AND ENVIRONMENTAL ENGINEERING

- **Basic Enrolment:** 122
- **Gender-wise Detail:** Male = 90 Female = 32
- **Employability:** 80%
- **Faculty-Student Ratio:** 1:15.25



DEPARTMENT OF POLYMER ENGINEERING & TECHNOLOGY

○ **Basic Enrolment**

Program	Year of Enrolment	No. of Students
Ph.D Polymer Technology	2014	14
Ph.D Polymer Technology	2015	12
Ph.D Polymer Technology	2018	11

○ **Equity**

All students in department are enrolled on merit basis as per University/HEC rules and all facilities are provided to them on equity.

○ **Gender-wise Detail (in tabulated form for all programmes)**

Programme	Males	Females	Total
Ph.D Polymer Technology	18	15	33

○ **Employability**

The graduated students of M.Phil. Polymer Technology Program are employed in Polymer Industries in Pakistan and also got admission in foreign Universities of UK, Ireland, Australia and Germany for Ph.D. Brief data of alumni of the department working in academics and in industries is provided below.

○ **Faculty-Student ratio**

Student Faculty Ratio for M.Phil Polymer Technology

Session	No. of Students	No. of Teachers	Student Faculty Ratio
2018-20	0	6	0

Student Faculty Ratio for Ph.D Polymer Technology

Session	No. of Students	No. of Teachers	Student Faculty Ratio
2014	14	6	2.5:1
2015	08	6	1.5:1
2018	11	6	2.0:1

DEPARTMENT OF METALLURGY & MATERIALS ENGINEERING

○ **Basic Enrollment**

Program		No. of Students Admitted				No. of Seats Sectioned	
		Merit		Reserved		Merit	Reserved
		M	F	M	F		
Bachelor	Regular Program	32	04	11	--	36	14
	Self-Supporting Program	30	05	--	--	50	--
M. Phil / M.Sc.(Engg.)	Evening	12	--	--	--	40	--



○ **Gender-Wise Detail**

Bachelor Degree

	1st Year		2nd Year		3rd Year		4th Year	
	M	F	M	F	M	F	M	F
Regular Program	43	04	42	03	29	06	35	05
Self-Supporting Program	30	05	29	10	25	04	28	02

M.Phil / M.Sc. (Engg.) Degree

	1st Year		2nd Year	
	M	F	M	F
Evening	12	--	08	03

M.Phil / M.Sc. (Engg.) Degree

	3rd Year		5th Year	
	M	F	M	F
Regular	07	01	05	01

○ **Employability:**

Most of our graduates get jobs in Govt. and private sector. In Govt. sector, our students are serving in Pakistan Atomic Energy Commission, Pakistan Steel Mills, Heavy Mechanical Complex, NDC, AWC, Wah Ordinance factory, etc. In Private sectors, our students are serving in Descon, Steel mills, Foundaries, Plastic industry, Rolling mills, etc. Every year, a good proportion of our students also obtain jobs in Middle East.

○ **Faculty-Student Ratio**

Department	Total Students in Undergraduate Program	No. of Teachers	Student-Teacher ratio
Metallurgy and Materials Engineering	298	16	18.62

INSTITUTE OF CHEMICAL ENGINEERING & TECHNOLOGY

○ **Basic Enrolment**

4-years B.Sc Chemical Engineering program enrollment

	Applicants	Enrolled
Regular Programme	1741	49
Self-Supporting Programme	577	50

○ **Equity**

The student's enrollment programmes offered at the Institute is purely on merit basis. However, there are few reserved seats offered to the students from other provinces (Balochistan, FATA, AJK, KPK and Gilgit Baltistan) of Pakistan. Access to the facilities is provided to the students on equity.

○ **Gender-wise detail**

▪ 4-year B.Sc Chemical Engineering program enrollment

	Male	Female
Regular Programme	30	19
Self-Supporting Programme	43	7



- 2-years M.Sc Chemical Engineering Program enrollment

Male	Female
31	6

- **Employability**

The graduates of the Institute are serving in industrial sector as well as R & D organizations in Pakistan and abroad. Career Counseling cell is established at Institute level & recruitment drives are been conducted every by different organizations.

- **Faculty-student ratio**

4-year B.Sc Engineering Program and 2-years M.Sc. Engineering Program

Program	B.Sc Engineering	M.Sc Engineering
Student Teacher Ratio	20:1	10:1

DEPARTMENT OF ELECTRICAL ENGINEERING

- **Basic enrolment:** 37 Students Intake (B.Sc. Electrical Engineering)

- **Gender-wise Detail**

B.Sc. (Engg.) Electrical Engineering

Years of Education	(M)	(F)	Total (M)	Total (F)	Grand Total
1st year	29	08	29	08	37
2nd year	29	10	29	10	39
3rd year	28	08	28	08	36
4th year	41	5	41	5	46

- **Faculty-Student ratio**

- Full-time engineering faculty (minimum of 8), and matching student-faculty ratio of 25:1.
- Department has 13 faculty members and student faculty ratio is 11:1.

INSTITUTE OF QUALITY & TECHNOLOGY MANAGEMENT

- **Basic enrolment:**

Overall, 101 students were enrolled

- **Gender-wise detail**

Programme	2019-20		Total
	Male	Female	
BSc Industrial Engineering & Management	22	09	31
MSc Quality & Performance Management	09	20	29
MS Industrial Engineering & Management (Evening)	17	02	19
PGD (Evening)	17	5	22
Grand Total			101

- **Employability**

Alumni of this Institute are working in wide range of Industries all over the globe. Some alumni are even teaching in foreign Universities. All the programs have established their relative worth in the job market and Institute focus on improving curriculum as per needs of the employer and on feedback of Alumni.



○ **Faculty-student ratio**

Programme	Faculty-Student Ratio
BSc Industrial Engineering & Management	1:8
MSc Quality & Performance Management	1:2
MS Total Quality Management	1:5
MS Industrial Engineering & Management	1:2
PhD Total Quality Management	1:3

Faculty of Islamic Studies

INSITUTE OF OF ISLAMIC STUDIES

○ **Gender-wise Detail**

Sr. No	Name of Programme	Number of Students	Male	Female
1	BS Islamic Studies (SWR)	69	07	62
2	M.A Part-I	100	31	69
3	M.A Part-II	93	24	69
4	M.A Part-I (S.S)	52	12	40
5	M.A Part-II (S.S)	28	09	24
6	M.Phil Isl. St.	30	22	08
7	M.Phil (S.S of W.R.S.S)	32	17	15
8	M.Phil (S.in Isl. ECO. S.S)	29	23	06
9	Ph.D 2018	15	13	02

○ **Faculty-student ratio**

Sr. No.	Name of Programme	Number of St.	Teachers	Ratio
1	B.S Isl. St.	69	16	4..31
2	M.A Isl. St. Part-I	100	13	7.69
3	M.A Isl. St. Part-II	93	13	7.1
4	M.A Isl. St Part-I (S.S)	28	16	1.75
5	M.Phil	30	08	3.75
6	Ph.D	15	06	2.05

SHEIKH ZAYED ISLAMIC CENTRE

○ **Basic enrolment: 381**

M.Phil. Islamic Studies: 60, Ph.D. Islamic Studies: 42

○ **Gender-wise Detail**

Bachelor degree

	1 st Year		2 nd Year		3 rd Year		4 th Year	
	M	F	M	F	M	F	M	F
Morning	64	60	52	51	26	48	30	50

M.Phil. Degree

	1 st Year		2 nd Year	
	M	F	M	F
Morning	19	11	11	19

**Ph.D. Degree**

	1 st Year		2 nd Year		3 rd Year		4 th Year		5 th Year	
	M	F	M	F	M	F	M	F	M	F
Regular	-	-	-	-	15	-	9	6	7	5

○ **Faculty-Student ratio**

The faculty and students ratio is 1:74

Faculty of Law

PUNJAB UNIVERSITY LAW COLLEGE

- **Gender-wise Detail:** Male 1282, Female 315
- **Employability:** After LL.B Degree number of students got opportunity as Civil Judges/ Attorneys/Prosecutors etc through open competition
- **Faculty-student ratio:** 1: 25

Faculty of Life Sciences

CENTRE FOR CLINICAL PSYCHOLOGY○ **Basic enrolment**

Sr. No.	Name of Programme	No. of Seats Per Year
1	Ph.D. in Clinical Psychology	10
2	MS Programme in Clinical Psychology (2 Years)	15
3	MS in Speech & Language Pathology	15
4	Advanced Diploma in Clinical Psychology (Morning)	20
5	Advanced Diploma in Clinical Psychology (Self Supporting)	15
6	BS (Hons.) in Clinical Psychology	31

○ **Equity**

Sr. No.	Name of Programme	No. of Seats Per Year
1	Ph.D. in Clinical Psychology	Nil
2	MS Programme in Clinical Psychology (2 Years)	15
3	MS in Speech & Language Pathology	Nil
4	Advanced Diploma in Clinical Psychology (Morning)	20
5	Advanced Diploma in Clinical Psychology (Self Supporting)	15
6	BS (Hons.) in Clinical Psychology	23



○ **Gender-wise Detail**

Sr. No.	Name of Programme	Male	Female	Total
1	Ph.D. in Clinical Psychology	0	14	14
2	MS Programme in Clinical Psychology + One year	0	29	29
3	MS in Speech & Language Pathology	1	28	29
4	Advanced Diploma in Clinical Psychology (Morning)	3	29	32
5	Advanced Diploma in Clinical Psychology (Self Supporting)	-	-	-
6	BS (Hons.) in Clinical Psychology	5	66	71

○ **Employability**

The degree holders are appointed as Clinical Psychologists in different teaching hospitals, Pakistan Army, Private Organizations and different fields in government and private setups.

CENTRE OF EXCELLENCE IN MOLECULAR BIOLOGY

○ **Basic Enrolment: 120**

○ **Gender-wise Detail**

M. Phil			Ph.D		
Male	Female	Total	Male	Female	Total
22	28	50	-	-	-

○ **Employability**

Employability of the graduate from this Centre is applicable to the research, teaching, public/ private sectors.

○ **Faculty-Student Ratio**

Number of Faculty Member	Number of Students	Faculty Student Ratio
40	120	1:3

DEPARTMENT OF BOTANY

○ **Basic enrolment**

Programme	Students
	2019-20
BS	135
M.Sc.	189
MS	76
M.Phil	75
PhD Regular / Old Scheme	91
Total	566

○ **Equity**

The student's enrollment programmes offered at the Institute is purely on merit basis. However, there are few reserved seats offered to the students from other provinces (Balochistan, FATA, AJK, KPK and Gilgit Baltistan) of Pakistan. Access to the facilities is provided to the students on equity.



○ **Gender-wise Detail**

All Programmes	Male	Female
Bachelor Morning (BS Botany)	17	118
Master Morning (M.Sc. Botany Regular/Replica)	12	177
M. Phil Botany (Regular/Replica)	16	59
MS Botany (Regular/Replica)	07	69
PhD Botany (Regular/In-Service)	14	77
Total:	66	500

○ **Employability**

Students at the Institute of Botany serve in different fields: Government, Semi-Government and Private sectors, particularly in Educational Institutions and Civil Services.

○ **Faculty-student ratio**

Total Students	Faculty	Ratio
566	18	31.44

DEPARTMENT OF MICROBIOLOGY & MOLECULAR GENETICS

○ **Basic enrolment**

Programme	Students
BS 2016	36
BS 2017	33
BS 2018	42
BS 2019	41
M.Sc. 2019	32
M.S. 2019	26
M.Phil. 2019	22
Ph.D. 2019	12

○ **Gender-wise Detail**

Year/Semester	Bachelor			Master			M.S/M.Phil			Ph.D.		
	M	F	Total	M	F	Total	M	F	Total	M	F	Total
1 st Semester				04	27	31	12	39	51	05	06	11
2 nd Semester	05	36	41									
3 rd Semester				1	30	31	10	41	51			
4 th Semester	04	38	42				08	18	26	00	07	07
5 th Semester										03	07	10
6 th Semester	04	29	33							03	10	13
7 th Semester										00	03	03
8 th Semester	03	33	36							04	06	10
9 th Semester										05	18	23
10 th Semester										06	09	15
12 th Semester												
Sub-Total	16	136	152	05	57	62	30	98	128	26	66	92
Total Students	434											



○ **Employability**

- The graduate and postgraduates from this department are absorbed in hospitals, diagnostic laboratories, pharmaceuticals, food industry, research organization, universities and education department.
- Provide technical assistance for different instrumentation to sole agents and suppliers
- Our Alumni has also setup their own diagnostic Laboratories in different cities
- Alumni has also hired in international universities and organizations.
- Many students got scholarships and positions in national and international research organizations

○ **Faculty-student ratio**

Students	Faculty	Ratio
434	26	16.69

DEPARTMENT OF SPORTS SCIENCES & PHYSICAL EDUCATION

○ **Basic enrolment**

BS Physical Education

- Total 54 students in Regular and Total 52 students in Replica

M.Sc. Physical Education

- Total 40 students enrolled in Morning and Total 40 Students enrolled in Evening

○ **Gender-wise Detail**

M.Sc. Physical Education

- Morning Male: 16 Female: 24, Evening Male: 23 Female: 18

BS Physical Education

- Morning Male: 31 Female: 53, Replica Male: 49 Female: 03

○ **Employability**

There is 90% passed out students selected as Lecturer, Tehsil Sports Officer and PET in education department and other working in leading private organizations.

DEPARTMENT OF ZOOLOGY

○ **Basic enrolment**

Regular Scheme (Morning)

	Bachelor			Master			M.Phil/ M.S.			Ph.D.		
Part	M	F	T	M	F	T	M	F	T	M	F	T
Part-I	M	F	T	M	F	T	M	F	T	M	F	T
Part-II	-	-	-	6	44	50	-	-	-	-	-	-
1 st semester	-	-	-	5	51	56	-	-	-	-	-	-
3 rd Semester	7	43	50	-	-	-	11	19	30	-	-	-
5 th Semester	7	21	28	-	-	-	4	26	30			
7 th Semester	6	19	25	-	-	-	-	-	-	23	25	48
9 th Semester	5	18	23	-	-	-	-	-	-	16	32	48
Total:	-	-	-	-	-	-	-	-	-	18	38	56
	25	101	126	11	95	106	15	45	60	57	95	152

**Self Supporting (Evening)**

	Bachelor			Master			M.Phil/ M.S.		
Part	M	F	T	M	F	T	M	F	T
Part-I	-	-	-	08	54	62	8	27	35
Part-II	-	-	-	10	51	61	9	21	30
1 st Semester	10	36	46	-	-	-	-	-	-
Total:	10	36	46	21	104	123	17	48	65

- **Faculty-student ratio**

Students : Faculty

30 : 1

INSTITUTE OF AGRICULTURAL SCIENCES

- **Basic enrolment**

BS (Hons.) 615

M.Sc. (Hons.) 97

Ph.D. 94

- **Gender-wise Detail**

BS (Hons.) 261 (Male) 354 (Female)

M.Sc. (Hons.) 50 (Male) 47 (Female)

Ph.D. 53 (Male) 41 (Female)

- **Employability**

There is lot of chances for the students to search their jobs in the field of Agriculture and equal opportunities in all other related fields. Now our students are being accepted for all jobs in private and Government organizations.

- **Faculty-student ratio**

BS (Hons.) 1:52

M.Sc. (Hons.) 1:11

Ph.D. 1:04

INSTITUTE OF APPLIED PSYCHOLOGY

- **Basic Enrolment**

The admission in all the programs is done on the basis of merit.

Program	Basic Enrolment
BS (Morning)	48
BS (Replica)	40
M.Sc. (Morning)	48
M.Sc. (Replica)	50
M.Phil Applied Psychology	18
MS Health Psychology	10
Ph.D	Admission (new intake) was halted / stopped by the HEC



○ **Gender-wise Detail**

Class	Semester	Male	Female
BS (Morning)	Semester-I	04	44
	Semester-III	03	30
	Semester-V	02	31
	Semester-VII	03	33
BS (Replica)	Semester-I	03	37
	Semester-III	02	33
	Semester-V	02	34
	Semester-VII	04	31
M.Sc. Morning	Semester-I	08	40
	Semester-III	03	39
M.Sc. Replica	Semester-I	04	46
	Semester-III	03	45
M. Phil	Semester-I	01	19
	Semester-III	01	17
MS Health Psychology	Semester-I	03	07
	Semester-III	00	12
Ph. D	Research Work	02	08
	Research Work	02	09
	Research Work	02	05
	Research Work	02	04
	Research Work	01	03
	Research Work	01	03
	Research Work	02	07
Total Male 56		Total Female 537	
Total:		593	

○ **Employability**

Our graduates are serving in wider settings, i.e. Universities, Colleges, Special Education Institutes, Hospitals, NGOs, Armed Forces, Pakistan Navy and also as Consultants. Employability is quite high and they working as academicians, researchers and as private practitioners.

○ **Faculty-Student ratio**

No. of Faculty	No. of Students	Ratio
Permanent Faculty =11 One Faculty Members on PhD Study Leave)	311	1:28

INSTITUTE OF BIOCHEMISTRY & BIOTECHNOLOGY

○ **Basic enrolment**

Name of Program	Enrolment
BS Biochemistry	39
BS Biotechnology	39
M. Sc. Biochemistry/ Biotechnology	35
MS Biochemistry	20
MS Biotechnology	20



○ **Gender-wise Detail**

Regular Fee		BS 4 Years			Master			MS			PhD		
Semester		M	F	Total	M	F	Total	M	F	Total	M	F	Total
Part-I	1 st	19	59	78	2	33	35	6	34	40	0	0	0
Part-II	3 rd	11	40	51	2	30	32	4	35	39	0	0	0
Part-III	5 th	8	49	57	0	0	0	0	0	0	0	0	0
Part-IV	7 th	7	36	43	0	0	0	0	0	0	0	0	0
PhD Students		0	0	0	0	0	0	0	0	0	12	33	45
Total		45	184	229	4	63	67	10	69	79	12	33	45

○ **Employability**

Owing to the high-class training provided, our graduates are highly competitive with others in the job market. Excellent career opportunities therefore await the graduates qualifying from this Institute. Our alumni are working in ICI, LUMS, Punjab forensic agency, different research organizations like CEMB, PCSIR, Food industry, Fermentation industry, Drug testing laboratories, Hospitals, Diagnostic labs, Colleges through Punjab Public Service Commission, Pharmaceutical industry and a number of Foreign universities as researcher and faculty members. The graduates of the Institute are able to fill up the existing vacuum of well-trained manpower in the sectors of agriculture, health, industry and education.

○ **Faculty-student ratio**

Class	Faculty (Regular/Visiting)	Students	Teacher Students ratio
BS	16	229	1:14
M. Sc.	11	67	1:6
MS	12	79	1:6
PhD	08	45	1:5

SCHOOL OF BIOLOGICAL SCIENCES

○ **Basic enrolment:**

- Ph.D. Students = 15
- M.Phil. Students = 25

○ **Gender-wise Detail**

Programme	Male Students	Female Students	Total
Ph.D. Biological Science	6	57	63
M.Phil. Biological Science	3	22	25
Total	9	79	88

○ **Faculty-student ratio**

Sr #	Description	Numbers
1	Total faculty members	21
2	PhD faculty members	20
3	MPhil faculty members	01
4	Total PhD students in your Dept/ Institute	63
5	Total MS/ MPhil students in your Dept/ Institute	25
6	Student/Teacher ratio in PhD program	4:1 (Student/Teacher)
7	Student/Teacher ratio in MS/MPhil program	2:1 (Student/Teacher)



CENTRE FOR APPLIED MOLECULAR BIOLOGY

○ **Basic enrolment**

Programme	2019-20
M. Phil	Intake delayed due to HEC approval
Ph.D	10

○ **Equity:** All admissions were offered purely on open merit

○ **Gender-wise Details**

Programme	2019-20	
	Male	Female
Ph.D	1	09

○ **Employability**

CAMB has passed out its fourth batch of 28 students of M.Phil session (2018-20). Out of these, some have been employed in various public and private sectors, one student got foreign Ph.D scholarship and remaining have been accommodated in Ph.D admissions locally.

○ **Faculty-student ratio**

Programme	2019-20		
	Student	Teacher	Ratio
M. Phil	28	6	1:4
Ph.D	28	10	2:8

Faculty of Health Sciences

FACULTY OF HEALTH SCIENCES

○ **Basic enrolment**

Sr. No.	Admission/ Discipline name	Number of students
1	Doctor of Physiotherapy	13
2	Medical Lab Technology	9
3	Operation Theater Technology	8
4	Medical Imaging Technology	9
5	Cardiac Perfusion Technology	8
6	Optometry	9
7	Dental Technology	6
8	Anesthesia Technology	8
	Total	70

○ **Gender-wise Detail:**

Sr. No.	Admission/ Discipline name	Number of students	No. of Boys	No. of Girls
1	Medical Lab Technology	9	2	7



2	Medical Imaging Technology	9	0	9
3	Operation Theater Technology	8	4	4
4	Doctor of Physiotherapy	13	3	10
5	Cardiac Perfusion Technology	8	1	7
6	Optometry	9	3	6
7	Dental Technology	6	2	4
8	Anesthesia Technology	8	1	7
	Total	70	16	54

Faculty of Oriental Learning

DEPARTMENT OF ARABIC

- **Basic enrolment**
Total Enrolled Students = 165
- **Gender-wise Detail**
Male = 84, Female = 81
- **Faculty-student ratio**
1 Teacher = 21 Students

DEPARTMENT OF KASHMIR STUDIES

- **Basic enrolment**
 - 09 students are admitted in M.A Kashmiryat Part-I
- **Gender wise Detail**

Programs	Session	Male	Female
M. A. Kashmiryat	2019-20	05	04
- **Employability:** Can adjust in different projects regarding Kashmir especially water resources.
- **Faculty Student Ratio**

Faculty of Kashmiryat	Student Ratio
04 Ph.D Teachers	30
01 Non Ph.D Teacher	

DEPARTMENT OF PERSIAN

- **Basic enrolment**
 - 46 students are admitted in M.A Persian Part-I
 - 22 students are admitted in M.A Persian Part-I
 - 20 students are admitted in M.Phil Persian (Fall Session)
 - 07 students are admitted in M.Phil Persian (Fall Session)
- **Gender wise Detail**

Programs		Male	Female
M.A Persian Part-II	Session 2019-21	22	17
M.A Persian Part-I	Session 2020-22	13	09



M.Phil Persian Part-II (2019-2021 Fall Session)	08	12
M.Phil Persian Part-I (2020-2022 Fall Session)	03	04
Ph.D Persian 2015-2020	4	5
Ph.D Persian 2016-2021	5	1
Ph.D Persian 2017-2022	7	8
Ph.D Persian 2018-2023	4	4

○ **Faculty Student Ratio**

Faculty of Persian	Student Ratio
08 Ph.D Teachers	

DEPARTMENT OF URDU

○ **Basic enrolment**

- 68 students are admitted in M.A Urdu for the Year 2019
- 63 students are admitted in M.A Urdu for the Year 2020
- 34 students are admitted in M.Phil Urdu in 2019
- 22 students are admitted in M.Phil Urdu in 2020

○ **Gender wise Detail**

Programs	Male	Female
M.A Urdu 2019-21	32	36
M.A Urdu 2020-22	31	32
M.Phil Urdu 2019-21	23	11
M.Phil Urdu 2020-22	12	10
Ph.D Urdu 2015-20	11	05
Ph.D Urdu 2017-21 (Spring)	8	12
Ph.D Urdu 2017-22 (Fall)	8	9
Ph.D Urdu 2018-23	20	3

○ **Faculty Student Ratio**

Faculty of Urdu	Student Ratio
08 Ph.D Teachers	32.87

CONFUCIUS INSTITUTE

○ **Gender-wise Detail**

Number of students enrolled

Sr.	CLC Level	Male	Female	Total
1	CLC 1	83	27	110
2	CLC 2	31	19	50
3	CLC 3	51	21	72
4	CLC 4	32	16	48
5	CLC 5	8	6	14
6	CLC 5+	1	3	4
	Total	206	92	298



○ **Employability**

Our students get job of Chinese translator in Chinese company. Also, our students are working in some govt. department i.e. orange line train.

○ **Faculty-Student ratio**

Faculty-Students ratio

Sr. No.	CLC Level	Total	Number of teachers allocated to each level	Faculty: Students
1	CLC 1	110	2	1:55
2	CLC 2	50	2	1:25
3	CLC 3	72	2	1:6
4	CLC 4	48	1	1:48
5	CLC 5	14	1	1:14
6	CLC 5+	4	1	1:4
Note: The above ratio is according to total number of students in two semesters the actual ratio is even low. We have 2 batches in a semester for each level. Maximum no of students in a batch is 30. So, Each Faculty member can teach maximum 30 students at a time.				

Faculty of Pharmacy

UNIVERSITY COLLEGE OF PHARMACY

○ **Basic Enrollment**

Pharm.D Morning Class

Year	Total
1st Prof	158
2nd Prof	169
3rd Prof	156
4th Prof	182
Final Prof	121
Sub-Total	786

Pharm.D Evening Class

Year	Total
1st Prof	128
2nd Prof	151
3rd Prof	141
4th Prof	176
Final Prof	130
Sub-Total (ii)	726

M.Phil Regular Morning

Year	Total
1 st Semester	47
3 rd Semester	32
4 th Semester	32
Total	111

M.Phil Self Supporting

Year	Total
1 st Semester	42
3 rd Semester	30
4 th Semester	28
Total	100

**Ph.D**

Year	Total
Ph.D 2018	13
Ph.D 2017	16
Ph.D 2015 (old Scheme)	15
Ph.D 2015	19
Ph.D 2014	35
Ph.D 2013	16
Ph.D 2012	10
Total	124

○ **Gender-wise Detail****Pharm.D Morning Class**

Year	M	F	Total
1st Prof	46	112	158
2nd Prof	52	117	169
3rd Prof	31	125	156
4th Prof	34	148	182
Final Prof	22	99	121
Sub-Total	185	601	786

Pharm.D Evening Class

Year	M	F	Total
1st Prof	38	90	128
2nd Prof	44	107	151
3rd Prof	39	102	141
4th Prof	51	125	176
Final Prof	30	100	130
Sub-Total	202	524	726

M.Phil Regular Morning

Year	M	F	Total
1 st Semester	14	33	47
3 rd Semester	11	21	32
4 th Semester	11	21	32
Total	36	75	111

M.Phil Self Supporting

Year	M	F	Total
1 st Semester	07	35	42
3 rd Semester	8	22	30
4 th Semester	6	22	28
Total	21	79	100

Ph.D

Ph.D	Male	Female	Total
Ph.D	03	10	13
Ph.D	10	06	16
Ph.D	12	20	32
Ph.D	07	08	15
Ph.D	09	26	35
Ph.D	10	06	16
Ph.D	08	02	10
Ph.D	59	78	137

○ **Employability**

The College graduate have good employability. The graduate of the College are serving locally as well as internationally.

○ **Faculty-student ratio**



Pharm.D Morning Class		
Teachers	Students	Ratio
28	786	28
Pharm.D Evening Class		
28	726	25.9
M.Phil Regular		
25	111	4.44
M.Phil Self Supporting		
25	100	4
Ph.D		
23	137	5.9

Faculty of Sciences

CENTRE OF EXCELLENCE IN SOLID STATE PHYSICS

○ Basic enrolment

Sr. No.	Name of Program	No. of Seats
1	M.Phil. Solid State Physics	Total: 30 Merit: 18 Reserved: 12
2	M.Phil. Solid State Physics (Replica)	Total: 200 Merit: 200 Reserved: 0
3	M.Phil. Microelectronic Engineering & Semiconductor Physics	Total: 17 Merit: 15 Reserved: 2
4	MS. Nanotechnology	Total: 13 Merit: 10 Reserved: 3
5	Ph.D.	Total: 10 Merit: 10 Reserved: 0

○ Gender-wise Detail

Sr.	Session	Programme	Gender Wise		Total
			Male	Female	
1	2018-2020	M.Phil.	22	8	30
	2019-2021	Solid State Physics	16	10	26
	2018-2020	M.Phil.	89	59	148
	2019-2021	Solid State Physics (Replica)	151	49	192
	2018-2020	M.Phil.	10	7	17
	2019-2021	Microelectronic Engineering & Semiconductor Physics	12	4	15
	2018-2020	MS. Nanotechnology	7	6	13
	2019-2021		6	7	13



2	2015-2020	Ph.D.	-	1	1
	2016-2021		1	1	2
	2017-2022		2	2	4
	2018-2023		-	4	4
	2019-2024		5	4	9

○ **Employability**

These graduates are being employed by Education departments, R&D departments and some go for Ph.D.

○ **Faculty-student ratio**

Sr.	Teacher	Students
1.	57 Teachers	08 students per teacher

CENTRE FOR HIGH ENERGY PHYSICS

○ **Basic enrollment**

Report: Following students were admitted:

PhD: 01, MPhil: 25, MSc: 85, BS: 83.

○ **Gender-wise detail**

PhD: 00M, 01F, MPhil: 16M, 09F, MSc: 48M, 37F, BS: 42M, 41F

○ **Faculty-student ratio:**

Report: Almost 22.5 students per teacher: Total Faculty: 24
(visiting: 7 and regular/contractual: 17, for 540 students)

CENTRE FOR INTEGRATED MOUNTAIN RESEARCH

○ **Basic Enrolment**

▪ B.Sc. (Morning) 39, M.Sc. (Morning) 14, M.Phil. (Morning) 23, Ph. D. 18

○ **Gender -wise Detail**

Program	Male	Female
BS (Morning)	25	14
M.Sc. (Morning)	07	07
M.Phil. (Morning)	14	09
Ph. D.	15	3
Total	62	33
G. Total	94	

○ **Employability**

The Centre's graduates are highly demanding and are employed in national and international organizations both in public and private sectors. These organizations include:

- Water and Power Development Authority (WAPDA)
- Pakistan Council of Research in Water Resources (PCRWR)
- International Water Management Institute (IWMI)
- Climate Change, Alternate Energy and Water Resources Institute (CAEWRI), NARC, Islamabad.
- Pakistan Agriculture Research Council (PARC), Islamabad.



- Soil Conservation Department
- Pakistan Tourism Development Cooperation
- Sustainable Tourism Foundation of Pakistan
- Urban Unit Department
- Environment Protection Agency
- Forest Department
- Pakistan Meteorological Department
- Soil Survey of Pakistan
- Survey of Pakistan
- Universities/colleges in Pakistan
- Consulting firms/NGOs as NESPAK, ACE, PES, NDC, WFF and others

○ **Faculty-Student Ratio**

No. of Faculty	No. of Students	Ratio
6	94	1:16

COLLEGE OF EARTH & ENVIRONMENTAL SCIENCES

○ **Basic Enrolment**

Basic student enrollment at the College of Earth and Environmental Sciences in various degree programs during the academic session 2018-19 is as detailed below:

Sr. No.	Degree Program	Total Enrollment
1.	BS Environmental Sciences (Morning)	140
2.	BS Environmental Sciences (Evening)	191
3.	M.Sc. Applied Hydrology (Morning)	34
4.	M.Sc. Tourism & Hospitality Management (Morning)	49
5.	M.Sc. Environmental Sciences (Evening)	91
6.	M.Sc. Tourism & Hospitality Management (Evening)	62
7.	MS / M.Phil. Environmental Sciences (Morning)	39
8.	M.Phil. Applied Hydrology (Morning)	15
9.	M.Phil. Geomatics (Morning) Program	23
10.	M.Phil. Occupational Health and Safety (Morning)	26
11.	MS / M.Phil. Environmental Sciences (Self-Supporting Evening)	34
12.	M.Phil. Geomatics (Self-Supporting, Evening) Program	19
13.	M.Phil. Occupational Health and Safety (Self-Supporting)	19
14.	PhD Environmental Sciences	44
15.	PhD Applied Hydrology	08
16.	PhD Geomatics	19
Total:		813



○ **Gender-wise Detail**

Program / Discipline	No. of students	
Class/Discipline/Program	Male	Female
BS Morning: 1 st Semester	09	41
3 rd Semester	08	21
5 th Semester	07	26
7 th Semester	07	21
BS Evening: 1 st Semester	09	52
3 rd Semester	06	35
5 th Semester	10	38
7 th Semester	09	32
MSc Applied Hydrology: 1 st Semester	02	16
3 rd Semester	04	12
MSc Tourism & Hospitality Management (Morning): 1 st Semester	16	09
3 rd Semester	16	08
M.Sc. Environmental Sciences (Evening): 1 st Semester	05	38
3 rd Semester	08	40
MSc Tourism & Hospitality Management (Evening): 1 st Semester	18	12
3 rd Semester	28	04
MS Environmental Sciences (Morning): 3 rd Semester	08	31
MPhil Applied Hydrology: 3 rd Semester	07	08
MPhil Geomatics (Morning): 3 rd Semester	17	06
MPhil OHS (Morning) 1 st Semester	00	00
3 rd Semester	18	08
M.Phil. Environmental Sciences (Evening): 1 st Semester	00	00
3 rd Semester	11	23
MPhil Geomatics (Evening): 1 st Semester	00	00
3 rd Semester	09	10
MPhil OHS (Evening): 3 rd Semester	15	04
Ph.D. Environmental Science: 3 rd , 5 th , 7 th , 9 th , 11 th , 13 th Semester	07	37
Ph.D. Applied Hydrology 3 rd , 5 th , 7 th , 9 th , 11 th , 13 th Semester	05	03
PhD Geomatics: 3 rd , 5 th , 7 th , 9 th , 11 th ...Semesters	12	07
Total	271	542

○ **Employability**

1. Environmental Protection Department (EPD)
2. WAPDA, Pakistan
3. PCRWR
4. SNGPL, Pakistan
5. Lahore Waste Management Company
6. Health & Safety Sector of Pakistan & UAE
7. WAPDA



8. Forest Department
 9. WWF Pakistan
 10. Research Organizations
 11. Universities having Environmental Sciences Department
 12. Hotels/Resorts in Pakistan & UAE
 13. Industrial Organization
- **Faculty-Student Ratio**
During the report period College of Earth and Environmental Sciences has a total strength of 397 students in regular / Morning graduate & postgraduate degree programs and has 24 budgetary posts with total available strength of 18 permanent faculty members.
Accordingly Teacher-Student ratio is: 1:22

COLLEGE OF STATISTICAL & ACTUARIAL SCIENCES

- **Basic enrolment:** 1139

- **Gender-wise Detail**

Bachelor Degree

Program Bachelor		1 st Year		2 nd Year		3 rd Year		4 th Year	
		M	F	M	F	M	F	M	F
BS Statistics	Morning	20	39	19	39	4	46	6	43
	Replica	19	40	15	24	23	29	9	28
BS Operation Research	Morning	-	-	-	-	9	26	16	23
	Replica	-	-	-	-	9	10	10	15
BS Actuarial Science	Morning	-	-	-	-	16	23	17	28
	Replica	-	-	-	-	22	13	16	16
Total								672	

Master Degree

	1 st Year		2 nd Year	
	M	F	M	F
M.Sc. Statistics (Morning)	16	36	10	44
M.Sc. Actuarial Science (Morning)	11	27	13	34
M.Sc. Statistics (Replica)	13	26	13	24
M.Sc. Actuarial Science (Replica)	-	-	2	2
MIOM (Evening)	-	-	6	15
MBSM (2 sections) (Evening)	17	25	34	47
Total			588	

M.Phil Degree

	2 nd Year	
	M	F
Regular	7	27
Total	32	

**Ph.D. Degree**

	1 st Year		2 nd Year		3 rd Year		4 th Year		5 th Year	
	M	F	M	F	M	F	M	F	M	F
Regular	-	-	3	3	1	2	3	5	3	0
	Total									20

○ **Employability**

About 50-60 percent of passed out graduate are able to find the jobs in market. **Industrial Linkages Committee** is facilitating the employer and students.

○ **Faculty-student ratio**

No. of Faculty	No. of Students	Ratio
15 + 51 = 66 (Permanent / Contract & Visiting)	1139	1:17

DEPARTMENT OF GEOGRAPHY○ **Basic enrolment:** 265○ **Gender-wise Detail**

Sr. No.	Programme	Male	Female	Total
1.	BS	63	76	139
2.	M.Sc.	22	42	64
3.	M.Phil	15	26	41
4.	Ph.D.	4	17	21

○ **Employability**

The graduates of this department are being accommodated in various government as well as non- government organizations like education department, Census of Pakistan, Survey of Pakistan, WWF, research organizations and can perform well in PCPSC, FCPS, Urban Unit, competitive examination held by the federal and provincial governments.

○ **Faculty-student ratio**

No. of Faculty Member	No of Students	Ratio
9	265	29.44

DEPARTMENT OF MATHEMATICS○ **Basic enrolment:** 459○ **Gender-wise Detail**

Level of Education	Male	Female
Bachelor Morning 1 st Year (1 st Semester)	10	25
2 nd Year (3 rd Semester)	11	16
3 rd Year (5 th Semester)	07	23
4 th Year (7 th Semester)	03	25
Master Morning:	27	43



[Includes executive courses as well] 16 years of Education: 1 st Year		
2 nd Year (3 rd Semester)	12	52
Master Evening 1 st Year	45	36
2 nd Year	--	--
M. Phil. 1 st Year (2nd Semester)	27	22
2 nd Year (3 rd Semester)	14	28
PhD: 1 st Year (1 st Semester)	01	01
2 nd Year (3 rd Semester)	04	04
2 nd Year (4 th Semester)	02	02
3 rd Year (5 th Semester)	00	04
4 th Year (7 th Semester)	05	07
5 th Year (8 th Semester)	02	01
	167	289

○ **Employability**

Nineteen (19) Teaching Faculty members.

Twenty five (22) Non-teaching staff.

○ **Faculty-student ratio**

Faculty	Students
19	459

DEPARTMENT OF PHYSICS

○ **Gender-wise Detail**

Bachelor Degree

	1 st Year		2 nd Year		3 rd Year		4 th Year	
	M	F	M	F	M	F	M	F
Morning	12	18	18	16	19	21	17	22

Master Degree

	1 st Year		2 nd Year	
	M	F	M	F
Morning	12	18	13	16

M.Phil Degree

	1 st Year		2 nd Year	
	M	F	M	F
Regular	04	22	11	13

Ph.D. Degree

	1 st Year		2 nd Year		3 rd Year		4 th Year		5 th Year	
	M	F	M	F	M	F	M	F	M	F
Regular	-	-	-	01	-	02	04	03	02	01

○ **Employability**

On average, 70% of the passing-out Physics graduates successfully find jobs after completing their degrees in organizations such as in Pakistan Atomic Energy Commission (PAEC), SUPARCO, Punjab Government Education Department, Public Sector Universities, PCSIR and other Public and Private sector organizations/Departments/Institutes.



○ **Faculty-student ratio**

No. of Faculty	No. of Students	Ratio
19 (Permanent)	257	1: 13.52
19+04=23 (Permanent & Visiting)	257	1:11.17

DEPARTMENT OF SPACE SCIENCE

○ **Basic enrolment**

BS(Morning 31, BS (Replica)43, M.Sc. 17, M.Phil. (Morning) 25, and M.Phil. (Replica)13

○ **Gender-wise Detail**

Bachelor Degree

	1 st Year		2 nd Year		3 rd Year		4 th Year	
	M	F	M	F	M	F	M	F
Morning	23	08	12	10	12	16	12	18
Replica	30	13	30	11	27	13	26	14

Master Degree

	1 st Year		2 nd Year	
	M	F	M	F
Morning	09	08	12	07

M.Phil. Degree

	1 st Year		2 nd Year	
	M	F	M	F
Morning	15	10	07	08
Replica	08	05		

○ **Employability**

Presently, exact data is not available, however, 30 – 40 percent of passed out graduates hunted the jobs.

○ **Faculty-student ratio**

No. of Faculty	No. of Students	Ratio
15 (Permanent)	364	1:24
18+15 = 24 (Permanent /visiting)	364	1:11

INSTITUTE OF CHEMISTRY

○ **Basic enrolment: 233**

○ **Gender-wise Detail**

Program	No. of Students	
	Male	Female
BS	11	49
M.Sc (Morning)	06	68
M.Sc (Evening)	13	67
Ph.D	7	12



○ **Employments**

There is huge market of jobs is opened for the passing out students of the Institute of Chemistry. Students may opt their professional career as teaching organization as well as in industries.

○ Table for teacher to students' ratio

No of Teacher	No of Students
28 (one on study leave)	233

INSTITUTE OF GEOLOGY

○ **Basic Enrollment**

Sr. No	Name of Program	No. of Students Enrolled		Total
		Male	Female	
1	B.S. Applied Geology (Morning)	37	13	50
2	B.S. Applied Geology (Replica)	28	12	40
Total		107	27	90

○ **Gender-wise Detail**

Sr. No	Name of Program	Total Number of Students		
		Male	Female	Total
1	B.S. Applied Geology (Morning)	92	52	144
2	B.S. Applied Geology (Replica)	107	38	145
3	M.Phil Applied Geology (Regular)	04	01	5
4	M.Phil Applied Geology (Under Old Scheme)	03	0	3
5	PhD Applied Geology (Regular)	19	4	23
6	PhD Applied Geology (Under Old Scheme)	26	0	26
TOTAL:		251	95	346

○ **Employability**

Graduate of the Institute of Geology have been employed in following public and private sector organizations in the country and abroad.

- Educational Institutes, Universities and Colleges
- Pakistan Atomic Energy Commission.
- Geological Survey of Pakistan.
- Oil and Gas Development Corporation.
- Hydrocarbon Development Institute of Pakistan.
- National Engineering Services of Pakistan.
- Water and Power Development Authority (WAPDA).
- Meteorological Department of Pakistan
- Pakistan Mineral Development Corporation.
- Punjab Mineral Development Corporation



- Water & Sanitation Agency L.D.A.
 - Road Research Laboratories.
 - Azad Kashmir Mineral Development Corporation.
 - Pakistan Council for Scientific and Industrial Research.
 - Soil Survey of Pakistan.
 - Gemstone Corporation of Pakistan.
 - Resource Development Corporation.
 - Frontier Works Organization.
 - Pakistan Steel Mill.
 - State Cement Corporation
 - Ministry of Natural Resources
 - Museum of Natural History.
 - Industrial Development Finance Corporation.
 - Regional Development Bank of Pakistan.
 - EMCO
 - Ravi Glass
 - Pakistan Oil Field.
 - OxidentalPakistan.
 - Pakistan Petroleum Ltd.
 - Union Texas of Pakistan.
 - Associated Consulting Engineers.
 - Directorate of Land Reclamation.
 - PunjabLand Utilization Authority.
 - Dams Safety Organization.
 - Hydrogeology (WAPDA).
 - Hydrogeology Directorate.
 - Hydrology and Research.
 - Pakistan Council of Research in Water Resources.
 - Cone Drill.
 - Bone Master.
 - Rock Well.
 - Schlumberger International.
 - Mathtach International.
 - LASMO Oil Pakistan Limited.
 - Geo-Consultants Association
- **Faculty Students Ratio: 31:01**



PUNJAB UNIVERSITY COLLEGE OF INFORMATION TECHNOLOGY

- **Basic enrolment:** 2767 Total Enrolment of all programs

- **Gender-wise Detail:**

Students Enrollment (Morning)

Semester	Existing Students Enrollment											
	Bachelor			Master			M.Phil			Ph.D		
	M	F	Total	M	F	Total	M	F	Total	M	F	Total
Fall 2019	160	160	320	18	32	50	44	23	67	4		4
Spring 2019	--	--	--	--	--	--	--	--	--	--	--	--
Fall 2018	153	150	303	23	32	55	57	34	91	3	2	5
Spring 2018	--	--	--	--	--	--	--	--	--	--	--	--
Fall 2017	248	87	335	--	--	--	--	--	--	6	4	10
Spring 2017	--	--	--	--	--	--	--	--	--	--	--	--
Fall 2016	185	95	280	--	--	--	--	--	--	4	3	7
Spring 2016	--	--	--	--	--	--	--	--	--	--	--	--
Fall 2015	--	--	--	--	--	--	--	--	--	3	2	5
Sub-Total (i)	746	492	1238	41	64	105	101	57	158	20	11	31

Self-supporting Program (Afternoon)

Semester	Existing Students Enrollment											
	Bachelor			Master			M.Phil			Ph.D		
	M	F	Total	M	F	Total	M	F	Total	M	F	Total
Fall 2019	131	131	262	29	17	46	--	--	--	--	--	--
Spring 2019	--	--	--	--	--	--	--	--	--	--	--	--
Fall 2018	126	125	251	43	43	86	--	--	--	--	--	--
Spring 2018	--	--	--	--	--	--	--	--	--	--	--	--
Fall 2017	258	74	332	--	--	--	--	--	--	--	--	--
Spring 2017	--	--	--	--	--	--	--	--	--	--	--	--
Fall 2016	197	70	267	--	--	--	--	--	--	--	--	--
Spring 2016	--	--	--	--	--	--	--	--	--	--	--	--
Sub-Total (ii)	712	400	1112	72	60	132	--	--	--	--	--	--

Total Students Enrolment (Morning & Afternoon)

	Bachelor			Master			M.Phil			Ph.D		
	M	F	Total	M	F	Total	M	F	Total	M	F	Total
Total (i)	746	492	1238	41	64	105	101	57	158	13	9	22
Total (ii)	712	400	1112	72	60	132	--	--	0	--	--	--
GRAND TOTAL	1458	892	2350	113	124	237	101	57	158	13	9	22



○ **Employability**

Our enriched and balanced curriculum enables our graduates to meet the changing needs of employers. Every year, more than 50% of our graduates were hired before the end of their degree.

○ **Faculty-student ratio**

Degree Programs	No. of Students	Student Teacher Ratio
BS	2350	36.1
M.Sc.	237	4:1
M. Phil/PhD	227	3:1

SCHOOL OF PHYSICAL SCIENCES

○ **Basic enrolment**

Different researchers, faculty members & postgraduate students visit SPS in order to use its various equipments in their research projects. School of Physical Sciences is also planning to start its own admission in M. Phil & PhD in the fields of Chemistry, and Physics in the first quarter of 2021.

○ **Equity**

Students and researchers are allowed to use resources of School of Physical Sciences without any gender discrimination, race and cast.

Punjab University Gujranwala Campus

○ **Basic enrollment:** 4064

○ **Gender-wise detail:** Male: 2236, Female: 1828

	Male (Morning)	Female (Morning)	Male (Afternoon)	Female (Afternoon)
BBA (Hons) B & F	101	105	67	39
BBA (Hons)	247	255	268	187
MBA (Hons) 1.5 Year	36	84	-	-
B.Com. (Hons)	226	194	290	127
M.Com. 3.5 Year	60	131	40	55
MA English	24	84	8	18
BS. CS	56	40	84	22
BS. IT	129	135	186	93
MSc IT	27	65	32	64
LL.B 3 Year	90	27	91	20
LL.B 5 Year	136	71	38	12
Total	1132	1191	1104	637



- **Employability**

All the programmes at the Gujranwala Campus are professional in nature and most of the passed out students (male and female) are working at executive positions in certain national and multinational organizations.

- **Faculty Student Ratio:**

One teacher for 68 students (according to only regular faculty member and students of morning programmes).

Punjab University Jhelum Campus

- **Basic enrollment:** 2048

- **Gender-wise detail:** 1239 (Male) 809 (Female)

- **Employability**

Currently, Punjab University Jhelum Campus students are working in different Companies OPPO mobiles Company, Banks and others

- **Faculty Student Ratio:** One teacher for Almost 100 students

6

UNIVERSITY BUILDING ECONOMIES

Chapter

- University-Industry Linkage/Collaboration
- New Initiatives
- Technology Incubation Centre
- Patents
- Internship and Placement Office
- Student Counseling and Career Guidance





CHAPTER

6

University Building Economies

Faculty of Arts & Humanities

COLLEGE OF ART AND DESIGN

○ **Internship and Placement Office**

Internship is part of the BFA, B.Arch, M.A, M.Arch and MFA programs students are encouraged to join different offices during the course of study. Practicing architects are invited in different programs and juries which help then pick the students for job with the required skills.

○ Student counseling and career guidance

Department is member of student affairs committees and we have done as a team effort by all of faculty members of the department.

Summary as under:

Internship and Placement Office

Internship is offered as requirement of the degree of BFA and MFA in a number of organizations both in Public and Private Sector such as:

- Lahore Zoo
- Hospitals
- Newspapers
- Government Sector
- NGOs

The Graduates of College of Art & Design are employed in Public and Private Sector including Publication Houses, Advertising Agencies, Fashion Houses, Print and Electronic Media, Journalism, Interior Design Houses, Freelance Design Consultancies, Photography Studios, Art Criticism, Museum Related Fields such as Curatorship of Galleries, Set and Exhibition Design and Display, Book Illustration and Publishing, Environmental Design, Signage Design, Studio Workshop etc.

DEPARTMENT OF HISTORY & PAKISTAN STUDIES

○ **University-Industry Linkages/Collaboration (for the year 2018-19)**

The department is involved to play its more effective role in the promotion of academic and research collaboration with other universities, departments and other institutions of world. The department has established linkages with scholars and academicians of national and international repute.



- **New Initiative**

Working on ADP and different diploma programs

- **Internship and Placement Office**

The department has been involved in the University's student career counseling and guidance center.

PAKISTAN STUDY CENTRE

- **University-Industry Linkage**

The Centre is trying to play a more effective role in the promotion of academic and research collaboration with other universities, Pakistan Study Centres and other institutions. The Centre has established linkages with scholars and academicians of national and international repute

- **Student Counseling & Career Guidance**

The Centre has been in contact with Punjab University's Student Counseling and Career Guidance Centre.

DEPARTMENT OF FRENCH

- **University – industry linkage/ collaboration:**

Services offered under Research Wing of the French Department

Translation Desk – linking Academia with Industry:

The graduating students participated in various projects in the specialized field of Translation & Interpretership Studies as follows:

- Translation of 3 Scientific Research Articles French/English
- Translation of various Authentic Documents:
 - Academic documents : Degrees, Diplomas, Certificates
 - Travel and Immigration documents: identity card, resident permit, etc.
 - Daily News and Headlines : Selected from French, English and Urdu Newspapers
- Interpretership sessions through Video reportings, and News coverage, etc.
- Critical Study of Machine vs Human Translation in French of a book: "How the Messenger of Allah (peace be upon him) taught his students – the Sunnah in today's classroom" by Jahangir Mahmud.

The services offered under the Research Wing's Translation Desk of the French Department continued facilitating general public despite pandemic and practically provided direct linkage of French Studies with Contemporary Market, Industry and Society.

Research Projects designed to link French Studies with Market & Industry:

Final term thesis work and Research projects conducted at the French Department are designed especially with a view to link the domain of French Studies with the contemporary needs of Market and Industry. In a dual approach, the graduating students are also groomed to start their professional career and offer their services in a variety of areas, ranging from Education to Management, Business and Corporate Sector, and from Mass Communication to Social, Cultural and Anthropological Studies.



○ **New Initiatives**

French Department's Faculty Group on Social Media proved quite helpful in coordinating and delegating the semester tasks to the Teachers. Online meetings of the faculty were also a regular feature especially during the Covid-19 reigned period of March – September 2020. Online strategies were adapted for prompt coordination among Faculty and for instant sharing of office memos and notifications, reminders, class schedules, exam date sheet, etc. and to ensure uninterrupted academic activities and completion of semesters.

○ **Student counseling and career guidance**

- As a continued initiative from previous years, the dedicated faculty of the Department continued providing guidance and solutions to solve students' problems related to everyday life issues.
- Dr Saleha Nazeer and Ms Sabrina A. Rassool jointly conducted sessions on Career Counselling and Professional Grooming of the students.
- Parent Teacher meetings were also organized during the academic semesters to share and discuss the academic performance and intellectual progress of the students with their parents and to apprise them about their children's curricular and extra-curricular activities.

Faculty of Behavioral & Social Sciences

DEPARTMENT OF GENDER STUDIES

○ **University-Industry Linkage / Collaboration**

Continuously in contact with the public and private sector demands. Awareness raising seminars, conference and conducting research on the women & gender current issues on women & gender.

○ **Technology Incubation Centre**

30 computers having 24 hours internet facility

○ **Internship and Placement Office**

Internships: Students internship at women and gender development GOs and NGOs is an in-built component of the degree programme. Each year about 90 students are sent for two months internship in around 30 NGOs/GOs working for women/gender development.

INSTITUTE OF COMMUNICATION STUDIES

○ **Internship and placement Office**

Institute of Communication Studies offer an extensive program for internship more than 200 students gets training as an internee in the leading media and corporate organization of Pakistan.

○ **Students Counseling and Career Guidance**

The function of students counseling and career guidance is performed by the coordinator of the programs. Owing to their proper guidance students get good jobs in field. Mr. Fahad Mahmood, Assistant Professor is a focal person.



INSTITUTE OF SOCIAL & CULTURAL STUDIES

- **University Industry Linkage**
Efforts are underway for MoUs with Punjab Police, Sustainable Development Policy Institute, NESPAK and WAPDA.
- **Internship and Placement Office**
Internship of students is an in-built component of the curriculum taught in all the department of ISCS. This year almost 450 students were placed on internships in different national (Public and Private) as well as international organizations concerning their relevant field.
- **Student Counseling and Career Guidance**
There is a regular activity of providing counseling to students by the permanent faculty at the ISCS. Special seminars have also been organized, inviting experts from the field for providing career guidance to students.

Faculty of Commerce

HAILEY COLLEGE OF BANKING AND FINANCE

- **University – Industry Linkage:**
We have strong College – Industry Linkages. We have collaborated with Insurance Association of Pakistan, Banks, Stock Exchange, Financial Institutions, Social Service Organization /and various Professional Training Institutions.
- **New Initiatives**
We have taken new initiative in form of MOUs with some Industrial Groups, Banks, Insurance Companies and Corporate Sectors for seeking their assistance in improving our educational system.
- **Internship and Placement Office:**
We have institutionalized arrangements for internship and Placement of our graduates. We facilitate participants regarding their Internships in relevant field of study.
- **Student Counseling and Career Guidance:**
Continuous students Counseling and Career Guidance is being provided by various faculty members of our College. This has proved to be very helpful. All faculty members have displayed Students' counseling hours on notice board and their offices doors are open to facilitate the students for solution to academic issues.

Faculty of Economics & Management Sciences

DEPARTMENT OF ECONOMICS

- **New Initiatives**
Initiated research collaboration process with foreign institutes



○ **Student Counseling and Career Guidance**

In order to ensure close connection with student community and to guide them in their educational and professional goals, Department of Economics usually engage faculty member as student advisor who is responsible to serve the following key duties.

- To assist students in course selection process
- To identify students strengths and weaknesses
- To manage and arrange curricular, extra-curricular and recreational activities for students
- To display an interest in development of students
- To provide career guidance

DEPARTMENT OF INFORMATION MANAGEMENT

○ **Student Counseling and Career Guidance**

Continuing Professional and Research Development Cell has been created and following formal and informal efforts are made for Student' Counseling and Career Guidance;

- New comers' formal orientation got started from 2015 and is conducted every year. They are briefed about the program, rules, procedures, facilities etc.
- Outgoing class is given a seminar on starting their career as professionals every year.
- Motivational speakers are regularly invited for students.

INSTITUTE OF ADMINISTRATIVE SCIENCES

- *At national level:* We have linkages with major national and multinational organizations in order to get our graduates placed in professional organizations and create internship and placement opportunities for students enrolled in different programs. In addition, IAS or its faculty have had professional engagement or membership of several international and national professional bodies such as American Association of Public Administration (ASPA), Academy of Management (AoM), British Academy of Management (BAM) and COBRA Network of European Group of Public Administration, UNICEF Pakistan and Punjab Economic Research Institute (PERI) at different points in time.
- *Alumni Meetings:* Our alumni body is a source of continued support for the Institute. The alumni networks that serve the leading organizations throughout the country facilitate existing students through professional interaction, internships and job placements. Alumni network reunions are regularly conducted to strengthen relationships with our stakeholders. IAS receives an overwhelming response in such reunions every year.
- *Internships:* IAS has a very resourceful office of Career Advisory & External Linkages (CAEL). It provides internship opportunities to Masters and BS students in various public, private and civil society organizations. Besides this, it also provides the students with career opportunities in numerous organizations and conduct door step student recruitment sessions to facilitate both students as well as professional organizations.
- *Organizational Visits:* Our students regularly visit professional organizations to get an insight of their professional practices to relate theory and practice and to strengthen the organization and university linkage. Recently, students have visited Nestle, Emirates Logistics Pvt. Ltd, Stylo Pvt. Ltd, Coca-Cola Icecek (CCI), and Kansai Paints.



- *Examination Section:* IAS has a well-managed and active examination section, which deals with the examination related matter for all semesters (Regular/Replica/Evening), manage result declaration, viva arrangements, issue transcripts and other studentship related letters. It also deals with different organizations/banks etc. for studentship verification of their employees. IAS examination section arranges IAS Graduation Ceremony for the recently passed graduates.
- *Endowment Trust and Scholarships:* IAS provides credence to the deserving and qualified students by assisting them financially to live up their dreams for achieving good quality higher education. The institute has launched many scholarships and financial assistance programs based on need cum merit basis. The institute ensures the provision of these services on non-discriminatory and Equal Opportunity (EO) basis. A large number of IAS Alumni members contribute to these scholarships, funds and the trust Professor Dr. Mohammad Afzal Education Trust, IAS. These are as follows:

Regular Programs	Self- Supporting Program
<ul style="list-style-type: none"> ▪ Merit Scholarship ▪ Needy Scholarship ▪ HEC Need Based Scholarship ▪ PEEF Scholarship ▪ Somitomo Scholarship ▪ Friends Education Fund ▪ Regional and District Scholarships ▪ Prof. Dr. Masood Aslam Scholarship 	<ul style="list-style-type: none"> ▪ Merit Scholarship ▪ Student Welfare Fund ▪ HEC Need based Scholarship ▪ PEEF Scholarship ▪ Dr. Afzal Education Trust

- *Gold Medal:* IAS honors first position holders(s) of BS (Hons.) Management program with Prof. Dr. A.R. Jafri Gold Medal. Besides this, Prof. Dr. Muhammad Afzal Gold Medal is given to the position holder(s) of Master of Human Resource Management program.
- *Sports:* IAS also focuses upon the physical development of the students. It arranges annual Sports Gala and encourages students to participate in sports.

Total Scholarships awarded in Year 2019-20

- Ehsaas Scholarship Allocated = 27
- PEEF Scholarship Allocated = 3
- HEC Scholarship Allocated = 7

INSTITUTE OF BUSINESS ADMINISTRATION

○ Technology Incubation Centre

Business Incubation Centre (BIC)

Business Incubation is a business support process that accelerates the successful development of start-up and fledgling companies by providing entrepreneurs with an array of targeted resources and services. The Business Incubation Center (BIC) operated under



ORIC was successfully transferred to Institute of Business Administration (IBA) on March 29, 2016. In this regard, a grant agreement between Higher Education Commission (HEC), Islamabad and University of the Punjab has been signed on 23-05-2018 for establishment of BIC at University of the Punjab. HEC has released first installment of grant amounting to Rs. 6,630,000/-. Establishment of BIC will forge a strong collaboration between the university and industry to find solutions of technological problems locally.

Facilities for Incubatees

The following facilities are provided to incubatees at free of cost.

- Well-furnished offices
- Internet access
- Computer systems
- Access to library
- Access to I.T Lab
- Air conditions

Under BIC consideration, IBA students participated in competition of “battle of brands” organized by Kinnaird College for Women, Lahore on 15th November, 2019.

External Linkages & Placement Resource Centre-Iba

Our Direction Your Destination. Institute of Business Administration External Linkages & Placement Resource Centre (IBA-ELPRC) is committed to help students to define a unique career and life vision, and then to connect them in multidimensional, personalized ways to the resources, people, organizations and opportunities that will enable them to make their visions a reality.

International Linkages. IBA is linked nationally with several institutions in respect of academics and research. Over the years, we are expecting to grow further in terms of relationships with national and multi-national organizations.

External Linkages. To build a successful partnership with public and private sector organizations, IBA-ELPRC has provided excellent opportunities for students. By developing working relationships with other institutions, expands its resource base and helps in meeting some of new demands.

Objectives

- To provide an exciting learning experience to enhance the brand image of IBA.
- To develop an educational package so that it would include a broader perspective of current youth developmental efforts.
- To develop a positive relationship with national and multi-national organizations.
- Educational focus of the institute is to provide its students hands on exploration and personal grooming.
- IBA-ELPRC helps to provide access to the industrial technology, opportunities to compete in business plan competitions.
- IBA-ELPRC also provides facilities that are perfect for action-oriented focus.



Institute of Business Administration, External Linkages and Placement Resource Centre

- In today's modern and fast world, IBA-ELPRC have become a medium of communication among the student body and national/multi-national organizations, also focuses on building communities of students.
- IBA-ELPRC have themes of providing jobs, student to company interaction and creation of shared and collaborative content, also acts as a good way to make connections between students and industries with similar interests and goals.
- Facilitates open communication, leading to enhanced job information discovery and delivery, build new connection, awareness and company response, and provides an opportunity to widen business contacts.
- IBA-ELPRC facilitates students to get suitable jobs and internships.
- On Campus Recruitment Drives and Awareness sessions by IBA-ELPRC, facilitates students to get suitable jobs and industry knowledge.

On Campus Recruitment Sessions

Online Career Counselling Session arranged by PTCL Industry Professionals, 2020. "Career Counseling Sessions" (Climbing the Corporate Ladder) is a series of career building sessions conducted by PTCL on October 15, 2020. In this session, the PTCL industry professional delivered a 45 minutes to 1 hour talk to the graduating students of Institute of Business Administration (IBA) University of the Punjab (Online) to help them prepare for the industry challenges and assist them in building their career with utmost professionalism.

Institute of Business Administration (IBA) Job Fair, 2020. IBA is aiming to provide with an opportunity to market the organizations and find the best employment match in terms of all job types from a pool of potential competitive candidates. IBA has organized Job fair 2020 on February 27, 2020 at IBA green. 53 organizations from all over the country participated in this event provided an opportunity to create a corporate network and to conduct on-spot interviews, collect resumes and share information regarding recruitment policies and company profiles.

Recruitment Drive by Style Textile at IBA, 2020. A recruitment drive was arranged by Style Textile for MTO Program for Business Graduates at IBA-PU in computer lab on November 17, 2020. Test conducted online with proper SOP's.

On Campus Information Session by Raja Mohsin Abbas (CEO- ReachFirst) 2020. An informative Session of Business in the Digital Age held on Tuesday January 14, 2020. Purpose of organizing sessions like this is to deliver information and giving students a platform to polish their talents at the university level is of the utmost important at Institute of Business Administration.

On campus Panel Discussion "Role of Universities in Peace Building" 2020. On campus panel discussion "Role of Universities in Peace Building" held at Institute of Business Administration on Tuesday January 21, 2020. Institute of Business Administration, University of the Punjab have a vital role to inculcate the values of responsible citizenship, peace,



tolerance, harmony and co-existence among the youth. Peace and conflict resolution are vital preconditions for sustainable economic growth, democracy and development, for this purpose this panel discussion was arranged at IBA.

Institute of Business Administration (IBA) staff training by Rozee.pk, 2020. A training session held on September 2, 2020 at IBA by Rozee.pk regarding upcoming challenges and more availability of jobs for students by using Rozee.pk portal. This platform help students to explore their innate talents and improving basic skills. Rozee.pk platform is a stimulating, technical powered learning environment for students and help to adapt quickly to the ever challenging education environment in Pakistan but also enables them to leverage their unique, hidden abilities to achieve their true potential.

Iqbal Day at Institute of Business Administration, 2019. Youm-e-Khudi 2019 at Institute of Business Administration (IBA) University of the Punjab IBA organized a competition to commemorate our National Poet Dr. Allama Muhammad Iqbal on November 11, 2019 (Monday). The basic purpose of the event was to present a tribute to our national poet, Allama Muhammad Iqbal and explain his concept of Khudi. This event was organized to motivate and guide our youth to follow Iqbal's philosophy of Khudi.

Welcome party arranged for BBA programs at Institute of Business Administration, 2019
IBA arranged a welcome party for BBA programs academic sessions 2018-22 & 2019-23 and also for MBA 3.5 Years academic session 2018-22 on Thursday, December 5, 2019. All faculty members and students participated in the event.

Welcome party arranged for M.Phil & MBA programs at Institute of Business Administration, 2019
A welcome party arranged for M.Phil in Business Administration and MBA 1.5 Years academic sessions 2018-20 & 2019-21 as well a farewell party for BBA academic session 2015-19 on Tuesday, December 10, 2019 at Institute of Business Administration.

- **Student Counseling and Career Guidance**

The Student Advisor is all the time available for student counseling at IBA.

INSTITUTE OF BUSINESS & INFORMATION TECHNOLOGY

- **University-Industry Linkage**

The Institute is actively working on developing and strengthening the relationship between academia and industry since its inauguration. We have established an Industrial Linkages Cell at IBIT.

- **New Initiatives**

Webinars have been conducted to motivate students. The details are given below.

- “Iqbal aur Ishq e Rasool (SAWW)” Chief Guest: Muneed Iqbal (Grandson of Allama Iqbal)
- A talk by Prof. Faisal Kamal, a renowned academic, scholar and poet
- “Waba ka Daur aur Sakoon e Qalb”, Chief Guest: Dr. Waheed uz Zaman Tariq (Renowned Iqbal Scholar and Virologist)



- “Faqt Zauq e Parwaz hai Zindagi”, Chief Guest: Shahzad Nawaz (Senior Anchorperson, Director, Visualizer)
- “Iqbal aur Do Qaumi Nazriya”, (Chief Guest: Muneed Iqbal (Grandson of Allama Iqbal)
- **Internship and Placement Office**
In the late summer, 147 students of BBIT (Hons.) have done internships in diversified industries and organizations throughout Pakistan
- **Student Counseling & Career Guidance**
IBIT has provided continuous career counseling for our graduating students and guided them in developing resumes, interview preparations and assisted them in applying abroad for further studies.

Faculty of Education

DEPARTMENT OF SPECIAL EDUCATION

- **University Industry Linkage:**
LABARD, DGSE, Govt. of the Punjab, Lahore.
- **Student Counseling and Career Guidance**
All faculty member are providing counseling and guidance services to the students.

Faculty of Engineering & Technology

INSTITUTE OF ENERGY AND ENVIRONMENTAL ENGINEERING

- **University-Industry Linkage/Collaboration:**
Providing testing facilities to different industries in Pakistan. Testing facilities availed by the industries include the followings;
 - Automatic Abel Flash Point Analyzer
 - Automatic Cleveland Flash Point Analyser
 - Automatic Tag Flash Point Analyser
 - Electric Tag Open Cup Flash Point
 - Automatic PMCC Flash Point Analyser Method A / B / C – Stand Alone
 - Electric Abel Flash Point
 - Semi-automatic Cleveland Flash Point ASTM D92
 - Smoke Point ASTM D1322
 - 6 Places Digital Viscometer Bath For Use @ 40°C 50° 100°C 135°C - Maximal Temperature 200°C ASTM D445 / Ip 71
 - Viscometer Tube Cleaner and Dryer
 - Digital Saybolt ASTM D88 & Redwood No.2 Viscometer Ip 70(Obs) – 2 Places
 - Cloud and Pour Point Refrigerator – Dry Bath 4 Temperatures 4 Places - Floor Model



- Dropping Point Apparatus ASTM D2265
 - Semiautomatic Precision Penetrometer
 - Oxidation Stability of Gasoline and Aviation Fuel 4 Position ASTM D525, D873 and D942
 - Oxidation Stability Liquid Bath 8 Places
 - Copper Corrosion Bath ASTM D 130
 - Heated Centrifuge
 - Dew Point ASTM D1142
 - Mass Flow Meter With Alarm Function
 - Manometer Digital
 - Digital Calibration Thermometer
 - Viscometer Tubes
 - Calibrated U-Tube Reverse Flow Viscometers
 - Calibrated Cannon-Fenske Routine Viscometers
 - Calibrated Cannon-Fenske Opaque Viscometers
 - Calibrated Zeitfuchs Cross-Arm Viscometers
 - Calibrated Ubbelohde Viscometers
 - Viscosity Standards
 - H₂S Analyser
 - Total Organic Carbon (TOC) Analyzer
 - Dual Beam 8 Auto Cell Scanning Spectrophotometer With Computer and Backup Ups
 - Electronic Balance
 - Hot Stirrer
 - Portable Density Measurement Kit
 - Kinematic Viscometer
 - Ambient Air Analyzer
 - Pedestal Drill Machine
 - Hacksaw Cutting Machine
 - Shaper Machine
 - Manual Lathe Machine
- **New Initiatives**
- Approval of five degree programs from academic council namely;
- B.Sc. (Engg.) Energy Engineering
 - B.Sc. (Engg.) Environmental Engineering
 - M.Sc. (Engg.) Sustainable Engineering
 - M.Sc. (Engg.) Risk and Reliability Engineering
 - PhD Energy Engineering
- In addition, several other short courses have also been approved which are as follows.
- Safety Systems – Tools and Methods
 - Fundamentals of Industrial Safety Engineering



- Health, Safety Environmental & Workplace Safety
 - Fundamentals of Reliability Engineering
 - The Safety Life Cycle, Risk Reduction & Safety Management
 - Research Methods
 - Energy Auditing and Life Cycle Analysis
 - Fundamentals of Fuels and Combustion
 - Fundamentals of Combustion Engineering
 - Basics of Coal Combustion
 - Clean Coal Technologies
 - Fundamentals of Energy Engineering
 - Basics of Fuel Testing
 - Coal Storage and Beneficiation
 - Coal/Biomass Conversion Technologies
 - Basic Computer Skills
 - Entrepreneurship
 - Project Management
 - Computer Aided Engineering Drawing
 - Data Analysis
 - Coal Storage
 - Life Cycle Analysis
- **Student Counseling and Career Guidance:** Yes

DEPARTMENT OF POLYMER ENGINEERING & TECHNOLOGY

- **University-Industry Linkage**

National competitiveness refers to the ability to produce and deliver products and services effectively and profitably relative to competing countries. Improving national competitiveness is critical to ensure that we utilize our resources in a productive manner – based on merit, quality and innovation instead of unproductive rent seeking. The successful completion of the current projects on which Department of Polymer Engineering and Technology is working, envisages investment in the determinants of national competitiveness, especially Polymer synthesis, Polymer end product formation, New fibers and improved fibers for textiles by engagement in international markets. Thus, foundations of a knowledge economy will be laid, and Industry-Academia linkage will strengthen. It also increase and encourage Innovation; technology adoption and value addition. The main industrial sectors where department is helping and will help are:

 - Polymer manufacturing and Processing industries
 - Sports industries
 - Paper and pulp industries
 - Paint and adhesive industries
 - Distilleries/ sugar industries process industries



- Membrane separation plants
 - Rubber manufacturing industries
 - Defense organizations
 - Universities and educational institutes
 - Research and development organizations
 - Petrochemical industries
 - Coating industries
 - Polymer processing units
 - Composite producing units
 - Foam industry
 - Blending industries
 - Recycling sector
 - In this scenario, Department of Polymer Engineering and Technology has served the industry since day one. Department is also providing testing facilities to the industry for characterization of their samples.
 - List of industries with which department actively worked and is working are:
 - Anwar Khawaja Industries
 - Marjan Polymer Industries
 - Two MoU were signed with industries are also alive and we are helping the industries on various grounds.
- **New Initiatives**
- Keeping in view of the new research and material development by new techniques, several new research projects have been initiated in the department of Polymer Engineering and Technology during the year 2019-20. Continuation of previous research projects with the value addition in them is progressed way of enhancing research activities which lead to the new product development. The current areas in which department worked previously and will work accordingly with advancements include:
- Simulation and modeling in polymers
 - Polymer process optimization
 - Polymer plant designs
 - Polymer material development
 - Advanced composite materials
 - Biomaterials
 - Implants
 - Eye lenses
 - Scaffolds
 - Hydrogels
 - Polyurethanes
 - Separation processes
 - Water treatment



- Bio medical applications
 - Paints and coating
 - Anti-corrosion paint
 - Adhesives
 - Baking paints
 - Waterproof coatings
 - Composite and Blends
 - Fiber reinforced polymer composites for high grade applications
 - Polymer-Polymer composites using engineering polymers
- **Internship and Placement Office**
The department has no permanent internship and placement office. However, department tried to consult a number of industries to place the students in different industries.
- **Student Counseling & Career Guidance(maximum 1–2 pages)**
During the courses and lectures, special consideration was given on students counseling, building up of their communication skills and giving information to the students about their carrier growth and potentials. Department always made special focus in collaborating with the industries and keep on guiding the students about different organizations in which they can apply for jobs. Moreover, faculty also gave strong emphasis on the students to apply for scholarships in foreign universities for Ph.D. Due to COVID pandemic, physical interaction with the students was limited. However, faculty remained engaged with students by social media platforms by guiding to apply for scholarships, internship, research projects to various foreign funding organizations and universities to get jobs and scholarships for advanced studies. As a result of this, a number of students are currently enrolled in universities of Germany, Korea, UK, Ireland, China and Australia and more students are working on these grounds.

DEPARTMENT OF METAULLURGY & MATERIALS ENGINEERING

- **University-Industry Linkage**
Students of the Department have visited different industries and students of 6th semester have done industrial training in the following industries:

Sr.	Industry Name	Address
1	Ittefaq Sons (Pvt) Ltd.	Lahore
2	Supra Steels	Climax Abad G.T.Road, Gujranwala
3	PCSIR	Ferozepur Raodl, Lahore
4	New Shalimar Steel Mills	Sheikhupura Road, Lahore
5	HMC	Taxila, 47050
6	Fiber Tech Composites	Canal Bank, Hanif Park, Harbanspura, Lahore-54850
7	Sui Northern Gas Pipelines Ltd	Gas House 21 Kashmir Road, P.O.Box 56, Lahore



8	Pakistan Standards and Quality Control Authority	125-A Industrial Area Kot Lakhpat Lahore-54770
9	Pakistan Cycle Industrial Co-Operative Society Ltd.(Rustam Sohrab Cycle Factory)	P.O.Rustam Cycle Factory Sheikhpura Road, Shahdara
10	PIA Engineering	Near PIA Training Center Airport Karachi 75200
11	Chenab Engineering Works & Foundries Private Ltd.	Jumra Road, Nishatabad, Faisalabad
12	Bolan Castings Ltd.	Hub District Lasbela Balochistan, Adjacent to Bela Engineers Ltd, Village Baroot sub-Tehsil, Hub District
13	New Shalimar Steel Industries Private Ltd.	45-Peco Road, Badami Bagh, Lahore
14	Batala Steels	17 Km, Sheikhpura Road, Lahore
15	Qaderi Brothers Pvt.Ltd.	O/S Kashmiri Gate Peco Road, Badami Bagh Lahore
16	DSW, Pakistan Railways	Mughal Pura Lahore
17	Pakistan Steel Mills Corporation	Bin Qasim Karachi 75000, P.O.Box 5429
18	KSB, Pumps	Hassan Abdal, Garden Trust Building 16/2, Sir Agha Khan Road, Lahore
19	POF,	Institute of Technology Administration Department Wah Cantt
20	BBJ, Pipe Industries Pvt.Ltd.	49 Km, Multan Road, Near Ittefaq Adda, Bhaipheru, BBJ, House 40, Abbot Road, Lahore
21	Excel Foundary	Sheikhpura Road, Lahore
22	Descon Engineering Ltd	18 Km Ferozepur Road, Lahore
23	New Shalimar Steel Industry Pvt.Ltd.	Lakho Dair Road, Shadi Pura, band Road, Lahore
24	NESCOM	Islamabad
25	Mughal Steels	Sheikhpura Road, Lahore
26	Millat Equipment Ltd	10 Km Raiwind Road, Lahore
27	AFCO Steels	22 Km, Sheikhpura Road, Lahore
28	Fast Cables & Co.	14-G, Gulberg III, Lahore, 7-Canal Bank Main Jallo Road, Lahore
29	EMCO Industry Ltd.	2nd Floor, Emirates Bank Building Kashmir/Egerton Road, Lahore
30	Treet Corporation Ltd.	72-B, Kot Lakhpat Industrial Area, Lahore 54770
31	Pakistan Mineral Development Corporation (Pvt) Ltd.	Head Office 13-H-9, Islamabad, 44790
32	Wahid Industries (Universal Pistons)	Fayyazi Street, Dull Khurd, Ferozepur Road, Lahore
33	Emco Industries Limited	19-Km, Sheikhpura Road, Lahore
34	Master Tiles and Ceramics Industries & Master Sanitary Fittings Industries	G.T. Road, Gujranwala



35	Syed Bhais (Pvt.) Limited	200 Ferizepur Road, Lahore 54600
36	Siemens Pakistan Engg. Co. Ltd.	Shared Services Department Carrier Telephone Industries Pvt. Ltd.
37	Sonex Sanitary Fittings	Gujranwala
38	Rastgar Engineering Company	1-9/3, Islamabad
39	Qaderi Foundaries	Badami Bagh, Lahore

○ **New Initiatives**

Industrial Advisory Board was re-constituted to strengthen linkage with industry.

○ **Internship and Placement Office**

Students of 5th semester completed 6 weeks training in different industries during summer vacations.

○ **Student Counseling & Career Guidance**

The institute's placement bureau works with the collaboration of senior faculty members. Jobs openings are indicated at department's notice board and students are informed about the interviews and tests whenever desired by the industry.

DEPARTMENT OF POLYMER ENGINEERING & TECHNOLOGY

○ **University industry linkage**

National competitiveness refers to the ability to produce and deliver products and services effectively and profitably relative to competing countries. Improving national competitiveness is critical to ensure that we utilize our resources in a productive manner – based on merit, quality and innovation instead of unproductive rent seeking. The successful completion of the current projection on which the Department of Polymer Engineering and Technology is working; envisages investment in the determinants of national competitiveness, especially polymer synthesis, polymer end product formation, bio polymers and new fibers and improved fibers for textiles by engagement in international markets. Thus foundations of a knowledge economy thus will be laid and Industry-Academia linkage will strengthen. It also increases Innovation, technology adoption and value addition. The main industrial sectors where polymer engineering department is helping and will help are:

- Polymer manufacturing and Processing industries
- Sports industries
- Paper and pulp industries
- Paint and adhesive industries
- Distilleries/ sugar industries process industries
- Membrane separation plants
- Rubber manufacturing industries
- Defense organizations
- Universities and educational institutes
- Research and development organizations



- Petrochemical industries
- Coating industries
- Polymer processing units
- Composite producing units
- Foam industry
- Blending industries
- Recycling sector

In this scenario Department of Polymer Engineering and Technology has served the industry since day 1 and this linkage has been enhanced exponentially in the year 2018-19. MoU has been signed with the industry for carrying out joint research projects. Moreover, department has also provided testing facilities to the industry for characterization of their samples.

List of industries with which department is actively worked and is working are:

- Anwar Khawaja Industries
- Marjan Polymer Industries

Two MoU has been signed with industries for joint funded research projects with

- Reliance polymer industries, Lahore
- Shafi Reso Chem Industries, Lahore

○ **New initiatives**

Keeping in view of the new research and material development by new techniques, a number of new research projects have been initiated in the department of Polymer Engineering and Technology during the year 2018-19. Continuation of previous research projects with the value addition in them is progressed way of enhancing research activities which lead to the new product development. The current areas in which department worked previously and will work accordingly with advancements include

- Simulation and modeling for
- Polymer process optimization
- Polymer plant designs
- Polymer material development
- Advanced composite materials
- Biomaterials
- Orthopedics implants
- Eye lenses
- Scaffolds
- Hydrogels
- Polyurethanes
- Separation processes
- Water treatment
- Bio medical applications



- Paints and coating
 - Anti-corrosion paint
 - Adhesives
 - Baking paints
 - Water proof coatings
 - Composite and Blends
 - Fiber reinforced polymer composites for high grade applications
 - Polymer polymer composites using engineering polymers
- **Internship and Placement Office**
The department has no permanent internship and placement office however department tried to consult a number of industries to place the students in different industries.
 - **Student Counseling & Career Guidance**
During the courses and lectures special consideration is given on students counseling, building up of their communication skills and also giving information to the students about their carrier growth and potentials. Department has made special focus in collaborating with the industries and also keep on guiding the students about different organizations in which they can apply for jobs. Moreover, faculty also gave strong emphasis on the students to apply for scholarships in foreign universities for Ph.D. In this perspective department arranged special lectures to the students for their guidance how to apply for scholarship in HEC and in other universities. As a result of this a number of students are currently enrolled in universities of Germany, Korea, UK, Ireland, China and Australia.

INSTITUTE OF CHEMICAL ENGINEERING & TECHNOLOGY

- **University-Industry Linkage / Collaboration**
MOUs has been signed with different universities with in the country and abroad to exchange study program and also with different local research organizations e.g. PCSIR Labs, PSQCA, LCCI etc. to exchange expertise.
- **New initiatives**
 - Continual Professional Development Cell (CPDC)
 - Collaboration with SNGPL for research projects
 - Launching of short courses
 - Organization of Co-curricular activities like celebration of Serat-ul-Nabi, Quaid and Iqbal days, Independence day, resolution day, Kashmir day.
- **Technology Incubation Centre**
Faculty members are encouraged to carry out researches of commercial importance.
- **Internship and Placement Office**
At the Institute the internship is the part of curriculum and mandatory requirement to get engineering degree. Every year Institute arranges Internship programs for students in Fifth semester with the facilitation of Industry and R & D organizations.



- **Student counseling and Career guidance**
 - CPDC and student advisor has mandate for student counseling and career guidance. CPDC works in close contact with industry for the recruitment and placement of the young engineers in local enterprises.
 - A separate Career Counseling & Alumni office has been established. During 2018, sixteen (16) companies visited Institute for recruiting our graduates and Institute fully supported these recruitment drives.

DEPARTMENT OF ELECTRICAL ENGINEERING

- **University-Industry Linkage**
University encourages and supports industrial connection. ORIC has been established at university level to have effective industrial connections. At individual Industrial Liaison office has also been created. ILO is facilitating the EE faculty and students for effective industrial linkages. Liaison Head ensures the following:
 - a. Regular Industrial visits of Faculty and Students.
 - b. Regular invited Lectures by the leading industrialists.
 - c. Regular visits of department by industrialists
 - d. Solution providing to the industry through consultancy and research projects
- **Internship and Placement Office**
Internships are part of the electrical engineering curriculum and are mandatory for all the students. Internships provide opportunities to learn in industrial environments and expose students to the pressure of professional life. This inculcates time management and critical thinking in students.
An internship of 4-8 Weeks duration on pass/fail basis, in relevant industries, is compulsory for all students of electrical engineering programme. The department ensures at least one internship for every student during four years stay. The internships offered during summer to student from various industries are listed NTDC, PEL, Warid, Honda Atlas, Mobilink, PTCL, SNGPL, EMTEL, LESCO, WAPDA, Orient, Zong, Huawei, ZTE, ICC Pvt. Ltd, Telenor, PU Radar Remote Sensing Lab, Ufone.
- **Student Counseling & Career Guidance**
A dedicated Career Counselling & Advisory Centre is present in campus for professional counselling of students in career and student affairs. The centre provides free of charge services. Students can also take advice from the coordinators assigned by the department of electrical engineering. Career Counselling & Advisory Centre provides programmes and services to help students and alumni explore and make effective career choices, foster professional networks with employers and assist employers in meeting their recruitment needs. The office offers various avenues to the students for personal and professional development and supports them in achieving their goals. CDC provides assistance in following areas
 - a. Career Advisory
 - b. Resume and Cover Letter Assistance
 - c. Interview Skills



- d. Career Library
- e. Employers
- f. Talent Expos
- g. Career Development Workshops

INSTITUTE OF QUALITY & TECHNOLOGY MANAGEMENT

- **University-Industry Linkage / Collaboration**
 - Students of the Institute regularly visit Industries in their Industrial tours.
 - Industrial training of 6-8 weeks is a part of curriculum at Institute of Quality & Technology Management.
- **New Initiatives**
Laboratories have been updated according to Pakistan Engineering Council requirements.
- **Internship and Placement Office**
Internship is arranged regularly for BS industrial Engineering & Management and MSc Quality & Performance Management programs. Several companies visit from time to time to take job tests for hiring students Job tests are also conducted by several reputed organizations to hire graduates of the institute.
- **Student counseling and Career Guidance**
Cell is present in the Institute and a teacher is incharge of this cell. Students contact the office for counseling and guidance.

Faculty of Law

PUNJAB UNIVERSITY LAW COLLEGE

- **Internship and Placement Office**
Associated with the senior advocates having. At least 10 years actual standing in the field of Law.
- **Student Counseling and Career Guidance:**
 - For most of the time of Faculty of Law provides counseling and career guidance to Law students. In this connection, Law Moots are arranged by the Law Moot Society under the supervision of teacher's incharge. These exercises' enhance the capacity building of the students for future challenges and opportunities. Moreover, the subject of trial advocacy and office managements and being taught to LL.B students to make them able, how to manage office.
 - The visiting teachers are also engaged by the Law College to get maximum benefits from their legal experiences. The adjunct faculty offers the interested students to work with them as an associate by keeping in view the area of interest of students. The College also make necessary arrangements in the interest of students for frequent visit of District Courts and superior Courts in Pakistan. These arrangements act as catalyst for giving them a practical view over the working and procedure of these Courts.



Faculty of Life Sciences

CENTRE FOR CLINICAL PSYCHOLOGY

○ **Patents:** 2 are in Process

MOUs Signed

Centre for Clinical Psychology established MoU with Pakistan Institute of Living and Learning to promote research and competencies of the faculty at the Centre. Further, MoU with Punjab Institute of Mental Health has also been finalized to enhance clinical outreach and training capacity.

Apart from this, collaborations with Department of Microbiology and Molecular Genetics, University of the Punjab, Lahore, Pakistan was done to conduct NRPU (2020) and with IER, University of the Punjab, Lahore, Pakistan to conduct GCF (2020). However, these projects were not approved by HEC.

- MOU with University of the Punjab, Lahore.
- MOU with UNICEF
- MOU with PAHCHAAN

International Collaborations: UNICEF

In the wake of COVID-19 cases around the globe as well as in Pakistan, desperate need was felt to not only help people physically but psychologically as well. It has been reported that from March, 2020 uptil now there not has been an increase in the number of major psychological disorders as well as the intensity of these disorders have also increased. In order to play its own part for the welfare of the community, Centre for Clinical Psychology, University of the Punjab was approached by Ms. Zahida Manzoor (Child Protection Officer, UNICEF, Lahore) in July, 2020. First online meeting between UNICEF representatives and CCP Director was held on 28th July, 2020 and a consensus was developed that a concept note would be signed between the two concerned parties for the welfare of the community and UNICEF would provide the financial assistance while CCP would be responsible for providing professional help mentioned below.

- CCP with a dedicated team of 6 consultant clinical psychologists would be responsible for providing free Mental Health and Psychosocial Support Services (MHPSS) in Punjab for children and women (online & in person) affected by the ongoing pandemic.
- A separate referral mechanisms should be made for those who need MHPSS through UNICEF.
- Developing liaison with other professionals such as psychiatrists, speech and language pathologist, occupational therapist for providing timely and free services where needed.
- Strengthen the already existing assessment procedures through the procurement of new assessment tools.



- Providing low cost trainings on MHPSS to frontline workers/social workers/ professionals/students on mental health and psychosocial support based on needs when required.
- Reporting to UNICEF on the provision of MHPSS services on weekly basis.

After providing all the relevant details and information by Centre the collaboration between UNICEF and CCP was officially signed on 20th October, 2020 (see Annex A). CCP has been actively providing psychological help (online & in person) to help not only children but women and families.

For the first quarter, CCP with UNICEF's collaboration has provided Free MHPSS to almost 50 clients which included children, women, and men of varied ages. With UNICEF's continued support, CCP, PU would not only enhance the quality of services provided but would also be able to provide Free services to deserving clients with meager resources that could benefit from it.

National Collaboration; HEC Secretariat

Central Secretariat of HEC COVID 19 Committee for Psychosocial Wellbeing

As in all epidemics and pandemics, the psychosocial fallouts of Covid-19 are more widespread and will last longer than the medical impact. This means that the mental health and psychosocial wellbeing of the academic community, and the population at large, is at risk. Therefore, the provision of psychosocial support to the academic community and the country are urgent and necessary, and as well a challenge and an opportunity.

To help and facilitate universities to meet that challenge and maximize the opportunity, the *HEC Covid-19 Committee for Psychosocial Wellbeing* was established by the Chairman HEC.

The objectives of committee are as follows:

1. To enable universities to provide support for Covid-19-triggered mental health and psychosocial problems to the academic community.
2. To broaden the support service to include other mental health and psychosocial problems.
3. To widen the reach of the support service to cover the all higher education communities.
4. To scale up and further widen the reach of the support service to cover the population at large.
5. To improving learning-teaching.
6. To strengthen universities' capacities

For this purpose, Centre for Clinical Psychology has volunteered to serve as the Central Secretariat for all the universities of Pakistan and regional secretariat for the Province of Punjab. Centre for Clinical Psychology has dedicated staff and faculty members which are working to facilitate the universities in establishing Psychosocial Wellness Centres in line with the HEC guidelines for providing psychosocial support.



○ **Internship and Placement Office**

- Services Hospital, Lahore.
- Mayo Hospital, Lahore.
- Sir Ganga Ram Hospital, Lahore.
- Jinnah Hospital, Lahore.
- Punjab Institute of Mental Health, Lahore.
- Amin Maktab, Lahore.
- Shadab Training Institute, Lahore.
- Child Protection Bureau, Lahore.
- Social Welfare Department, Govt. of Punjab, Lahore.
 - Dar-ul-Sakoon
 - Dar-ul-Falah
 - Chaman Institute for Special Children.
- Lahore General Hospital
- Turning Point, Lahore.
- Fountain House, Lahore.
- Fatima Memorial Hospital, Lahore.
- Living Institute for Slow Learners, CCP, PU, Lahore
- National Special Education Centre, Government of the Punjab, Lahore.

○ **Student Counseling and Career Guidance**

Counseling and Therapeutic Services

Centre is providing counseling services as well as therapeutic for the management of Anxiety, Depression, Anger, Self Esteem, Acute and Chronic Stress, Drug, marital Problems and Adjustment Problems.

CCP being the Centre for Excellence with regard to its training and providing services to the community at subsidized rates did not ignore the outbreak of psychological distress in the masses due to pandemic. For this purpose, CCP launched online therapeutic services; free of cost to all the clients who approached for psychological help.

During the start of 2020, clinical and speech consultations were done as usual following all the protocols ensuring quality and timeliness. However, after the lockdown, in March 2020 consultation could not be done the way it was before. After conducting an online meeting with client consultation committee at Centre, it was amicably decided that being a service provider institute, CCP would continue its efforts in helping the maximum number of people online through Google Meet, Zoom MS teams etc.

With the ongoing crisis, it was decided that the online services will be provided free of cost and strategy was develop to spread the word. In order to do so clients a pamphlet was designed with all the relevant information written. Later on, the pamphlet was expedited through WhatsApp and Facebook in major groups which included psychiatrists, fellow clinical psychologists and academicians.



A proper referral mechanism was developed in which the client was supposed to call on the given numbers, giving the specification of the problems they were experiencing. Later on, within a day the clients were referred to trainee clinical psychologists at Centre. The sessions were continuously monitored by the respective supervisors. The trainee, supervisors, along with one person was administration were responsible for keeping the record of their client's status.

Psychological Assessment Services

Centre for Clinical Psychology also provides it psychological assessment services at subsidized rates which include IQ assessment, Personality Assessment, Adaptive Functioning, Neuropsychological assessment, speech related issues assessment etc. CCP takes pride in saying that the assessment services provided are low cost and done by highly qualified professionals with relevant knowledge in the field.

Psychological assessment requires the physical presence of the client because the assessment tools cannot be administered online, thus, psychological assessment services were halted due to Vovid-19 and lockdown situation all over the country. However, as soon as the lockdown was lifted, CCP again started provided its assessment services following all the SOPs and protocols.

Living Institute for Slow Learners (LISL)

Living Institute for Slow Learners (LISL) is an institute which render its services in multiple domains of special needs. Its objectives are;

- To provide an encouraging learning environment for students with special educational needs so as to facilitate their education, utilize their potential in the right direction, enhance their independence and enable them to become well-adjusted individuals in the society.
- To provide students with special needs a series of support services based on five principles, early identification, early intervention, whole-school approach, home- school cooperation and cross-sector collaboration.
- To use new therapies to enhance skills of students with special needs.
- To use modern therapeutic material and strategic based teaching to polish their skills and behaviours.

In short, to establish an Institute in the premises of the University of the Punjab which will not only help the parents of these special children to manage their special child's behaviours and to utilize his/her potential in a constructive way, but will also serve as a laboratory for students of the Centre for Clinical Psychology in the area of Slow Learners.



CENTRE OF EXCELLENCE IN MOLECULAR BIOLOGY

○ **University-Industry Linkage**

The Centre has collaboration with seed companies for field trials of transgenic plants and collaboration with different hospitals for medical and health related projects.

- M/s Ali Akbar Group, Bhothian Chowk Defence Road, Off Raiwind Road, Lahore.
- M/s Aziz Group of Companies, 77 Industrial Estate-60000, Multan.
- M/s FMC United (Pvt) Ltd, 61-A, Main Gulberg, Lahore.
- M/s Four Brothers Group, 77-D/1, First Floor, Lahore Centre, Main Boulevard, Gulberg, Lahore.
- M/s AgriFarm Services, 53-C Fazal Elahi Road Near Chungi No.1, Multan.
- M/s Pioneer Seed Pakistan, 2, G-4 Canal Bank Johar Town, Lahore.
- M/s Auriga Seed Corporation, 33-Km Multan Road, Lahore
- M/s Bahar Seed Corporation, Sadiqabad
- M/s ICI Pakistan Limited, ICI House 63 Mozang Road, Lahore
- M/s Jullundur Seeds, Pvt Limited, 56-L, Model Town (Extension), Lahore
- M/s Neelum Seed Corporation, 43 Km, Chak No. 166 WB, Metla, Multan.
- M/s Sanifa Agri Services Limited, Lahore
- M/s Suncrop Group, 8-B, Industrial Estates, Multan.
- Tara Crop Sciences, PCT Limited, # 01, GII, Canal Bank Road, Johar Town, Lahore
- M/s Weal-AG Corporation, 47-A, Industrial Estates, Multan

○ **New Initiatives**

- We are in a process of making contracts with seed companies to collaborate with CEMB for transformation of genes in their elite varieties/hybrids.

One agreement has been signed with Sudanese seed companies for the seed multiplication, approval of CEMB-Klean Cotton hybrids in Sub-Saharan African Countries on December 31st, 2019.

○ **Patents**

Four patents are submitted.

○ **Internship and Placement Office**

CEMB also provide short internships in different disciplines to provide the young researchers hands on experience in basic and advance molecular biology techniques. Students from different universities every year join CEMB for internship. During 2019-2020 twenty-eight from the following institutes completed their internship program at CEMB.

- Lahore College for Women University
- Kinnaird College
- University of Veterinary and Animal Sciences
- University of Health Sciences
- The University of Lahore
- Agriculture University Faisalabad



- Bahawalpur Islamia University
- Hazara University
- GC University Faisalabad
- COMSAT Sahiwal Campus
- Institute of Biochemistry & Biotechnology IBB, UVAS, Lahore.
- Govt College Home Economics, Lahore.
- FC College University, Lahore.
- College of Earth and Environmental Science (CEES) University of Punjab
- Bahuddin Zakria University, Multan

DEPARTMENT OF BOTANY

- **Student Counseling and Career Guidance:**
Student Advisor provides counseling and career guidance to the students

DEPARTMENT OF MICROBIOLOGY & MOLECULAR GENETICS

- **University-Industry Linkage/Collaboration**
Following industry was visited by the students of BS and MSc in the time period
Shakar Ganj Sugar Industry, Jhang

DEPARTMENT OF ZOOLOGY

- **University-Industry Linkage**
Prof. Dr. Javed Iqbal Qazi & Prof. Dr. Nadeem Sheikh
Memorandum of understanding with Department of Internal Medicine, Division of Gastroenterology, Georg August University Goettingen Germany.
Prof. Dr. Najma Shaheen
 - AB Mauri Pakistan (PVT) Limited December 29-, 2015 to present

INSTITUTE OF AGRICULTURAL SCIENCES

- **University-Industry Linkage/Collaboration**
We have already organized different University Industry Linkage Programme with the collaboration of:
 - Amanah Halal Research Centre (Amanah HRC)
 - Pepsi-Cola International (Pvt.) Limited
 - The Ohio State University (material transfer agreement)
 - Evoyl Group of Seed, Fertilizer and Pesticides (EGSFP)
 - Her Majesty the Queen in Right of Canada (material transfer agreement)
- **New Initiatives**
 - Transgene technology for the purpose of producing virus resistant cotton plants, Kitchen Gardening, Tunnel Farming, Germplasm trials and seed production strategies, Conservation Agriculture, To promote Food Science & Technology (Introduction & preparation of several new products in the lab, such as jam, juices, dried vegetable powders).



- Mushroom cultivation has been started in the Institute of Agricultural Sciences and in near future spawn production will also be initiated.
- Rice germplasm conservation and enhancement: Rice germplasm conservation and enhancement is very important and basic tool for the development of new rice varieties through different breeding approaches. We have collected more than 300 rice germplasm lines (exotic + local) from different sources to increase the production and adaptability of some exotic rice varieties:

Objectives:

- To launch a new breeding program
 - To increase yield
 - To improve quality
 - Breeding for resistant varieties against biotic and abiotic stresses.
 - Promotion of Entrepreneurship trend and related training opportunities.
- **Technology Incubation Center**
Production of different food products in Food Sciences centre and isolation/identification of new pathogens for the improvements of crop plants in different laboratories of the institute by using our own resources.
 - **Technology Incubation Center**
Production of different food products in Food Sciences centre and isolation/identification of new pathogens for the improvements of crop plants in different laboratories of the institute by using our own resources.
 - **Patents**
 - Ahmad, N., Rashid, N., Haider, M. S. and Akhtar, M. (2016). Single Step Liquefaction and Saccharification of Corn Starch Using an Acidophilic, Calcium Independent and Hyperthermophilic Pullulanase.US PATENT Number US 9,340,778 B2
 - **Haider, MS** (2013). Novel approach to generate wide spectrum resistance to cotton begomoviruses infecting cotton and other cultivated crops. Patent with Higher Education Commission, Islamabad, Pakistan. Submitted to Intellectual Property Organization of Pakistan (IPO), Government of Pakistan, vide receipt No.084208/LHR/18
 - **Internship and Placement Office**
Regular internship programme is being conducted and Institute has established a Placement Bureau office to deal with the business related to the availability of jobs for the graduates of IAGS.
 - **Student counseling and Career Guidance**
 - Placement Beauru has been established for the counseling and career guidance for the students of IAGS. Nominated members of the Placement Beauru have been assigned the duties to have interaction and correspondence with different organizations Government/Private to gather the information related to different jobs oppertunities e.g., M/s Ali Akbar Group, Auriga Chemicals, PPSC, FPSC, PAEC, PARC and Four Brothers etc.



- Graduates of the IAGS are guided to apply for available posts/vacancies under the umbrella of Placement Beauru. Recently the graduates are being interviewed against the vacant posts in M/s Four Brothers. Hopefully some of the students would have an opportunity to join and serve the group and earn fame for Punjab University in general and institute in particular.
- Hopefully this counseling and guidance will go a long way for the bright future of the students of IAGS.

INSTITUTE OF APPLIED PSYCHOLOGY

○ Student Counseling and Career Guidance

As psychologists we are sensitized to the students' psychological needs. While pursuing higher education, the students undergo a stressful and demanding time in their lives and they need help in coping with stress and optimizing their academic performance. Student Counseling and Assessment Services (SCAS) was therefore set up in 2005 at the premises of the Institute to provide counseling to university students in order to deal with their academic, emotional, social, adjustment, behavioral and other related problems. Initially the main objective of SCAS was to address the needs of Punjab University students, however owing to the increasing demand; these services were extended to the University employees. In order to facilitate and maintain the comfort level of the students, the SCAS has been moved to the premises of the University Health Centre since 2009.

Counseling services are offered by highly motivated, committed, fully trained and experienced professionals i.e. a team of clinical psychologists under the supervision of Director, Institute of Applied Psychology and Chief Medical officer, Health Centre. Ms. Sadia Shahzeb a Clinical Psychologist is supervising counseling and assessment services provided at the SCAS. SCAS can be approached to set up appointments and seek advice. Detailed information about SCAS is available at <http://pu.edu.pk/scas/> Ph No. 042-99231256.

Referrals: The students referred to SCAS come either through self-referral, through teachers of their respective departments, through medical professionals at the Health Centre and through the University competent authority.

CENTRE FOR APPLIED MOLECULAR BIOLOGY

○ University-Industry Linkage

The Centre is rendering its analytical services to deal/ solve the various problems of the various industries.

○ Internship and Placement Office

CAMB is providing a platform to the internees. Seven internees has completed their internship in CAMB under Prime Minister Youth Training Scheme for a period of one year. 34 students/ internees from various universities have been accommodated during 2018-19.

○ Student Counseling & Career Guidance

The Centre has formulated a departmental committee named "Student Advisory Committee" which is providing a student counseling and career guidance to the student.



Jobs opportunities/ foreign higher studies are indicated at department's notice board. Career counseling provided by the faculty members during their lectures in line with their specialization within the country and abroad. Resultantly, some students got admissions/ scholarships in foreign universities for their Ph.D degrees.

Faculty of Oriental Learning

KASHMIRYAT DEPARTMENT

- **University-Industry Linkage**

Teachers of the Department have interpreted High Profile delegations of Kashmir and make some concerns about the Kashmir.

CONFUCIUS INSTITUTE

- **University-Industry Linkage**

We have linkages with Chinese companies where we provide opportunity to our alumni to work and get experience.

- **Student Counseling & Career Guidance**

We have student advisers in office who guide students for future carrier build up and how to get chance to get scholarship in China.

Faculty of Pharmacy

UNIVERSITY COLLEGE OF PHARMACY

- **Internship and Placement Office**

One officer is dealing with the internship program for Community Pharmacy, Hospital and Pharmaceutical Industry.

Faculty of Sciences

CENTRE FOR INTEGRATED MOUNTAIN RESEARCH

- **University-Industry Linkage**

Many national and international organizations collaborate with the Centre to carryout research activities in terms of financing, data collection, analysis and finalization of research reports/Thesis.

- **Student Counseling and career Guidance**

Graduates of the CIMR are provide guidance and career counseling by the faculty members of the CIMR in line with their specialization and current scenarios in the country and abroad.



COLLEGE OF EARTH & ENVIRONMENTAL SCIENCES

○ **University-Industry Linkage / Collaboration**

College of Earth and Environmental Sciences has signed research collaboration with various professional organizations and institutions in order to engage students for research work on Environmental Sciences, Applied Hydrology, Geomatics and Tourism and Hospitality Programs.

○ **New Initiatives**

- Climate Change Campaign in Collaboration with OXFAM Pakistan
- Initiation of collaboration with University of Management Technology (UMT), Lahore
- Initiation of collaboration with Neijiang Normal University, China
- Initiation of collaboration with Department of Environmental Sciences & Engineering, GCU, Faisalabad

○ **Internship and Placement Office**

Students of The College of Earth and Environmental Sciences are offered placements in the various collaborative organization / institutions in order to carry out research work in the areas of Environmental Sciences, Applied Hydrology and Geomatics as well as in the newly launched discipline of Occupational Health & Safety.

○ **Student Counseling and Career Guidance**

The student advisor is all the time available for student counseling in the CEES.

COLLEGE OF STATISTICAL & ACTUARIAL SCIENCES

○ **University-Industry Linkage / Collaboration**

- College of Statistical and Actuarial Sciences has started collaborating with Bureau of Statistics Punjab and Crop Reporting Service, Government of Punjab. We have organized joint meetings and seminars to understand common problems and to highlight areas where we can collaborate to help each other.
- We have also collaborated with HAC Agri Limited. This is a budding food storage industry with many interesting statistical problems. A team of students and teachers of College of Statistical and Actuarial Sciences are collaborating with them to help them solve these problems.
- We have also reached out other potential industries for example, Ehsan Chappal Store (ECS) Pvt. Limited and Service Sales Corporation Pvt. Limited to identify potential domains of collaboration and students' job placements.

○ **Internship and Placement Office**

A sub-office of Internship and Placement is being working in the college to accommodate the students. Industrial Linkage Committee has also been set up which is working in this regard.

○ **Student Counseling and Career Guidance**

A sub-office for 'student counseling and career guidance' is also being operational to accommodate the students of this College.



DEPARTMENT OF PHYSICS

○ **Student Counseling and Career Guidance**

Yes, we do provide counseling services to the students of the Department.

DEPARTMENT OF SPACE SCIENCE

○ **Student Counseling & Career Guidance**

University of the Punjab has established an office for 'students counseling & career guidance'.

INSTITUTE OF CHEMISTRY

There are industry and University linkages. Different industries remain in contact with Institute of chemistry for quality testing for their raw material as well as finished products. We are in process of commercializing out some of our instruments in order to enhance the income sources. No patents yet published in the last year. There is no regular program of internship in our institute. In class rooms after the lectures often teachers talk about moral values and importance of right decision while choosing nature of profession

INSTITUTE OF GEOLOGY

○ **University-Industry Linkage**

Institute of Geology provides consultancy services in material testing and mineral sector organization, WAPDA, NESPAK, and number of organizations in public & private sector.

○ **New Initiatives**

- Institute of Geology is developing research collaboration with the China University of Geosciences, Wuhan, Hubei, China.
- Institute of Geology has developed research collaboration with the China University of Petroleum Hua Dong Qing Dao.

○ **Internship and Placement**

- A number of students of the Institute of Geology got internship in OGDCL / OGTI, Islamabad; PCRWR, Lahore; NESPAK; GSP, Lahore, Mari Petroleum Company Limited, Islamabad and Road Research & Material Testing Institute, Lahore.
- A number of students of the Institute after qualification of B.S. / M.Phil. degrees got placement in various academic and research organizations i.e. OGDCL, GSP, and various Geological firms within the country.

○ **Student Counseling and Career Guidance**

Graduates of the Institute are provided guidance and career counseling by the faculty members of the Institute in line with their specialization and current scenarios in the country and abroad.

PUNJAB UNIVERSITY COLLEGE OF INFORMATION TECHNOLOGY

○ **Technology Incubation Centre**

Open Source Software Development

A research and development project has been conducted at PUCIT during 2008 – 2010 with the title "Integration of Open Source Software Projects in IT Education". NU FAST and Virtual



University were the other two partners of this project. A funding of PKR 37.63 million was secured from ICT R&D Fund for this project. Some of the goals and objectives of this project were:

- To provide training to IT/CS students keeping in view the requirements of their prospective employers (i.e. the software industry).
 - To allow students to learn good programming practices by reading professionally written high-quality code and by getting feedback from professionals.
 - To address (and try to resolve) the issue of the scarcity of quality CS/SE faculty in most of the universities.
 - To help software industry by providing them with the workforce that has worked on industrial strength projects, thus reducing the costs of training programs required for new inductees.
- **Internship and Placement Office**

Since its establishment over 10 years ago, PUCIT Placement Office has played an important part in helping our graduates in availing suitable opportunities for part time and full time employment as well as paid and unpaid internships.
 - **Student Counseling and Career Guidance**
 - There isn't any formal channel for Student Counseling. Our Degree Supervisors and other faculty members use to give proper time to the students for their counseling.
 - To provide Career Guidance to the final year students, the Placement Office managed to arrange talks and discussion sessions by inviting experts from the leading software houses.

SCHOOL OF PHYSICAL SCIENCES

University-Industry Linkage

School of Physical Sciences, University of the Punjab, Lahore is planning to develop industrial collaboration with different industries through academia-industry projects related to Industrial Chemistry and Applied Physics. In this frame reference, research projects are under consideration at Punjab Higher Education Commission (PHEC) and Higher Education Commission (HEC). For details, see please, Chapter 2, Section, "Projects" above.

7

STRENGTHENING PHYSICAL INFRASTRUCTURE

Chapter

- Development Projects (Laboratories, Libraries, etc.)
- Research Equipment
- Construction Projects



**CHAPTER****7****Strengthening Physical Infrastructure****Faculty of Arts & Humanities****COLLEGE OF ART & DESIGN**

- **Development Projects** (Laboratories, Libraries etc.)

We have three Computer Labs consisting of 76 computers and 3 Libraries having 15589 books.

DEPARTMENT OF ENGLISH LANGUAGE & LITERATURE

- **Development Projects** (Laboratories, Libraries, etc)

The M. Phil, ELT and Linguistics sections of the Department Library have been computerized. The formation of electronic data-bank of MA English books is in progress.

DEPARTMENT OF HISTORY & PAKISTAN STUDIES

- **Development Projects** (Laboratories, Libraries, etc.)

The Library of Department of History contains a good collection of books, journals, reports; newspapers covering a wide-range of themes related to history had purchased 117 books & journals.

- **Construction Projects**

New Doors & Tiles was purchased for the Department.

DEPARTMENT OF PHILOSOPHY

- **Development projects** (Laboratories, Libraries, etc.)

The Department has its own Library & Computer Lab for Students

PAKISTAN STUDY CENTRE

Development projects (Laboratories, Libraries, etc.)

The Centre's Library contains a good collection of books, journals, reports, newspapers covering a wide-range of themes related to history, politics, economy, geography, languages, culture and literature of Pakistan. There is also a sufficient collection on the South Asia, Central Asia and the Middle East. New books are being added on regular basis. The library receives more than 20 research journals covering a vast field of subjects particularly Social Sciences. The Library is also acquiring English and Urdu local newspapers.



Faculty of Behavioral & Social Sciences

DEPARTMENT OF SOCIAL WORK

- **Development Projects** (Laboratoies, Libraries, etc.)
Library of the Department added 79 new books on different subjects in the reporting period.

INSTITUTE OF SOCIAL & CULTURAL STUDIES

- **Development projects** (Laboratories, Libraries, etc.)
In order to upgrade the library facilities 450 number of latest books has been added in the Institutes library.

Faculty of Commerce

HAILEY COLLEGE OF BANKING AND FINANCE

- **Development Projects** (Laboratories, Libraries, etc)
136 Nos. books were purchased for Library.
8406 Nos. total books in Library.
- **Research Equipment:**
Students are being facilitated with availability of on line journal and use of IT.
- **Construction Projects:**
Rehabilitation and Renovation of the Noor Ud Din Zangi Hall, Hailey College of Banking & Finance from own sources estimated to cost Rs.20. 8 (M) on completion.

HAILEY COLLEGE OF COMMERCE

- **Development projects**
 - 3 Computer Labs, 01 Open Shelf Library
- **Construction Projects**
 - Plan to construct Multipurpose hall
 - Extension of Computer Labs

Faculty of Economics & Management Sciences

DEPARTMENT OF ECONOMICS

- **Development projects** (Laboratories, Libraries, etc.)
Services like OPAC is introduced in case of library during the reference period.
- **Research Equipment**
Smart PLS 3 Professional, Seat License for 1 year.



- **Construction projects**

- Project “Construction of School of Economics at Q.A.C, Lahore” was initiated in 2019.

INSTITUTE OF ADMINISTRATIVE SCIENCES

Up gradation of physical infrastructure. Keeping in mind the growing need of having more class rooms and offices amid growing numbers of students and professionals, IAS has recently updated its old building by getting an additional floor constructed. This floor has two large examination halls along with 10 state of the art specialized staff & faculty offices to fulfill the growing institutional needs.

Technological Infrastructure. With the objective of making students well versed in usage of information technology and to enhance their computer literacy skills, IAS has well equipped computer laboratories which cover an area of 4800 square feet. IAS has two well-equipped computer laboratories offering state of the art networking and IT facilities. These labs are equipped with 250 computers with latest software like MS Office, SPSS, Corel Draw, Adobe etc. Strong anti-virus software named ESCAN is installed to prevent viruses from attacking the systems. Instructions/guidelines for the users regarding safety regulations or alike have been displayed on the lab notice boards. Also we equip our students with the usage of IT by offering multiple courses throughout their stay at IAS. To enhance the research capacity of scholars, workshops for the use of research software for both quantitative and qualitative analysis are also offered on regular basis. In addition, our website is fully functional and updated regularly for on line information and services. It can be reached at www.ias.pu.edu.pk

INSTITUTE OF BUSINESS ADMINISTRATION

- **Development projects (Laboratories, Libraries, etc.)**

There are two fully equipped and modern computer labs for the students at IBA, having 170 state-of-the-art computers. These labs are equipped with multimedia projectors and sound systems.

IBA Library

Sr.No.	Description	Quantity
1	Total books available as on 30-09-2019	21,814
2	New books added during the reporting period	16
3	Total book as on September 30, 2020	21,830

In addition to above books, IBA library is also regularly subscribing for 1 (one) foreign and 9 (nine) local famous journals.

- **Construction projects**

Work completed on construction of tuff tiles passage road at IBA through self-supporting fund of the institute. The estimated cost for the said work was about Rs. 3.4 millions.

INSTITUTE OF BUSINESS AND INFORMATION TECHNOLOGY

- **Development Projects (Laboratories, Libraries, etc.)**

The institute has three computer labs, one general computer lab for students to work on their assignments, projects and research activities and Two classroom labs, with 204 computers.



- The institute is using maximum modern facilities such as computer hardware and software, internet, and multimedia equipment.
- IBIT library has more than 4637 books along with more than 1230 MBIT Thesis and more than 400 Internship Reports.
- **Construction Projects**
A medium size prayer area is being constructed at IBIT for Students, Faculty and Staff on self-reliance basis.

Faculty of Education

DEPARTMENT OF SPECIAL EDUCATION

In the Computer Lab of the Institute is running with 10 computers and now is under renewal process.

Faculty of Engineering & Technology

INSTITUTE OF ENERGY AND ENVIRONMENTAL ENGINEERING

- **Development Projects (Laboratories, Libraries, etc.):**
A new PC-I for converting this Centre into Energy and Environmental Engineering Institute has been approved the building of which is being constructed. This new building contains 20 new labs and a library as well.
- **Construction Projects**
After the approval of competent authorities, new building is in the construction phase, under the new PC-1 entitled as “Strengthening of Academic & Research Programs at University of the Punjab” where grey structures of basement, and first floor have been completed.

DEPARTMENT OF METAULLURGY & MATERIALS ENGINEERING

- **Development Projects**
The development of new laboratories and the refurbishment of existing laboratories have successfully been completed.
- **Research Equipment**
Scanning electron microscope with EDX analysis, X-ray diffractometer, Atomic force microscope, Potentiostat/Galvanostat, Universal testing machine, Spectrometer, UV spectrometer coupled with Potentiostat, Hardness testing machines, Optical microscopes, Micro Vickers Hardness tester, Metallography equipment, Furnaces, Ball mill, Magnetic separator, Froth flotation equipment, Sand testing equipment, Gas fired furnace, Induction furnace, Scratch tester, Abrasion tester, Three roll mill, Vacuum mixer, Ultrasonication bath, Sand blasting machine, Belt grinder, Charpy impact tester, Izod tester, Power supplies, Multimeter, Profilometer, Lab scale extruder and injection moulding machine, Hot press



DEPARTMENT OF POLYMER ENGINEERING & TECHNOLOGY

○ **Development Projects** (Laboratories, Libraries, etc.)

As a result of the completed projects, department has been able to build a good physical infrastructure in the form of labs, classrooms and libraries. Infrastructure of the department includes:

- Thermal analysis lab
- Mechanical Analysis lab
- Polymer and Material Synthesis lab
- Polymer processing lab
- Spectroscopic Lab
- Paint and Coating Characterization lab
- Library
- Class rooms

○ **Research Equipments**

A handful of glassware, required for research along with necessary chemicals have been purchased from the regular budget of the department during the year 2019-20.

INSTITUTE OF CHEMICAL ENGINEERING & TECHNOLOGY

○ **Development projects**

The institute receives budget for its development projects from University of the Punjab and HEC.

○ **Research Equipments**

The institute has state of the art research labs. Upgradation of these labs is a continuous process. Postgraduate labs are adorned with state of the art Analytical and Experimental facilities:

Automatic Density Meter, Karl fisher Titration Apparatus, Particle Size Analyzer, CFBC Feeder, Flame Photometer, Analytical Balance, pH meter, Conductivity Meter, Refractrometer, Gas Chromatograph, Atomic Absorption Spectrometer, Micrometrics Chemisorb, Rheometer, High Performance Liquid Chromatography

○ **Construction projects**

The faculty offices are being upgraded.

The Institute is currently working on an uninterrupted power supply by virtue of two generators and installed UPS. These generators have been purchased by the departmental savings and Worthy Vice Chancellor's special fund.

DEPARTMENT OF ELECTRICAL ENGINEERING

○ **Research Equipment**

- New components have been demanded in SNE 2021.
- 300 million for equipment purchase.

○ **Construction Projects:** 27 million for construction.



INSTITUTE OF QUALITY & TECHNOLOGY MANAGEMENT

- **Development projects** (Laboratories, Libraries, etc.)
 - Projects to equip Laboratories as per requirements of Pakistan Engineering Council etc.
 - Human Factor Engineering Lab (Developed)
 - Computer Lab (Developed and Upgraded)
 - Tools and Die Design (Developed)
 - Development Work study Lab (In process)
 - Development of Material Engineering Lab (In process)
 - Development of Instrumentation Process Lab (In process)

Faculty of Islamic Studies

SHEIKH ZAYED ISLAMIC CENTRE

○ **Research Equipment**

The Library of Sheikh Zayed Islamic Centre is designed to serve the faculty, students, researchers and staff of the Centre. The Library has a rich collection of materials. The collection is ideally developed to encourage and support research activities. The Library is fully automated. It houses over 17000 printed books, 62 national and international journals and also has other materials like research dissertations and reports. The Library is managed by professional and Para-professional staff those are all well qualified and experienced workers dedicated to providing quality services. The books and other reading materials are categorized into various sections according to the specific nature of the collections. Manuscripts are available as well as computer facilities for researchers and scholars.

Faculty of Law

PUNJAB UNIVERSITY LAW COLLEGE

- **Development Projects** (Laboratories, Libraries, etc.)

College Library: The College library has recently been renovated thoroughly by the concerted efforts of Dr. Shazia Qureshi, Principal, University Law College by providing modern research technology and friendly atmosphere to the researcher, faculty members and the students.
- **Construction projects**

The College has renovated its Hall which was in deteriorated condition and has also been given the name as 'Edhi Hall'. New Floor Tiles have been laid down in the College Library.



Faculty of Life Sciences

CENTRE FOR CLINICAL PSYCHOLOGY

- **Development projects** (Laboratories, Libraries, etc.)

Resources	Existing Facilities Available	New Facilities Added in 2020
Computer Lab/Wifi	Computer lab is available for students with up to date computer systems.	Strengthened the existing internet facilities with the installation of New Routers. Computer lab upgradation was done by installing the up to date softwares
Testing Lab	Availability of the manual and worksheets to ease students learning and its use in client consultation.	For assessment purposes 4 new tests were purchased Adaptive Behavior Assessment System (Pre-school Kit) Adaptive Behavior Assessment System (Adult Kit) Adaptive Behavior Assessment System (School Print Kit) Comprehensive Test of Nonverbal Intelligence
Library	Library is equipped with more than 6000 books. Dewey Decimal Classification Scheme (DDC) used to classify the books	Usage of Multilingual Library and Information Management System (MLIMS) so that record can be stored in both English and Urdu language
Experimental Lab	Experimental lab has a capacity to conduct 40 experiments at a time. It has all the essentials for conducting experiments to build strong foundation of Psychology concepts	Due to Covid-19, experimental lab was not updated as no work was done in this context.

CENTRE OF EXCELLENCE IN MOLECULAR BIOLOGY

- **Research Equipment**

Equipment purchased

Sr.#	Equipment Name	Quantity
1	DSLR Camera Cannon	2
2	CCTV Camera 4 Megapixel # DHI-IPC-HFW1431S-DAHUA	2
3	CCTV Camera 2 Megapixel # DH-IPC-HFW1430S-DAHUA	4
4	Network Video Recorder # DHI-NVR-141KS2-DAHUA6	1
5	Lap top Lenovo Ci-5 8th gen.	3
6	Lap top HP	6
7	Laptop Dell Inspiron 15 Core i7	1
8	LED HP 24" monitor P224	1
9	Projector CASIO XJ-V2	1
10	G5 computer system (used) power Mac	1
11	Computer desktop i5 Dell with LED Monitor 18.5" Dell	1



12	Photocopier machine HP	1
13	HP Laser jet Printer	4
14	Scanner Canon LIDE300	1
15	Aspirator	2
16	Weighing Balance	4
17	Coffee Grinder (Sonifer)	1
18	Micro centrifuge	2
19	Mini Centrifuge D1008	4
20	Beckman Coulter Rotor SX4250	1
21	Dry Heat Block D-Lab	3
22	Deep Freezer Waves	1
23	Upright/vertical freezer Dawlance	1
24	Ultra cold Up right freezer -86 model: TSX50086V Thermo	3
25	Horizontal Mini Electrophoresis Unit cat no. MSMINI10	5
26	iBright FL1000 ImagingSystem Cat#FL1000 Invitrogen	1
27	Incubator	2
28	Benchtop Liquid Nitrogen container 2L Thermo Scientific	2
29	PCR Veriti 96W Thermal Cycler	3
30	pH Meter Benchtop Hanna	6
31	pH Meter small	3
32	Pipette man p-2	3
33	Pipette man p-10	12
34	Pipette man p-20	6
35	Pipette man p-100	12
36	Pipette man p-1000	11
37	Pipette man p-200	5
38	Refrigerator HAIER	1
39	Open Air Rocker Fisherbrand	3
40	Medical Pouch Sealer D-3010HCA	1
41	LED Transilluminator Fisherbrand safe view MINI2	1
42	Vortex Mixer	9
43	Water Bath	5
44	Air conditioner	4
45	Bracket Fan GFC18"	15
46	Exhaust Fan12"	1
47	Pedestal Fan ROYAL 24"	1
48	Telephone Set with CLI	5
49	Steel Cabinet	6

DEPARTMENT OF BOTANY

○ Research Equipment

- Items Purchased from other departmental and university research grants.
- Glassware, glass columns.
- Locally assembled shaker for 200 flasks.
- 12 Microscopes.



DEPARTMENT OF MICROBIOLOGY & MOLECULAR GENETICS

○ **Research Equipment**

Items Purchased from HEC's National Research Program for Universities, International Development Research Center (IDRC), Ottawa, Canada project and from other departmental and university research grants

- Fluorimeter
- Zebra fish culturing and monitoring facility
- Refrigerators, Auto Pipettes and Electronic Pipette Controller
- -80 C lab freezers
- Glass ware, glass columns
- Culture media, chemicals etc
- UV lamp with different ranges
- Micro Centrifuge
- PCR
- High Speed Centrifuge
- Nanodrop Spectrophotometer
- Incubators
- upgradation of general and research lab equipments

DEPARTMENT OF ZOOLOGY

○ **Development projects (Laboratories, Libraries, etc.)**

At present the Department of Zoology has a clear vision to extend its existing research facilities. These are following main components in this respect which are given as under: Strengthening and up-gradation of existing facilities in Zoology Department, Overall improvement and renovation of the department, To establish field research laboratory at Fish Research Farm University of the Punjab for research students of the department, Establishment of Entomology laboratory for studying Biodiversity and Ecology of insects and spiders, To establish Animal house facilities in the department of zoology for rearing of experimental animals.

After the establishment of new building of Zoological Museum, the old Museum Hall has been converted into a seminar Hall and two class rooms. These facilities had strengthened the teaching and research presentation capacity of this department.

○ **Research Equipment**

Department has purchased following equipments during 2019-20
Multimedia Projectors, Spectrophotometers, Computers

○ **Construction projects**

Departmental Museum has been constructed during 2015 which meet the demand of research students of Zoology Department.

Future Plans: For Animal House, Computer Lab, PC-I has been submitted to the University for funding. We are focusing on basic to applied researches according to the need of our country.



INSTITUTE OF APPLIED PSYCHOLOGY

- **Development Projects** (Laboratories, Libraries, etc.)

Experimental Labs. The Institute has state of the art experimental laboratories which are regularly upgraded with latest equipment and apparatus:

Animal Lab. The Institute has an animal laboratory, the first of its kind in the country which provides opportunity to students to carry out pigeon experiments in the field of learning and conditioning. The students gain firsthand experience of demonstrating principles of operant conditioning on pigeons. The students learn to house, magazine train, condition pigeons through various schedules of reinforcement, generalization and extinction.

Human Experimental Lab. The human experimental lab is equipped with the latest apparatus to perform experiments on human memory, perception, learning, problem solving and other mental processes. The planning is underway for establishing a computerized cognitive experimental lab where memory and language experiments will be carried out on computers as well as a behavioral observation lab equipped with one way mirror screen and video facilities along with a fully equipped neuropsychology lab, which will set a bench mark in the history of the Applied Psychology in Pakistan.

Testing Lab. The Institute of Applied Psychology takes pride in having the largest collection of international and indigenous psychological tests and evaluative techniques and still strives to add in new and latest tests to its list. Use of psychological tests is strictly monitored and is in accordance with international codes of ethics. The major collection of tests falls under the following categories:

- Intelligence Scales and Tests
- Aptitude Tests
- Personality Inventories and Tests
- Adjustment Tests
- Achievement Tests
- Art & Social Sciences Tests
- Diagnostic Tests
- Behaviour Checklists
- Language Tests
- Neuropsychological Tests
- Parental Stress Tests
- Family Relation Tests
- Interpersonal Problem Tests
- Self-Assessment Tests
- Reading Tests
- Cognitive Functioning Tests
- Executive Functioning Tests
- Memory Tests
- Vocational Tests
- Indigenous Developed Tests
- Tests Translated and adapted



Health Psychology Consultation Services Center. The Institute of Applied Psychology started its MS Health Psychology program in 2013 and to further enhance professional knowledge and expertise of its students, the Institute recently established Health Psychology Consultation Services Center which provides consultation regarding the management of psychological issues for individuals with physiological diseases under the supervision of Dr. Fatima Kamran, Co-coordinator MS Health Psychology program. Currently, trainee Health Psychologist are providing their consultation services to the faculty, students and staff members of the Institute free of cost.

LeaDE Lab. Leadership and Decision Engineering Lab (LeaDE) is a research lab under the direction of Dr. Saima Ghazal at the Institute of Applied Psychology, University of the Punjab. The goals of this lab include: high-quality research in the domain of leadership science and decision-making; fostering industry-academia linkage; and student development.

Group Identification and Social Perception Lab (GISP). Group Identification and Social Perception Lab (GISP) is initiated by Dr. Mujeeba Ashraf, PhD (UK). Research at GISP focuses on to study the group identification patterns in minority groups as well as those factors which can influence our social perception in reference to the development of the social relationships. The mission of the GISP is to enable students (undergraduate, graduate and postgraduate) to conduct social experiments in a structured environment which ultimately help them to understand how people think, feel and behave in different situations in reference to their social identities. This platform is unique in its nature as it provides practical experience in addition to teaching theoretical knowledge to students. Lab is equipped with latest technology in order to facilitate undertake research.

○ **Research Equipment**

- Every year latest computers are added for the scholars of MS/MPhil and PhD. The institute also provides services of latest data analysis software for which training sessions are also arranged. Each year New Psychological tests are added to the Institute's testing lab which is one of the best testing Lab with a wide range of psychological tests for the assessment of personality, intelligence, aptitude, neurological functioning, diagnostic scales, adjustment, etc.
- New and up-to-date equipment was also added to Health Psychology Lab and Consultancy office in order to facilitate students as well as clients.

INSTITUTE OF BIOCHEMISTRY & BIOTECHNOLOGY

○ **Research Equipment**

- Fast Protein Liquid Chromatography (FPLC)
- High-Performance Liquid Chromatography (HPLC)
- Gradient PCR
- Refrigerated Benchtop Centrifuges
- ELISA Reader



- Fluorescent Microscope
- Centrifuge
- Ultra-centrifuge Machine
- Real time PCR
- Gel Doc System
- Mini cold Labs
- Nanodrop

SCHOOL OF BIOLOGICAL SCIENCES

○ **Development projects** (Laboratories, Libraries, etc.)

The infrastructure of School is distributed in three double storied buildings, adjacent to each other, which are provided with all fixtures and facilities of any modern Molecular Biology and Analytical Chemistry labs. Presently there are 28 functional and fully furnished laboratories with the necessary equipment for research work. There are 11 research laboratories in the first building. The second building, which is replica of the first building, houses some specialized laboratories/facilities, for example, Animal Cell Culture, Radioactivity, Cold Room, HPLC, Proteomics, Atomic Absorption, MALDI-TOF Mass Spectrometry, Human Growth Hormone Laboratory, Forensic Diagnostic and Research Laboratory etc., besides a small Lecture Hall. Another small building behind the new block houses a small Animal House, an Insectary and a Green House. The Third wing comprises animal cell culture and enzymology labs which is facilitated with fermenters to scale up the production of recombinant proteins / enzymes. The School has a programme of extensive formal practical training programme in Molecular Biology for researcher, faculty members and post-graduate students of this university, other universities in and outside the town in Punjab and other provinces of Pakistan, in this connection the school holds two training workshops each year, one in spring on recombinant DNA Technology and other in autumn on production and purification of recombinant protein. School is making rapid progress and is heading towards its objectives with the concerted efforts of the faculty members and the able guidance of the Director General.

○ **Research Equipment**

Sr#	Name of Items	Make/Model	Qty	Year	Status
1	Microbiological Safety Cabinet	Model:ClassII Type A2 Make: Local Fabricated	01No	2019	Functional
2	Shaking Incubator	Model:ZWYR-240 Make:Labwit Australia	01No	2019	Functional
3	Gel Documentation System	Model: Ingenious Make: Syngene England	01No	2019	Functional
4	Multi Scan Spectrophotometer	Model: CE7400S Make: Cecil UK	01No	2019	Functional
5	Biohazard Safety Cabinet 4Ft	Class II, Type A2 Make: Local Fabricated	01No	2019	Functional
6	Real Time PCR System	Model: Step One Plus Make: Thermo Fisher	01 No	2019	Functional
7	Plant Growth Chamber	Model: KK5750 Make: Poleko Poland	01 No	2020	Functional



8	Vacuum Pump	Model: DUO3 Make: Pfeiffer	02 Nos	2020	Functional
9	Centrifuge Refrigerated	Model: Rotina 380R Make: Hettich Germany	01 No	2020	Functional
10	Micropulser Electroporator	Model: Micro Pulser Make: Bio-Rad	02 Nos	2020	

CENTRE FOR APPLIED MOLECULAR BIOLOGY

- **Development Projects** (Laboratories, Libraries, etc.)

Development of BSL-3 lab project was initiated through Punjab University umbrella Project.

Faculty of Oriental Learning

DEPARTMENT OF KASHMIR STUDIES

- Development projects (Laboratories, Library, etc.)

Sr. No.	Particulars	Available in 2018-19	Addition	Total
1	Books	5639	90	5729
2	Research Journals	286	00	286
3	Thesis (M.A)	303	00	303
4	Thesis (M.Phil)	12	04	16
5	Ph.D Dissertation	09	02	11

UNIVERSITY ORIENTAL COLLEGE

College Library

Oriental College Library is 2nd big library on language and literature of the University, comprising more than one lac collection including departmental Libraries:

- College Section: 46343 books
- Arabic: shifted New Campus
- Persian: 8302 books
- Urdu: 20758 books
- Ref. 3131 books
- Oriental Publications: 1206. Books

Computer Lab

Two combined Computer Labs for all the Teaching Departments and Institute of Languages of the College, comprises on 27 computers, the students, researchers and Teachers are facilitating with the Internet service.

Language Lab

A combined Language Lab for all the Teaching Departments of this College, is consisting of 30 heads with the facility of Audio-visual aid equipments, computer and Inter net service.



Faculty of Pharmacy

UNIVERSITY COLLEGE OF PHARMACY

- **Development Projects**
 - Construction of a Central Lab Facility (Funds approved)
 - Construction of a 500 capacity seminar room (Funds approved)
 - Construction of a state of the art Animal House (Funds approved)
- **Research Equipment**
 - Particle Size analyzer
 - UV - Gel-documentation system
 - Sterilizer
 - Thermal cyclor
 - Fourier Transformed Infrared Spectroscopy (awaiting delivery)
- **Construction projects**
 - Construction of a state of the art Class Room (Funds approved)
 - Construction of a Quality Control Laboratory (Funds approved)

Faculty of Sciences

CENTRE FOR INTEGRATED MOUNTAIN RESEARCH

- **Development Projects**
 - Up-grading of Building with class rooms and labs
 - Up-grading of Computer Lab.
 - Up keeping of surrounded area of main building of CIMR.

COLLEGE OF EARTH & ENVIRONMENTAL SCIENCES

- **Development projects (Laboratories, Libraries, etc.)**
Library: College of Earth and Environmental Sciences has added more than 100 New books in the library and number of books has been increased beyond 3811.
- **Research Equipment**
 The following Research Equipment was purchased by the CEES under NRPV Project.

Sr.	Name of Equipment	Qty
1.	Portable Multi-Parameter Water Quality Meter or Aquaread Meter or Equivalent	1
2.	FTIR spectrometer	1
3.	Bottom Dredge Sediment Sampler	1
4.	Manta Trawl / Net	1
5.	Digital Sieve Shaker (for Particle Size Segregation and Analysis)	1
6.	Binocular Stereo Microscope	1
7.	Trinocular Stereo Zoom Microscope with Digital Camera	1



COLLEGE OF STATISTICAL & ACTUARIAL SCIENCES

- **Development projects** (Laboratories, Libraries, etc.)
 - The existing Computer Lab. is significantly updated by adding new & latest computers;
 - The classrooms are equipped with audio visual and projector facilities;
 - The Library of the College was computerized and computer facilities are also available in the Library;
- **Research Equipment**

A separate computer lab for research purpose is developed in the college where Ph.D students do the research work with modern tools and equipments

DEPARTMENT OF GEOGRAPHY

- **Development projects** (Laboratories, Libraries, etc.)

5 Labs. & One Library
- **Research Equipment**

Sound level meter and 13 computers

DEPARTMENT OF MATHEMATICS

- **Development projects** (Laboratories, Libraries, etc.)
 - Five Computer Labs.
 - One Library
- **Research Equipment**

102 Computers, 01 Multimedia

DEPARTMENT OF PHYSICS

- **Development projects** (Laboratories, Libraries, etc.)
 - Grant of Rs.1.44M/-M has been approved for construction of Professors rooms.
 - A proposal of PC-1 for Central Instrumentation Laboratory is submitted to University.
 - PC-1 for the Strengthen the Research Infrastructure in Department of Physics is under preparation.
 - Faculty members are preparing research proposals for submission to HEC under the call HEC NRPU by HEC (Deadline January 15, 2020)
- **Research Equipment**

The following research equipment/Labs are available in the Department for the M.Phil/ PhD research work.

 - Computer Lab
 - FTIR Lab
 - SPS Labs
 - Materials growth and simulation lab
 - Thin film lab

**INSTITUTE OF CHEMISTRY**

A number of were purchased in order to boost the research trend in the institute. Like every year, in last year books related to literature and chemistry has been purchased. No considerable construction projects were launched in last year.

INSTITUTE OF GEOLOGY

Development projects (Laboratories, libraries, etc.)

- Upgraded the class rooms of the Institute
- Upgraded Engineering Geology Laboratory set-up.
- Furnishing of the Geological Museum
- Upgradation of Seminar Hall

SCHOOL OF PHYSICAL SCIENCES

- **Development projects** (laboratories, Libraries, etc.)

Some projects are in progress to equip laboratories as per requirements by SPS. Industrial Chemistry and Optics and Photonics Research Laboratories have been established at SPS and majority of the equipments are now in working condition. However, funding will be required to develop the aforementioned laboratories for advanced research.

- **Construction Projects**

With the induction of M.Phil and PhD students and availability of the grants/funding, the current infrastructure will be further expanded according to requirement for research and teaching activities necessary for the development of the School in order to cope with future challenges of Research Innovation and Development.

8

Chapter

STRENGTHENING TECHNOLOGICAL INFRASTRUCTURE

- Digital Library
- PERN
- Video Conferencing
- Campus Management Solution
- Web Portal
- Development of Online Admission System



**CHAPTER****8****Strengthening Technological Infrastructure****INFORMATION TECHNOLOGY CENTRE****Network****PERN 1 & PERN 2**

The University of the Punjab has the largest IT Network Infrastructure to serve the IT needs in the best and latest possible ways. The University of the Punjab has the largest Fiber Optic Cables Local Area Network involving almost 50KM single and multimode fiber optic cable as backbone with more than 7,000 nodes and more than 16,000 laptops, which provide intranet & internet facility between all existing departments offering E-services like Email/Internet facilities. Previously deployed 232 VOIP IP phones over both campuses are in operation, and capable of free calls within the Campuses and enabled receiving Calls from external network (Mobile, PTCL, NTC etc.).

Internet bandwidth has been gradually increased in last few years up to 1070Mbps in Quaid-e-Azam Campus, 150Mbps in Allama Iqbal Campus, 58Mbps in New Campus GIS Centre, 16Mbps in Gujranwala Campus and 32Mbps in Jhelum Campus (total PERN bandwidth 1326Mbps) for students, faculty members and researchers which is the highest bandwidth among any Public Sector University in Pakistan. Similarly, in Allama Iqbal Campus, IT Centre has established a Server Room in College of Pharmacy, and LAN Network through Fiber Optic Cables as backbone among different departments including PUCIT, CAD and College of Pharmacy and wireless point-to-point link between IT Centre to Hailey College of Banking & Finance and Oriental College. Layer3 Core (Huawei S7700 Series) and distribution (Huawei S5700 Series) has been installed in the replacement of AT Core and Distribution switches which is capable of enabling more secure and smooth services. Following key advantages have been achieved by this replacement:

- The RIP will be replaced with Switched Routing (Inter-VLAN Routing) with better performance due to lower overheads. In this way we are going to use both Switching & Routing design benefits.
- All Virtual Local Area Network (VLANs) traffic will flow over trunk interface configured between core and distribution.
- Access Virtual Local Area Network (Access VLANs) and Switch Virtual Interface (SVI) will be configured at core and distribution switches for Routing Purpose.
- Security feature like ARP Attack, LAN Attack, etc. will be deployed at both core and distribution switches. In addition, access can be blocked and permitted for inside IP subnets using ACL. Live IP can be assigned at core switch Ethernet interface for management and GRE tunnel translation.



PERN-2

I.T Centre is connected through PERN-2 Project, in which all leading universities of Pakistan are connected at 1Gigabit optical fiber and 10 Gigabit Optical Fiber backbone. The University of the Punjab is the LA-PoP (Local Access Point of Presence) for the PERN-2 setup for other universities in Lahore. IT Centre using 1326Mbps bandwidth through PERN-2 Project in Quaid-e-Azam Campus, Allama Iqbal Campus, GIS Centre, Gujranwala Campus and Jhelum Campus.

Video Conferencing

Education is changing very rapidly, and keeping pace with the evolving technology of the day are teaching practices. As the world shrinks and becomes one big united village, Video Conferencing has made its way into the classroom, and has proved to have innumerable benefits. IT Centre established two state of the art Video Conferencing locations, one in the premises of Centre for Under Graduate Studies and second in VC Committee room (Admin Block) Quaid-e-Azam Campus. Students, Teachers and Management staff are now able to connect with the national and international universities for video Conferencing. Video conferencing provides students with the opportunity to learn by participating in two-way communication. Video conferencing section has performed key role in the progress of university performance during pandemic (COVID-19). Few milestones are given below.

Activities Performed

- Prize Distribution Ceremony of the Result of B.A./B.Sc Part II Annual Examination 2020
- ORIC Workshop
- Seerat-un-Nabi (PBHUH) Conference, 2019
- Seminar. 2019 Department of Botany
- International Conference on Solid State Physics (ICSSP' 2019)
- International Day for the persons with Disabilities 2019
- International Conference of Center for South Asian Studies 2019
- Online Lecture on Key Features of X-Ray Diffractometer
- PSL 5 Live Matches
- Mehfil-e-Mushaira 2020
- 1st Convocation 2020
- CCID Inaugural Session 2020
- 3rd National Conference on Research in Special Education (NCRSE-2020)
- One Day Seminar Department of Economics 2020
- Scotland Pakistan Scholarships Award Distribution Ceremony 2020
- General Body Meeting of PU Employees 2020
- Department of Botany "Orientation Program 2019"
- International Conference of Research on Oncology & Cancer Sciences (IC-ROCS 2020)
- Conference on "Kashmiri Freedom Struggle a Full Spectrum Review after Illegal Indian Annexation"
- Conference on "Recent Innovations in Molecular Sciences 2019"
- Sports Gala 2019



Online Meetings

Sr.	Description
1	Meeting of the Chairman, HEC with COVID-19 Oversight Committee on December 01, 2020
2	Orientation Session on Curriculum Templates and HEC Policy to be held ,24-11-20
3	Meeting of the Advance Studies & Research Board , Tue Dec 1, 2020
4	Meeting of 356th Senate to be held , 26.11.2020
5	Meeting of the Board of Governors of Centre of Excellence in Solid State Physics to be held , 28-
6	Meeting of Advanced Studies & Research Board scheduled to be held, Thursday, 24th September,
7	Progress Review Meetings of Ongoing Projects
8	Meeting to be Held on 18-09-2020 at 2:30 PM @ Fri Sep 18, 2020
9	Meeting of the Sub-Committee to be held , Tue Sep 15, 2020
10	Board of Governors Meeting @ Thu Sep 10, 2020
11	Meeting of (Deans & HODs) to be held ,Thu Sep 3, 2020
12	Meeting of (Board of Faculty of Engineering & Tech), Wed Aug 26, 2020
13	Meeting of 355th Senate to be held Thursday, Thu Aug 27, 2020
14	Meeting of (Deans & HODs) to be held, Fri Aug 21, 2020
15	Meeting of the Advanced Studies & Research Board ,Thu Aug 20, 2020
16	Emergent Meeting of Academic Council to be held , Wed Jul 29, 2020
17	Meeting of(ASRB) to be held , Tue Jul 28, 2020
18	Meeting of(Admission Committee) to be held, Wed Jul 22, 2020
19	Meeting with Affiliated Law College to be held, 21.05.2020
20	Meeting of (Overseas Scholarship Committee) to be held, Thu Jul 16, 2020
21	Meeting of (Deans Committee) to be held, Thu Jul 16, 2020
22	Meeting of (Medical Advisory Committee) to be held, Tue Jul 14, 2020
23	"22nd Meeting of BOG of the SZIC" to be held, Mon Jul 20, 2020
24	Meeting of "Annual Report Committee" to be held , 08-07-2020
25	Interview for the Post of (Associate Professor) ,Thu Jul 9, 2020
26	Meeting of "ASRB" to be held, Tue Jul 7, 2020
27	Meeting of (Admission Committee) to be held, Wed Jul 1, 2020
28	Meeting of (Sports Admission Committee) to be held, Wed Jul 1, 2020
29	Meeting of (Project Steering Committee) to be held, Tue Jun 30, 2020
30	Meeting of Academic Council to be held, 24-06-20
31	Meeting of "Admission Committee" to be held, Mon Jun 22, 2020
32	Meeting of "Selection Board" to be held, Fri Jun 19, 2020
33	354th Meeting of the Senate (Online) to be held, 4th June 2020
34	Meeting with Affiliated Professional Colleges to be held, Tue Apr 28, 2020
35	Meeting with Affiliated M.A/M.sc Colleges to be held, Tue Apr 28, 2020
36	Meeting with Affiliated Commerce Colleges to be held, 27-04-2020



Online Meetings With Hec (2019-2020)

Sr.	Description
1	Expression of Interest for the establishment of smart classrooms
2	Workshop entitled, "Building Self Confidence"
3	16th International Symposium on Advanced Materials
4	25th Vice Chancellors' Committee Meeting
5	26th Vice Chancellors' Committee Meeting
6	3rd Mechanism Meeting of CPEC Consortium of Universities
7	Ehsaas Programme
8	Scientific Review Panels
9	Meeting of the Senate Standing Committee on States and Frontier Regions (SAFRON)
10	Health Profile of students in the light of directions of Honorable Lahore High Court
11	Meeting With PM Special Assistant on NSD
12	28th VC Committee
13	Chairman meeting with Vice Chancellors
14	Meeting of Senate Standing Committee on IT and Telecom
15	Consultative Meeting : Development of ODL Policy
16	Online Progress Review Meetings of Ongoing Projects
17	Online meeting of Chairman HEC with University Teachers regarding BUTA
18	Meeting of President of Pakistan with the VCs
19	Meeting of the Chairman, HEC's with COVID-19 Oversight Committee
20	Meeting of Vice Chancellors of Universities of SAARC Member

Campus Management Solution

People Soft Campus Management Solution is an ERP and already implemented in University of the Punjab. IT Centre CMS Section is providing support to the different departments of University of the Punjab across all campuses in terms of training and technical support. IT Centre has its own computer lab for the Campus Management Solution, equipped with latest multimedia and computers. IT Centre is also managing the Data Centre of Campus Management Solution and providing 24/7 access to all departments.

The main modules of this ERP are:

- Recruiting & Admissions
- Student Records
- Gradebook
- Academic Advisement
- Student Financials & Administration
- Hostel Management Solution
- Self Service (Instructor & Students)



Training and CMS Helpline

The training videos are also available on Punjab University website for user's benefit. Moreover training in CMS is ongoing process, any department wants the training for its new staff can send their staff in IT Centre Lab. for CMS training in any working day. CMS Helpline is an online portal for end users to log their queries regarding any issue they face while using CMS. <http://111.68.103.26/home/cmshelpline/>

- 150+ Queries Resolved (Initiated by Official Letter/Email/Phone)
- Provide training to new employees.
- Maintain System Regularly
- Data Import from SRM to CMS.

Web Portal

The core function of the web section is to update Punjab University website (www.pu.edu.pk) and to design & develop the new portals/ websites for its departments. Web Section has been involved in all stages of the development of web sites - right from planning, design, quality control, launching to online promotion and monitoring.

PU Website Updating

Web section entertained about more than 42,000 queries received from all the Academic and Administrative department of the university. This includes updating of Departments, Faculty Members, Academic Programs, Seminars, Merit lists, Entry test results, Conferences and Journals information from academic departments and Jobs Notices, Date-Sheets, Results, Tender Notices, Schedules and Press Release from administrative departments and many more.

Module	Description
Developed Online Data Collection of BA/BSC Student for Examination Department	<ul style="list-style-type: none"> Online real time Online Data Collection of BA/BSC Student for Examination Department.
Developed Online Roll Slip module for Examination Department	<ul style="list-style-type: none"> Developed and maintain Roll slip system, so student can download their online roll slip.
REDCap Website CMS for Social and Cultural Studies department	<ul style="list-style-type: none"> Developed and configured Redcap System for Social and Cultural studies department.
Maintenance / New Additions Online Payment Integration	<ul style="list-style-type: none"> Online real time payment Integration has been implemented with (HBL) Habib Bank Pvt Ltd. Now the students can pay the dues online.
Maintenance / New Additions to Alumni Reunion Website	<ul style="list-style-type: none"> IT Centre has designed and developed the new website for alumni of University of the Punjab. (http://alumni.pu.edu.pk) and added new features in the website.
ICPU Conference Website	<ul style="list-style-type: none"> IT Centre has developed conference website for "Recent Innovations in Molecular Sciences". http://pu.edu.pk/icpu2019/



Module	Description
PU Admissions Basic Criteria Merit Calculator	<ul style="list-style-type: none"> IT Centre has designed and maintained Basic Criteria Merit Calculator of University of the Punjab. http://journals.pu.edu.pk/old/fee/basicadmission/calculator/
Development of Confucius Institute (CIPU)	<ul style="list-style-type: none"> Maintain and added new features for Confucius Institute, University of the Punjab. http://pu.edu.pk/confuciusinstitute/cipu/
PU Website New Design	<ul style="list-style-type: none"> Maintain and added new features to the new website of University of the Punjab. (http://pu.edu.pk)
Journal of Research (Humanities)	<ul style="list-style-type: none"> IT Centre has developed journal Management system of Journal of Research (Humanities). http://journals.pu.edu.pk/journals/index.php/jrh
Pakistan Journal of Professional Psychology: Research and Practice	<ul style="list-style-type: none"> IT Centre has developed journal Management system of Pakistan Journal of Professional Psychology: Research and Practice. http://journals.pu.edu.pk/journals/index.php/jpp

PU Journals

Almost 45 departmental journals websites are designed and developed by IT Centre web-section, some of them are with the frequency of Bi-annually, annually. Around 80+ journals have been updated last year. <http://pu.edu.pk/home/journals>

Software Development

System	Description
Students Records Management (SRM)	<ul style="list-style-type: none"> SRM Administration Panel has been enhanced by adding features relevant to management of users, documents, eligibility criteria etc.
Online Admissions Portal	<ul style="list-style-type: none"> New features consisting of User Signup and Login, Documents Uploading and Eligibility Criteria handling have been implemented.
Fee Management System (Fee Section - Accounts Branch)	<ul style="list-style-type: none"> Many enhancements have been incorporated in the existing system to handle the fee-related tasks in better and more-organized ways.
Online Registration Portal	<ul style="list-style-type: none"> Various valuable changes & additions in overall application have been made for better usability for users/visitors and officials of the Registration Branch.



Online Elections Results Management	<ul style="list-style-type: none"> Developed required features to manage the various elections results being held in PU (i.e. Registered Graduates [Senate], Affiliated Colleges Principals & Faculty Members (Senate), Town-I Management Committee etc.). Addition/Editing of casted votes. Identification of Bogus Vote w.r.t allowed selection count among candidates. Summary Reports for added results.
Online Sales Form	<ul style="list-style-type: none"> Required by RO-II office to Sale the items i.e. Wheat, Rice etc. Online orders booking form for customers (University Employees) Admin Panel for Manipulation of Orders.
Payroll System (CEMB)	<ul style="list-style-type: none"> This Payroll System has been specifically made for Centre of Excellence in Molecular Biology. New features and updates were made in the system, to facilitate them in generating the salaries of their employees in a better manner.
Payroll Management System (Salary Section)	<ul style="list-style-type: none"> This software is being used for various kinds of disbursement to PU Staff like Salary, House Requisition, Eid Advances etc. Various changes and additions were made in the existing Payroll Management System, as required by the Salary Section (Accounts Branch).
Online Examinations Management Information System	<ul style="list-style-type: none"> Development work was started for Online Examinations Management Information Systems. The following modules have been developed and made live. Examination Admission Forms submission for Regular Students is done by Affiliated Colleges. Examination Admission Forms submission by Private and Late College Students is done by them individually.
Online Exams using Moodle	<ul style="list-style-type: none"> Configuration, management and full system support were provided for Online Examinations conducted by various departments of the university during COVID-19. The online exams were based on Moodle LMS and Safe Exam Browser.



Billing System (Engineering Branch)	<ul style="list-style-type: none"> Very few changes were incorporated in the Billing System according to the new requirements of Billing Section (Engineering Branch). This software is being used by Engineering Branch to manage the Electricity and Gas Bills within university campus.
Hostel Management System	<ul style="list-style-type: none"> Generated new reports as per requirement. This software is in use of Hall Council.
Students Counseling Software	<ul style="list-style-type: none"> New software has been developed for student counseling. It will help the student to take admission in relevant program according to their marks and nature.
Human Resource Management System (HRMS)	<ul style="list-style-type: none"> This software is in use of Establishment I & II. Few changes and reports incorporated during this period. Establishment II implementation is in under process.
Online Job Portal (HR Branch)	<ul style="list-style-type: none"> Applicants can apply online for jobs. Prepared applicant data for eligibility and scrutiny to reduce manual work.

Faculty of Arts & Humanities

COLLEGE OF ART AND DESIGN

- **Web Portal:** Yes
- **Development of online admission system:** Yes

PAKISTAN STUDY CENTRE

- **Digital Library:** Centre provides electronic access to Punjab University's Main Library and HEC Digital Library through its computer lab for students and researchers.
- **PERN:** The Centre is connected to PERN which is a national research and education network of Pakistan which connects premier educational and research institutions of the country.
- **Web Portal:** Centre's significant activities are publicized through social media.

Faculty of Behavioral & Social Sciences

DEPARTMENT OF GENDER STUDIES

- **Digital Library**
Working to convert the old system into new software



- **Campus Management Solution**
Trained the staff on handling the CMS. Presently entering data directly into the New software CMS
- **Web Portal**
Strengthening the website of the Department. Planning to start on-line short courses.

Faculty of Economics & Management Sciences

DEPARTMENT OF INFORMATION MANAGEMENT

- **Digital Library**
 - The teachers and students make extensive use of HEC online sources to fulfill their academic and research needs.
 - The Department has developed its own digital library which is accessible on the intranet to the faculty and researchers
- **Campus Management Solution**
The department has been entering its data in CMS and the work is in progress.
- **Development of online admission system:** We made use of the system as per requirement

INSTITUTE OF BUSINESS ADMINISTRATION

- **Development of online admission system**
All admissions have been made online in 2019 in IBA.

INSTITUTE OF BUSINESS AND INFORMATION TECHNOLOGY

- **Digital Library**
IBIT is working on Digital Library to simplify and accelerate the user access to its knowledge bank. Initially the MBIT Thesis are being made accessible in PDF format.
- **Campus Management Solution**
IBIT has its own Campus Management Solution that enable all the stake holders with prompt information and expedited execution of routine work. Students can check their enrollment status, attendance status, results, and draft transcripts through LAN.
- **Web Portal**
IBIT is easily accessible by students, faculty and staff and worldwide surfers through its website, www.ibitpu.edu.pk.
- **Development of online admission system**
IBIT is one of the first institute at University of the Punjab to conduct its online admission through <http://www.ibitpu.edu.pk/admission>

Faculty of Engineering & Technology

DEPARTMENT OF POLYMER ENGINEERING & TECHNOLOGY

- **Web Portal:** Yes
- **Development of online admission system:** Yes



INSTITUTE OF CHEMICAL ENGINEERING & TECHNOLOGY

- **Digital Library**
The institute is currently being benefited from the digital libraries hosted by the HEC, PU located in the main library.
- **PERN:** Faculty members are encouraged to utilize the PERN.
- **Video Conferencing**
The Institute is utilizing video conferencing facility of the university on need basis.
- **Campus management solution**
The institute has implemented the Campus Management solution for managing student enrollment and examinations. Most of the faculty members have been using Turnitin software for the publication. All MS thesis are mandatory to be tested for plagiarism by this software. All the transcripts are been generated using CMS.
- **Web Portal**
The Institute has a shared web portal with University of the Punjab.
- **Development of online admission system**
The Institute of is planning to develop online admission system to facilitate the candidates in the admission process. However, merit lists are generated collectively for all Engineering disciplines using computer software. After admission process, a CMS formulated by HEC is introduced in the Institute to notify admission lists and results announcements.

INSTITUTE OF QUALITY & TECHNOLOGY MANAGEMENT

- **Digital Library:** Digital Library service is available.
- **Video Conferencing:** Video Conferencing facility is available in the University campus and can be arranged whenever needed.
- **Campus Management Solution (CMS)** has been successfully operating in the institute.
- **Web Portal:** LMS
- **Development of online admission system:** Student Registration Management (SRM)

Faculty of Islamic Studies

INSTITUTE OF ISLAMIC STUDIES

- **Digital Library**

General Books (Excluding digital books)	30856+3362=34218
Reference Books (Excluding digital books)	354
Thesis	2264
Budget Provision for Books	250000



SHEIKH ZAYED ISLAMIC CENTRE

- **Digital Library**
A well-equipped Computer Lab. and digital library is available for research scholars and students of the Centre.
- **Campus Management Solution**
Admission and examinations systems are based on campus management solutions.
- **Web Portal**
<http://pu.edu.pk/home/department/33/Sheikh-Zayed-Islamic-Centre>
- **Development of online admission system**
University online admission system is available for Sheikh Zayed Islamic Centre. All the admissions are managed through this system.

Faculty of Life Sciences

CENTRE FOR CLINICAL PSYCHOLOGY

- **Digital Library**
(Access through Internet) was made possible for the faculty and students to learn online while maintaining the quality.
- **Video Conferencing:** Lecture / Seminar are organized through Video Conferencing
- **Campus Management Solution**
Students Management System (SMS) is used for the admissions, results, classes and accounts related activities.
- **Web Portal:** Information regarding Centre is available on Punjab University Web Portal.
- **Development of online admission system**
Online Admissions for all academic programs are conducted through SMS system for the year 2020. In future all admission will be conducted through online.

CENTRE OF EXCELLENCE IN MOLECULAR BIOLOGY

- **Digital Library:** Digital library resources are available in the Centre as well as in the hostels for the students and faculty members.
- **PERN:** PERN 2 is operational for wired and wireless internet as well as intranet.
- **Video Conferencing:** Polycom VSX-7000 video conferencing solution is available for national and international communications.
- **Campus Management Solution:** Availing CMS deployed by the University of the Punjab.
- **Web Portal:** Website is available for the Centre <http://www.cemb.edu.pk>

DEPARTMENT OF MICROBIOLOGY & MOLECULAR GENETICS

- **Campus Management Solution**
Complete record of departmental students has been updated in SRM. Five office staff is continuously working on it.



INSTITUTE OF APPLIED PSYCHOLOGY

- **Digital Library**

At present, Institutional students are given access to Digital Library of HEC. The Digital Services of the Punjab University Main Library are also accessible from the webpage of the University. Digital Access is provided free of cost to almost world famous journals/e-books i.e. full access to JSTOR, Science Direct, EBSOHOST, IEEE etc.

- **PERN**

Digital Services being provided by the University is based on PERN. This project is also supporting the students in their research activities as non-stop access to internet is given to the students through cable and Wi-Fi connections.

- **Video Conferencing**

Presently institute strongly feels need of Video Conferencing facility and aims to develop infrastructure for the same.

- **Campus Management Solution**

Campus Management Solution (CMS) is also in progress and all the data of the students is entered in this database every year after new admissions and passing out student results.

- **Development of online admission system**

The online admission system has been developed by the University IT Department

Faculty of Sciences

CENTRE FOR HIGH ENERGY PHYSICS

- **Video conferencing**

CHEP has Video conferencing facility especially for participation in BESIII Collaboration physics meetings/Collaboration meetings, etc.

CENTRE FOR INTEGRATED MOUNTAIN RESEARCH

- **Digital Library**

The Centre is providing the digital library facilities to the students with the help of University Digital Library System.

- **Video Conferencing**

The Centre is utilizing video conferencing facility of the University on need basis.

- **Web Portal**

Website is available for the Center <http://www.cimr.edu.pk>

- **PERN**

Digital services being provided by the University is based on PERN



COLLEGE OF EARTH & ENVIRONMENTAL SCIENCES

- **Digital Library**
Efforts are being made to convert the College Library to a Digital Library. The whole data of books is being computerized.
- **Campus Management Solution**
A CMS committee is continuously updating the data of the college in CMS
- **Web Portal**
The College of Earth and Environmental Sciences has established its web portal "www.cees.edu.pk"

COLLEGE OF STATISTICAL & ACTUARIAL SCIENCES

- **Digital Library**
Synchronization with PU Main Library for the use of digital library facilities to our students is under the way.
- **Video Conferencing**
Presently not in operation, however, equipment & techniques are available in the College
- **Campus Management Solution**
Students Records Management (SRM) is fully operational in the College.
- **Web Portal**
Updated information regarding our College is available at <http://pu.edu.pk/home/department/61/College-of-Statistical-and-Actuarial-Sciences>
- **Development of online admission system**
Online admissions have successfully done at the college with collaboration of the University IT Centre

DEPARTMENT OF GEOGRAPHY

- **Digital Library:** Yes
- **Video Conferencing:** Yes
- **Campus Management Solution:** Yes
- **Web Portal:** Yes
- **Development of online admission system:** Yes

DEPARTMENT OF PHYSICS

- **Digital Library**
Synchronization with the PU Main Library to avail digital library facilities available is in process.
- **Web Portal:** Updated information regarding our Department is available at www.pu.edu.pk
- **Development of online admission system**
We are participating central (Punjab University) online admission system.



PUNJAB UNIVERSITY COLLEGE OF INFORMATION TECHNOLOGY

- **Digital Library:** Yes
- **PERN:** 150 MB Bandwidth
- **Video Conferencing:** Yes
- **Campus Management Solution**
CMS provides the standard tools for faculty to manage their online courses, process assignment, maintain grade books and stay in contact with colleagues and students. Students enjoy being able to easily see their assignments, lessons and other information for all of their classes like semesters transcript etc. staff benefits from services such as built-in help desk, textbook requisitions, exam scheduling and faculty/course changes.
- **Web Portal:** Completely redesigned and implemented PUCIT web page: www.pucit.edu.pk
- **Development of online admission system:** Yes

SCHOOL OF PHYSICAL SCIENCES

- **Digital Library**
Digital Library facility at main library of Punjab University is available. Video conferencing facility is also available in the university campus and can be arranged whenever needed.

Punjab University Gujranwala Campus

- **Digital Library:** PUGC library has the access to HEC Digital Library on JSTOR, Emerald, Springer Link and Wiley Online Library.
- **PERN:** Punjab University Gujranwala Campus has been selected as Aggregation Point of Presence (A-POP) for the connectivity of PERN2 by the HEC. PUGC is utilizing 8 MB of internet bandwidth on PERN2.
- **Video Conferencing:** The equipment for video conferencing is available at PUGC.
- **Campus Management Solution (CMS):** The Campus Management Solution is functioning and the following modules have been used:
 - Student Application Entry
 - Term Activation
 - Student Enrollment
 - Student Grading and Enrollment
 - Student Financials
- **Development of online admission system:** Yes

Punjab University Jhelum Campus

- **Campus Management Solution (CMS):** Basic Entrolment, Student Application Entry

9

UNIVERSITY BUILDING COMMUNITIES

Chapter

- University-Community Interaction
- University's Role in Building Community
- Alumni Affairs: Outstanding Achievements etc.



**CHAPTER****9****University Building Communities****Faculty of Arts & Humanities****UNIVERSITY COLLEGE OF ART & DESIGN**

- **University-Community interaction**
Through talks, lectures and get-togethers.
- **Alumni Affairs: Outstanding achievements etc.**
Alumni have won many medals and awards in curricular, co-curricular and extra curricular activities.

DEPARTMENT OF ARCHAEOLOGY

- **Alumni Affairs: Outstanding Achievements etc.**
The students were taken for field studies and practical training in museology to the various archaeological sites and museums.

DEPARTMENT OF ENGLISH LANGUAGE & LITERATURE

- Alumni Affairs: Outstanding Achievements etc.
 - Muhammad bin Imran, currently enrolled in a BS Sem VI at Department of English Language and Literature, University of the Punjab. His love our beloved Prophet Muhammad (Khaatamun-Nabiyyeen) ﷺ compelled him to start his YouTube channel, which makes an attempt to offer recitation of the Holy Quran, Naats and videos motivated by Islam. YouTube Channel Name: Muhammad's World YouTube channel link: https://www.youtube.com/channel/UC48ZU88uou_2SnqX5w_RAw
 - Salik Rehman (BS Sem VII) secured 1 position in English Essay Writing Competition organized by UET Literary Society (2019)
 - Ateeqa Atia Ul Musawar, (Masters 3rd semester, Replica 2018-20) secured 3 position in Drama Category of The Educationist All Pakistan Co-curricular Competition 2019 jointly organized by the Educationist Punjab University Pakistan Higher Education Commission (PHEC) Higher Education Commission (HEC) and National Accountability Bureau (NAB) during September 23-27, 2019.
 - Alina Ahmed (BS Semester III) secured 3rd position at the Inter College Debate Competition held at Queen Mary College on November 14, 2019. She also won 1st prize for Lahore division at the Chief Minister's English Essay Writing Competition 2019.



DEPARTMENT OF HISTORY & PAKISTAN STUDIES

- **Department – community interaction**
The aims of the above Academic programs are to produce qualified researchers in the field of history. The students have already started writing the research articles in journals of national and international repute.
- **Department's role in building community**
The department has been promoting awareness about Pakistan through observing days of national significance, holding seminars and special lectures throughout academic year.

PAKISTAN STUDY CENTRE

- **University-Community interaction**
The aim of these academic programmes is to produce qualified researchers in field of Pakistan Studies. The students have already started contributing research articles in journals of national and international repute. It is hoped that this qualified manpower would produce research on issues of national and international importance.
- **University role in building community**
The Centre has been promoting awareness about Pakistan through observing days of national significance by holding seminars and special lectures.
The Centre also has a Character Building Society of the Centre comprising faculty members and research students of the Centre.

Faculty of Behavioral & Social Sciences

DEPARTMENT OF GENDER STUDIES

- **Alumni Affairs:** Outstanding Achievements etc.
“Gender Alliance” is Alumni of the department and has membership of around 425 student graduates.

DEPARTMENT OF SOCIAL WORK

- **University Building Communities**
As a Faculty of Behavioral and Social Sciences, the Department took part in different workshops and seminars organized by Dean, Faculty of Behavioral and Social Sciences in the said year.

INSTITUTE OF COMMUNICATION STUDIES

- **Department's role in building community**
The Institute is playing pivotal role in strengthening the community of the media professionals as well as community at the larger level. The Institute arranges various types of seminars, workshops, and lectures for highlighting and solving their issues related to the Pakistan society especially with reference to the media.



○ **Alumni Affairs: Outstanding Achievements etc.**

Meetings are causally held with the following significant Alumni.

Syed Yousaf Raza Gilani, Mr. Hamid Mir, Mr. Arif Nizami, Dr. Muhammad Aslam Dogar, Mr. Shuaib Bin Aziz, Mr. Shakoor Tahir, Mr. Asghar Abdullah, Mr. Sarwar Muneer Rao, Mr. Arshad Ansari, Dr. Waqar Chaudhry, Mr. Ashraf Azeem, Mr. Rizwan Ur Rehman Rizi, Mr. Imran Mir, Mr. Taseer Mustafa, Mr. Muhammad Junaid, Mr. Muhammad Ajmal Jami, Ms. Shajia Niazi, Ms. Ayesha Ihtesham, Ms. Nabeeha Ijaz, Ms. Huda Ikram, Mr. Sagheer Rame, Mr. Karmat Bhatti, Mr. Rameez Khan, Mr. Muhammad Usman Raza, Mr. Asif Jafery, etc.

INSTITUTE OF SOCIAL & CULTURAL STUDIES

○ **University role in building community**

Internship of students is an in-built component of the curriculum taught in all the department of ISCS. Through this activity students are given an understanding of the realities of issues discussed with them during their classes. Small projects are allocated to students concerning social welfare and urban development.

○ **Alumni Affairs: Outstanding Achievements etc.**

- The Annual get-together of Alumni Association of Punjab University Sociologists (AAPUS) will be organized at Institute of Social and Cultural Studies in March, 2021.
- Many Alumnus of the Institute are pursuing higher academic degrees in various high profile universities across the globe. An Alumni directory is in process to compile the achievements of Alumnus
- Institute has encouraged its Alumnus to register themselves as member of Alumni of University of the Punjab, Lahore in general and Institute of Social & Cultural Studies in specific

Faculty of Commerce

HAILEY COLLEGE OF BANKING AND FINANCE

○ **University – Community Interaction**

We have organized interactive and religious culture in our college. We strictly observe discipline.

○ **University's Role in Building Community:**

SOPs set by University are strictly observed and implemented. Moral & Ethical values are strictly observed.

○ **Alumni Affairs: Outstanding Achievements etc:**

- "Alumni association plays an important role in the educational upliftment of the University by encouraging the Alumni to take an abiding interest in the progress and development of their Alma Mater. Recognizing the importance of Alumni support to meet the challenges of the new era, Honorable principal Prof. Dr Mubbsher Munawar Khan, took a keen interest to strengthen the relationship between HCBF and its Alumni. To expedite this process the charge of Alumni association is handed over to a senior faculty member of HCBF.



- In response to the efforts of principal HCBF, students have also shown a keen interest and a large number of students have already registered through a registration form, available at the college website. However, to make the registration proceed easy and keep the record of HCBF Alumni up-to-date, a web-based registration system supported by a strong database at its backend is in the development process. This registration system will soon be available at the HCBF website.
- Furthermore, to provide students with an opportunity of reunion under the auspices of Alumni Association, the dinner of Alumni Association is already in pipeline and is currently on hold due to COVID-19 pandemic and lockdown. This dinner is expected to be arranged after the University's permission for conducting such type of social gathering."

Faculty of Economics & Management Sciences

DEPARTMENT OF INFORMATION MANAGEMENT

- **Department-community interaction**
 - Department of Information Management in collaboration with PU Library jointly organized a seminar on "Role of Reading in Personality Development" to mark World Book & Copyright Day. Chairperson Punjab Commission on Women Dr Fouzia Waqar, Principal Oriental College Prof. Dr. Muhammad Fakhar-ul-Noori, Chairperson Department of Information Management Prof. Dr. Kanwal Ameen, poet Rehman Faris, faculty members, librarians and a large number of students were present. In the seminar the speakers stressed the government to take measures for promoting book reading and book loving culture in the country.
 - As mentioned above, the Department conducted collaborative workshops for librarians, researchers and faculty staff within and outside the Department.
- **Alumni Affairs: Outstanding Achievements etc.**
Through patronizing alumni association (PUILMAA) and organizing various activities, the Department is playing a pivotal role in bonding the community.

INSTITUTE OF BUSINESS ADMINISTRATION

- **Department-community interaction**
Business Incubation Centre (BIC) was handed over to IBA which is a great opportunity for boosting SMEs to help individuals create and nurture small startups at our cell and then become drivers for a strong economic community inside Pakistan.
- **Alumni Affairs: Outstanding Achievements etc.**
IBA Alumni Annual Dinner & General Body Meeting was arranged on Saturday February 16, 2019 at Pearl Continental (PC) Hotel, Lahore.



Faculty of Education

DEPARTMENT OF SPECIAL EDUCATION

- **University-community interaction**
 - Institute is providing assessment of hearing with the latest audiology equipment in Audiology lab of the Institute
 - Ph.D and M.A. Students are deputed by the department to serve in special education institutions and Hospitals as a special educationist.
- **University role in building community**
Students as practitioners serving the field in public and private set up.

Faculty of Engineering & Technology

INSTITUTE OF ENERGY AND ENVIRONMENTAL ENGINEERING

- **Department-Community Interaction**
The Institute effectively interacts with the community including students' parents, consultants, industrialists and public media persons etc.
- **Department's role in Building Community:**
Under the guidelines of National Accountability Bureau (NAB), a Character Building Society (CBS) has been made which is actively arranging events on different occasions to provide healthy and positive environment to the student. The main objectives of the CBS is to create a resilient environment for the social evils like bribery, nepotism, favoritism, cheating and fraud by building an over mindset which has zero tolerance against these crimes. CBS at the Institute conducted several seminars/invited/talks/events in this years namely;
 - Seminar on Seerat Un-Nabi on November 8, 2019
On the birth of our Holy Prophet (SAW) during the month of Rabi-ul Awal, a seminar on Seerat Un Nabi was conducted by the Character-Building Society (CBS) of the Institute. Chief Guest of the event, Prof. Dr. Zahir Munir Amir, who is a well-known scholar and a Professor at Oriental College, University of the Punjab, educated the audience regarding the life of our Holy Prophet (SAW) and how his life is a role model and a solution of all the problems that we are facing as Ummah
 - Seminar on Smog Mitigation strategies on November 15, 2019
As a pioneer and a stakeholder on environment related issues, the Institute has organized an awareness seminar on the understanding of smog phenomenon, reasons, issues, affects on human health and its mitigation techniques. The honorable guest speaker, Mr. Naseem Ur Rehman, Director EIA Government of the Punjab, shared his



valuable thoughts on understanding smog in populated regions like Lahore and its suburbs. He has also discussed Government's policies, plans and actions to combat this environmental hazard in coming years. Students gained a lot of information from this seminar and asked many questions from the speaker to further clarification

- **Annual Sports Festival – (February 18, 2020)**

Every year during the spring season, sports festival is arranged by the Institute to encourage the students for their active participation in sports. Different sports activities like cricket matches, football, luddo, hockey, table tennis, badminton and chess are organized among students and faculty members.

Institute of Energy & Environmental Engineering is also playing a vital role in community building by providing consultancy and solutions to the local industries, which are switching to renewable energy sources as well as coal rapidly. In addition, industrial sample testing is provided at convenient rates.

Centre for coal technology is also playing a vital role in community building by providing consultancy and solutions to the local industries, which are switching to coal rapidly. In addition industrial sample testing is provided at convenient rates.

DEPARTMENT OF METALLURGY AND MATERIALS ENGINEERING

- **Alumni Affairs**

Most of graduates are currently working in top government, research and multinational organizations within and outside Pakistan. Moreover, our graduates get admissions in world best institutes for postgraduate studies.

DEPARTMENT OF POLYMER ENGINEERING & TECHNOLOGY

- **University-Community interaction**

Community interaction using electronic social media e.g., WhatsApp, Facebook was established. WhatsApp groups of Alumni, PhD sessions, M.Phil sessions and faculty are active and relevant information's are being provided continually from the department to help students and faculty continually.

- **University role in building community**

Ph.D and M.Phil holders who have accumulated substantial human capital through education, have been identified as "one of the key actors" behind the creation of knowledge-based economic growth. The department thus aims to launch new academic programs. Moreover, the academic programs are strengthened by modernizing departmental laboratories. Enhanced research facilities will increase more post graduate and Ph.D's in the market which ultimately achieve the goal of development of competitive community. In this respect, the department promoted the exchange of knowledge and proper utilization of technological resources available on nationwide as well as on international grounds and played a key role in development of building community on research, education and well as economical basis.



- **Alumni Affairs: Outstanding Achievements etc.**

Department of Polymer Engineering and Technology has maintained proper record of the Alumni since 2011 for all sessions of M.Phil and Ph.D. Information regarding departmental activities, new programs launching, jobs opportunities, scholarships, publications etc. have been disseminated to students by Facebook, WhatsApp and other social media exclusively during year 2019-2020.

INSTITUTE OF CHEMICAL ENGINEERING & TECHNOLOGY

- **Institute-community interaction**

The institute appreciates community interaction activities among the students and faculty. In this regard institute is continuously interacting with the industry as well as international faculty to incorporate and improve new trends and enrich the curriculum.

- **Institution's role in building community**

The institute is actively participating in different bodies constituted under the law to put an impact to improve the quality standards of education and technical requirements for the betterment of community.

- **Alumni affairs: Outstanding achievements etc.**

Alumni office has been established at the institute. The office is building its database for all alumni in the first phase. Alumni of the institute have established a Zakat Fund from which a handsome amount of scholarships is being paid to needy students. The alumni of the institute are serving the industry as well as public sector organizations in various positions. Software has been developed on the faculty of Engineering and Technology level and used for generating merit lists during admission process.

INSTITUTE OF QUALITY & TECHNOLOGY MANAGEMENT

- **University role in building community:** Employer interaction on annual basis

- **Alumni affairs:** Alumni meeting are being held every year and students interact with their passed out seniors for job matters.

Faculty of Life Sciences

CENTRE OF EXCELLENCE IN MOLECULAR BIOLOGY

- **Department-Community Interaction**

The Department provides the opportunity to community such as students from colleges, universities and young researchers to visit the Centre and get knowledge related to applications of Molecular Biology.

- **Alumni Affairs: Outstanding Achievements etc.**

List of Alumni and contact details has been prepared and available on web portal and a get together for alumni is in progress.



DEPARTMENT OF MICROBIOLOGY & MOLECULAR GENETICS

○ **Department-community interaction**

- Dr. Saba Riaz evaluated the thesis of MS/Mphil/MSc/BS students and conducted Viva Voce examination of Lahore College for Women University (LCWU), Lahore.
- Dr. Saba Riaz evaluated the thesis of MS/Mphil/MSc/BS students and conducted Viva Voce examination of University of Lahore (UOL), Lahore.
- Dr. Mehboob Ahmed evaluated the thesis of MS/MPhil students and conducted Viva Voce examination of University of Central Punjab, (UCP) Lahore.
- Dr. Mehboob Ahmed evaluated the thesis of MS/MPhil students and conducted Viva Voce examination of The Women University Multan, Multan.
- Dr. Samreen Riaz evaluated the thesis of MS/Mphil and Msc. students and conducted Viva Voce examination of University of veterinary Sciences, (UVAS) Lahore.
- Dr. Samreen Riaz evaluated the thesis of MS/Mphil/MSc/BS students and conducted Viva Voce examination of Lahore College for Women University (LCWU), Lahore.
- Dr. Samreen Riaz evaluated the thesis of MSc and BSC students and conducted Viva Voce examination of Superior University, Lahore (UOL).
- Dr. Numan Javed evaluated the thesis of Ph.D, MS and BS. students and conducted Viva Voce examination of University of veterinary Sciences (UVAS), Lahore.
- Dr. Numan Javed evaluated the thesis of MS/M.Phil and BS. students and conducted Viva Voce examination of Government College University (GCU), Lahore.
- Dr. Nageen Hussain conducted Viva Voce examination and evaluated the thesis of MS student of University of Health Sciences.

Conventional and Nonconventional Vegetable Farm

Department is managing conventional and nonconventional vegetable farm (till April 2020) that provide fresh vegetables which are offered to people on and off the university campus.

Floriculture Research Farm

Sale of Plants at low price rate for communities as compared to the market

Activities for the Awareness of the Society

Following activities has been organized by the department for the awareness of the general public in the society.

- Department of Microbiology and Molecular Genetics Organized Interdepartmental Bilingual Competition and Sports Gala.
- Organized One day symposium “Global Challenges of Antimicrobial Resistance” and “Microbial Art Competition” jointly organized by Department of Microbiology and Molecular Genetics (MMG) and American Society for Microbiology (ASM), at Department of Microbiology and Molecular Genetics (MMG), University of the Punjab, Lahore, Pakistan, October 16, 2019.



- Organized: One day Seminar and Pre MOU meeting (University of Universiti Sultan Zainal Abidin) on Molecular Diagnostics 18th October, 2019 at MMG PU
- Organized one day seminar what's new in the detection of *M. tuberculosis* infection? organized by Department of Microbiology and Molecular Genetics, University of the Punjab Adrian Martineau, Queens Mary University of London 21 February, 2020.
- Organized one day seminar on Introduction to bacterial genome sequencing organized by Department of Microbiology and Molecular Genetics Ms Samyia Abrar Superior University Lahore 5th March, 2020.
- **Department's role in building community**
Formulation of Character Building Society (CBS), in the department, which organizes seminars, awareness campaign among the students about civic sense, social responsibility and community service
- **Alumni Affairs:** Outstanding Achievements etc.
Developed Alumni Association of the department, for which home page on social media (Facebook, Twitter etc) has been created, the association organize its annual meeting and alumni remain in contact with the department through social media, email etc. Registration of Alumni Association is in the plan of department.

DEPARTMENT OF ZOOLOGY

- **Department-community interaction**
The Department of Zoology organized Honey Bee Workshop annually, people from different fields attend this training course . especially private sector people take a lot of benefits.

INSTITUTE OF AGRICULTURAL SCIENCES

- **Department-community interaction**
 - Institute has very strong interaction with the farmers as well as agriculture community. Institute invites different agricultural resource persons for interaction with the students and for further collaboration with community.
 - Institute arranged different demonstration plots such as Kitchen gardening through which it help to interact with urban and rural communities
- **Department's role in building community**
 - Institute organized visit to farmer communities and different departments to understand the problems and issues of the farmers and try to highlight or provide the solutions of the specific problems
 - Institute arranges different events i.e. Annual function and Get together and invites all the peoples related with different communities.
- **Alumni Affairs:** Outstanding Achievements etc.
 - Institute has developed very strong coordination with Punjab Agriculture extention department to promote the recent research and knowledge to the different communities.
 - Annual function was organized every year which produced excellent interaction with the societies.



INSTITUTE OF APPLIED PSYCHOLOGY

○ **University-community interaction**

- Institute of Applied Psychology, University of the Punjab, Lahore collaborated with Drug Free Pakistan Foundation (DFPF) to organize fourth Pakistan Youth Congress in Lahore. The purpose of this congress was to provide life skills to the youth of Pakistan in order to empower them for a better future of the nation. Several students of the Institute participated in this event as well few students were youth mobilizes and were involved in the management of the whole event.
- To inculcate the sense of volunteerism and responsibility towards community, the Institute of Applied Psychology has included Community work as mandatory part of their degree. Students work on community project in form of small groups under the supervision of a teacher.

○ **University role in building community**

- Institute's Students and faculty members are sensitized to the needs of the community and are either actively involved in projects having implications for the betterment of the community and also undertake research projects which are of direct relevance to the needs of the community.

○ **Alumni Affairs: Outstanding Achievements etc.**

- Our graduates have been successfully placed in army, industry, special education schools NGOs, Research organizations and academic institutes across the country.
- Institute has established an alumni forum .The mission of the Alumni Forum is to support and promote the interests of the Alumni through the creation of personal links, providing services to its members, maintaining connection and interaction among them.
- The main objective of the Forum is to establish a long standing relationship between graduates and the Institute for mutual benefits

CENTRE FOR APPLIED MOLECULAR BIOLOGY

○ **University-community interaction**

CAMB has strong community interactions through the following:

- The Centre is providing PCR-Based diagnostic testing of Hepatitis B&C to the general public at high economical rates approximately 300 to 400 patients monthly get benefited from these services.
- The Centre is providing diagnostic testing of Covid-19 to the general public at high economical rates approximately 860 patients get benefited and
- At CAMB, Approximately 1625 patients of Covid-19 get benefited from diagnostic testing services under Punjab Health Department program.
- CAMB is providing DNA sequencing and genotyping facility to the students of various universities and R&D organizations.
- CAMB is providing the opportunity to students/ young researchers from different universities to visit the Centre and get knowledge related to applications of Molecular Biology.



- **Alumni Affairs:** Outstanding Achievements etc.
CAMB has passed out its fourth batch of 28 students of M.Phil session (2018-20). Out of these, some students got foreign scholarships for Ph.D.

Faculty of Oreintal Learning

DEPARTMENT OF KASHMIR STUDIES

- **Alumni Affairs: Outstanding Achievements etc**
16 Graduates of the Department of Kashmiryat are teaching as Assistant Professor, Lecturer in Muzaffarabad University Azad & Jammu Kashmir, Post Graduate College, Kotli, Azad Kashmir, G.C University, Faisalabad, Shah Faisal University, Saudi Arabia

Faculty of Sciences

CENTRE FOR INTEGRATED MOUNTAIN RESEARCH

- **Department-community Integration**
The Centre's activities mainly based on community participation, therefore, effectively interact with the community including students' parents, consultants, public and private organizations, NGOs etc.
 - Efforts are made in this context through regular "Field Work" activities.
 - *International Mountain Day 2019:* Centre for Integrated Mountain Research (CIMR), University of the Punjab, Lahore has celebrated the "International Mountain Day 2019" on December 11, 2019. Director CIMR Prof. Dr. Munawar Sabir, faculty members and a large number of students participated in the event.
- **Department's Role in Building Community**
The Centre arranges various types of seminars, workshops and lectures for highlighting and solving their issues of field.
- **Alumni Affairs:** Outstanding Achievements etc.
The Centre recently announced on Centre website to establishment of Alumni association. This effort will be beneficial to all stakeholders.

COLLEGE OF EARTH & ENVIRONMENTAL SCIENCES

- **Department-Community Interaction**
The College of Earth and Environmental Sciences is making all sorts of efforts to educate the masses on current environmental issues. On World Environment Day (June 5) awareness programs were arranged at the College. Moreover, the Tree Plantation Campaigns are also launched by the CEES in collaboration with the NCPC, Islamabad.
- **Department's role in building community:**
A constructive role is being played by the faculty and students of the College.



COLLEGE OF STATISTICAL & ACTUARIAL SCIENCES

- **University-community interaction**

College provides expertise and consultancy services in the field of Statistics, Operation Research, Actuaries and Business Management to the various organizations / departments in the country.

- **University role in building community**

- A seminar on the Data Handling & Key Functions of the Bureau of Statistics was organized on Thursday, February 13, 2020 in which all the students and faculty members participated. Many guests also participated in the seminar from all over the university / institution.
- Two days workshop on Data Analysis using SPSS was organized from 4th March, 2020 to 5th March, 2020. Many students participated in the workshop from all over the university / institution.
- Centre of Health and Gender Equality for the peace promotion activities under the title of peace for the moral, spiritual and character building phonemes under sports, art, culture, debate and literary societies collaborates with College of Statistical and Actuarial Sciences. This Centre conducts training of the above-mentioned societies for the promotion of peace by conducting mentorship sessions with students and then the students conduct social action projects in the College.

- **Alumni Affairs: Outstanding Achievements etc.**

A meeting with the alumni of the College who are currently serving at key posts in various public and private organization was held at the College. The plans for the improvement in educational and professional skills according to modern needs were extensively discussed.

DEPARTMENT OF GEOGRAPHY

- **Alumni Affairs: Outstanding Achievements etc.**

Old Geography Students Association holds Annual General Body Meeting and Dinner each year from 22 March followed by one day picnic tour to place of Geographical Importance.

INSTITUTE OF CHEMISTRY

There is strong interaction among the faculty members. There is small meeting arranged every day at 11:00 am in the institute where all the teachers are gathered and discuss different issues. At University level, lectures and seminars are arranged on regular basis. This could also provide a platform for the faculty members of the University to do interactions with other faculty members. Different events are also arranged in which students and teachers both participate that give the opportunity to students to get interact with the teachers.

INSTITUTE OF GEOLOGY

- **University-community interaction**

Institute of Geology provides expertise and consultancy services in the field of Geology to the various geological organizations in their ongoing projects in the country.



- **University role in building community**

Faculty members, graduate and postgraduate students of the Institute of Geology actively participate in various geological community services being organized by the geological associations like Pakistan Association of Petroleum Geologists, Punjab Geological Society etc.

- **Alumni Affairs:** Outstanding Achievements etc.

Constitution of Alumnae of the Institute of Geology is in progress.

10

SPORTS

Chapter

- Inter-Departmental Sports
- Participation in National Championship
- Achievements at National Level
- Incentives and Honours/Awards for Sports Persons





CHAPTER 10

Sports

Department of Sports (Men)

Results of all Pakistan intervarsity championships (Men) 2019-20

Sr No.	Game name	Position
1	Cricket	1 st
2	Boxing	1 st
3	Football	1 st
4	Squash	2nd

Department of Sports (Women)

Intercollegiate 2019-20

▪ Table Tennis

Date	10-01-2020
Venue	Punjab University Gymnasium New Campus
Participating Teams	08 Teams
Winner	Punjab University Teaching Department
Runner	F.G Degree College for Women, Kharana, Cantt.
Third	Govt. College for Women, Town Ship Lahore
Fourth	Hailey College of Commerce, University of the Punjab, Lahore.

▪ Volleyball

Date	13-01-2020
Venue	Punjab University Gymnasium New Campus
Participating Teams	05 Teams
Winner	Punjab University Teaching Department
Runner	Govt. Allama Iqbal College for Women, Sialkot.
Third	Govt. Degree College for Women, Sangla Hill (N.S).
Fourth	Govt. College for Women, Township, Lahore



▪ **Badminton**

Date	16-01-2020
Venue	Punjab University Gymnasium New Campus
Participating Teams	05 Teams
Winner	Punjab University Teaching Department
Runner	Homeconomics College for Women. Lahore
Third	Govt. College for Women, Township. Lahore
Fourth	Govt. College for Women, Baghbanpura. Lahore

▪ **Football**

Date	21-01-2020
Venue	Department of Sports Women, 1-Crust Road, Lahore
Participating Teams	05 Teams
Winner	Govt College for Women, Township Lahore
Runner	Punjab University Teaching Department
Third	Post Graduate College for Women Wahdat Colony Lahore
Fourth	Govt. College for Women Kot Khawaja Syed

▪ **Basket ball**

Date	22-01-2020
Venue	Department of Sports Women, 1-Crust Road, Lahore
Participating Teams	05 Teams
Winner	Punjab University Teaching Department
Runner	Govt. College for Women, Baghbanpura. Lahore
Third	Govt. College for Women, Town Ship Lahore
Fourth	Queen Merry College for Women

▪ **Netball**

Date	24-01-2020
Participating Teams	05 Teams
Winner	Govt. College for Women, Town Ship Lahore
Runner	Punjab University Teaching Department
Third	Queen Merry College for Women
Fourth	Govt. Himayat e Islam College for Women, Lahore

▪ **Rowing**

Date	01-2020
Venue	Punjab University Gymnasium New Campus
Participated Teams	0 Teams
Winner	Punjab University Teaching Department



▪ Taekwondo

Date	10-02-2020
Venue	Punjab University New Campus, Lahore.
Participated Teams	05 Teams
Winner	Punjab University Teaching Department.
Runner	Govt. Post Graduate College Wahdat Colony Lahore.
Third	Govt G.N. Degree College Nankana Sahib.

University Sports League 2019-2020 (USL)

▪ Table Tennis

Venue	Education University Lahore
Winner	Punjab University Lahore.
Team Members	Zile Huma, Maria Khan, Anam Rasheed, Aymen Abeer, Fatima Jabeen, Saima Farooq

▪ Athletics

Venue	Punjab Stadium Lahore
Winner	Punjab University Lahore
Team Members	Aisha Aneeq, Saba Yousaf, Sbeha Ali Akbar, Farzana Ismael, Sara Mumtaz, Shabana, Nadia Ayesha, Shumaila Ahmed, Mafia Parveen, Anila Irshad, Javeria Javaid, Mahnoor Afzal, Sehar Afzal, Memoona Sikandar, Saira, Tehreem Alam, Farah Amjad, Syeda Rida Zahra, Amina Azmat.

▪ Volleyball

Venue	B.Z. U, Multan.
Winner	Punjab University Lahore.
Team Members	Asia, Amna Zafar, Amna Shahzadi, Farah Amjad, Asmat Rehmat, Sumbal, Fatima Jabeen, Rafia Shoaib, Gulnaz, Misbah hina, Nimra Naveed, Sana Khadim, Saba Asghar, Aqsa Hussain, Tayyaba Sajjad.

▪ Badminton

Venue	B.Z. U, Multan.
	Punjab University Women Team Qualified for Final Round.
Team Members	Kousar Javaid, Azmat Firdous, Khadija Nasir, Mehmoona Aziz.

▪ Basketball

Venue	University of the Punjab, New Gymnasium.
	Punjab University Women Team Qualified for Final Round
Team Members	Aqsa Ijaz, Sidra, Urooj Shehzadi, Mahum Aleeha, Muskan Ali, Amna Zafar, Bakhtawar Ali, Asmat Rehmat, Aleena Rasheed, Amina Azmat, Mafia Parveen, Komal Shehzadi, Ifrah.



▪ Football

Venue	University of Sargodha.
	Punjab University Women Team Qualified for Final Round
Team Members	Hira Anum, Kinza Shafa, Sidra, Kafia Karim, Rimsha Ghulam, Ume-Amen, Mafia Parveen, Ambreen Shah, Tahleel Fatima, Memoona Sikandar, Sumaira Inayat, Ateeqa, Shumaila Ahmed, Mahnoor Afzal, Noor-ul-Nisa, Shabana, Sehar Afzal, Javeria Chaudry.

Faculty of Arts & Humanities

CENTRE FOR SOUTH ASIAN STUDIES

○ Inter-departmental Sports

Male	Female
14	08

Faculty of Economics and Management Sciences

INSTITUTE OF BUSINESS AND INFORMATION

Currently, around 17 students are enrolled on Sports basis. An online gaming event was organized in which around 50 students participated.

Faculty of Engineering & Technology

DEPARTMENT OF CHEMICAL ENGINEERING AND TECHNOLOGY

○ Interdepartmental sports

Apart from academics, sports is a regular activity at the Institute. Every year during the spring season, sports gala is arranged by the Institute to encourage the students for their active participation in sports, different sports activities like cricket matches, football, ludo, hockey, table tennis, badminton and chess are organized among students and faculty members.

INSTITUTE OF QUALITY & TECHNOLOGY MANAGEMENT

Sports week is arranged in department on annual basis

BSc Industrial Engineering & Management	Sports
Male	Sack Race, Ludo, Tug of War, Badminton, Cricket, Race
Female	Sack Race, Ludo, Tug of War, Badminton, Cricket, Race



○ **Participation in national championships (Gender wise details)**

Name of the student/program/semester	2019-2020		Total
	Male	Female	
BSc Industrial Engineering & Management	02	00	02
MSc Quality & Performance Management	00	00	00
2 students participated out of 5			02

○ **Achievements at national level**

Tanveer Ahmad (BSIEM Semester 8th)

Game: Taekwondo 2019 interiversity participated

Achievements: Gold

Faculty of Life Sciences

CENTRE FOR CLINICAL PSYCHOLOGY

○ **Inter-departmental sports**

- The Centre for Clinical Psychology celebrated its sports day on 5th March, 2020. The students of MS, ADCP and BS participated in various sports related activities. These activities included sports, like Cricket, Badminton, Tug of War. There was a special demonstration of Karate. Students represent the colors of spring by wearing colorful clothes and decorating the stalls. The Students of CCP participated in all games enthusiastically. The students of Living Institute for Slow Lerner (LISL) also participated in the event. Children and their parents enjoyed a lot.
- The ceremony was concluded with prize and certificates distribution to the participants by Dr. Saima Dawood, Director, Centre for Clinical Psychology. She appreciated the efforts put forward by the faculty, students and staff members for organizing such an energetic and colorful event.

CENTRE OF EXCELLENCE IN MOLECULAR BIOLOGY

○ **Inter-Departmental Sports**

Sports such as Badminton, Cricket matches, Football, Chess, Table Tennis, Luddo matches are organized among students and faculty members.

Faculty of Oriental Learning

The Sports facility is available in the College for boys and girls. Inter- Department sports competitions were conducted in Cricket, Football, Volleyball, Tug-of-war, Table-Tense and Badminton. The College 124-Annual Athletic-Sports were held in 2020 at the Punjab University Ground.



Male Students Sports			Female Students Sports		
Name Game	1 st Position	2 nd Position	Name Game	1 st Position	2 nd Position
Athletics	Urdu Deptt.	Kashmiryat Deptt.	Athletics	Kashmiryat Deptt.	Punjabi Deptt.
Badminton (Single)	M. Ismail (Punjabi)	Saqulian (Persian)	Badminton (Single)	Fatima Zenib (Persian)	Refat Rani (Urdu)
Table Tennis (Single)	Eshan Kareem (Arabic)	Taqveem (Kashmiryat)	Table Tennis (Single)	Fatima Qurashi (Punjabi)	Sania Rasheed (Persian)
Cricket	Punjabi Deptt.	Kashmiryat Deptt.	Cricket	Kashmiryat Deptt.	Arabic Deptt.
Tug of War	Urdu Deptt.	Arabic Deptt.	Tug of War	Arabic Deptt.	Urdu Deptt.
Foot Ball	Persian Deptt.	Arabic Deptt.	Foot Ball	-	-

Faculty of Sciences

CENTRE FOR INTEGRATED MOUNTAIN RESEARCH

○ Inter-Departmental Sports

As per University's Annual Sport week schedule, the Centre organizes this annual sport week in which all the students participate. The sports week followed by prize distribution to encourage the students. The students who participate in sports are given shields and certificates.

11

Chapter

UNIVERSITY BUILDING LEADERSHIP

- Faculty Leadership (Awards and Representation in Govt. Policy Making Committees, Memberships on various Councils etc.)
- Student Leadership (Co-Curricular Activities: University Dramas, Exhibitions, Expos, Competitions, Debates at National & International Levels)



**CHAPTER****11****University Building Leadership****Directorate of Students Affairs****DIRECTORATE OF STUDENTS AFFAIRS****ACHIEVEMENTS IN ALL PAKISTAN INTERVARSITY CO-CURRICULAR COMPETITIONS**

Team Trophies : 14 Nos.

Total Individual Prizes as Per detail given below : 88 Nos.

First Prizes = 52 Nos.

Second Prizes = 23 Nos.

Third Prizes = 13 Nos.

Total Trophies + Individual Prizes : 14 + 88 = 102 Nos.

It is pertinent to mention that students in the co-curricular competitions have also received cash prizes of more than 0.9 million (Rs.9,40,000/-) of PAK rupees.

ARRANGEMENTS AND COORDINATION BY THE DIRECTORATE OF STUDENTS AFFAIRS IN VARIOUS PROGRAMS AND VISITS.**Inter-departmental Competitions 2019**

The primary task of the Directorate of Students Affairs is to provide conducive environment to the students of Punjab University to explore their hidden talent / potential through engaging them in different co-curricular activities. The vibrant and ambitious students take part in these activities and their energies are positively channelized for the personality development and betterment of the social environment. Further the participating students gain practical experiences and physical exposure to the audience which is necessary for the confidence building and personality grooming. The Directorate of Students Affairs feels honor to mention that keeping in view the foregoing goals in mind the interdepartmental competitions 2019 were held at Raazi Hall, Centre for Undergraduate Studies, University of the Punjab, Lahore. As it was not possible to conduct the competitions in all co-curricular categories in one day so these competitions were held on weekly basis for administrative convenience.

It is matter of pleasure that a large number of students from different departments of the Punjab University took part in these competitions with full zeal making it a very memorable and successful event.

**Qiraat Competitions Held On 14-11-2019***Male Category*

In Male category, Muhammad Babar of Sheikh Zayed Islamic Centre got 1st Position . Hafiz Umer of Electrical Engineering got 2nd Position. Hafiz Ammar Ismail won 3rd Position and Muhammad Imtiaz of Chemical Engineering was awarded consolation prize for his good performance.

Female Category

In female category, Azka Tariq of Department of Zoology got 1st Position. Hafiza Rida of School of Biological Sciences won 2nd Position. Wajiha Rauf of Institute of Applied Psychology got 3rd Position and Atia of Department of Urdu was awarded consolation prize.

Naat Competitions Held On 14-11-2019*Male Category*

In Male category, Saqlain Nawaz of Department of Geography won 1st Position. Beshray Hafay of Institute of Biochemistry & Biotechnology got 2nd Position. Hassan Behzad of Institute of Social & Cultural Studies won 3rd Position. Ijaz ul Mustafa of Chemical Engineering and Aqib Shahbir of Jhelum Campus were awarded consolation prize for their appreciable performance.

Female Category

In female category, Haleema Yousaf of Institute of Communicating Studies won 1st Position. Tehreem Fatima of Department of Zoology got 2nd Position. Syed Maryam of Department of Zoology won 3rd position. Kaneez Fatima of Institute of Biochemistry & Biotechnology and Wafa Zainab of Jhelum Campus were awarded consolation prize for their performance.

Essay Writing Competitions Held on 21-11-2019*Urdu Essay Writing*

Maryam Wahid of Department of Urdu won 1st Position. Iqra Fasih of Department of Microbiology & Molecular got 2nd Position. Moniba Kareem of University Law College got 3rd Position. Tanveer Hussain of Institute of Communication Studies and Laila tul Qadar of Institute of Biochemistry & Biotechnology were awarded consolation prize in Urdu Essay Writing Competition.

English Essay Writing

Saba Khaliq of Department of English Language & Literature won 1st Position. Muhammad Zaeem Zahid Changezi of Institute of Communication Studies got 2nd Position and Saman Kayani of BS Management, Jhelum Campus got 3rd position in English Essay Writing Competition.

Quiz Competition Held On 21-11-2019

Umer Saeed & Abdul Hannan team of Institute of Administrative Sciences won 1st Position in this competition. Muhammad Umar Farooq and Shehryar Abbasi team of Institute of Communication Studies got 2nd Position. Wania Noreen and Ayesha Shahbaz form Institute of Chemical Engineering & Technology won 3rd Position in Quiz Competition.

**Punjabi Taakra Competition Held On 28-11-2019***Team Trophy*

Students of Institute of Communication Studies comprising of Muhammad Saleem Bazmi & Rabia Aslam won Team Trophy in Punjabi Taakra Competition.

Individual Positions

Asim Hussain of College of Pharmacy won 1st Position. Rabia Aslam of Institute of Communication Studies got 2nd Position. Muhammad Mursaleen won 3rd Position in this competition.

National Songs Singing Competition Held On 05-12-2019

Syed Mariyam Tahir of Department of Zoology won 1st Position. Halima Yousaf of Institute of Communication Studies got 2nd Position. Mohsin Fayaz of Institute of Biochemistry & Biotechnology got 3rd Position. Saleeha Tehreem of Institute of Business & Information Technology and Malik Faheem of Jhelum Campus were awarded consolation prize for their performance.

Arfana / Sufiana Kalam Singing Competition Held On 05-12-2019

Ms. Ayesha Afzal of Institute of Social & Cultural Studies won 1st Position. Ayesha Rasheed of College of Pharmacy got 2nd Position. Zartaj Hassan of Department of Philosophy won 3rd Position. Aiman Amjad of Department of English Language & Literature and Salman Amjad of Institute of Business Administration were awarded consolation prize for their performance.

Bilingual Declamation Competitions Held On 19-12-2019*Team Trophy*

A team of Institute of Administrative Sciences comprising of Tabsheesh Fatima in category of English Humors Declamation and Neha Khawar in category of Urdu Serious Declamation won Team Trophy in Bilingual Declamation Competition 2019.

Individual Positions in Urdu Declamation

Iftikhar Ahmad Khan of University Law College won 1st Position. Hafiz Mugheera of Hailey College of Commerce got 2nd Position. Neha Khawar of Institute of Administrative Sciences won 3rd Position. Zia Ullah of Institute of Communication Studies was awarded Consolation Prize.

Individual Positions in English Declamation

Hijab-un-Nisa of Institute of Business Administration won 1st Position. Tabsheesh Fatima of Institute of Administrative Sciences got 2nd Position. Areej Fatima of Institute of Applied Psychology won 3rd Position and Syeda Zainab Zahid of Department of Botany was awarded Consolation Prize.

Poetry And Bait Bazi Competitions Held On 23-01-2020*Urdu Ghazal Competition*

Shehroze Javed of Institute of Administrative Sciences won 1st Position. Sadaf Rubab of Department of Urdu got 2nd Position. Tayyab Shahmeer of Department of Political Science won 3rd Position. Sehrish Irshad of Department of Political Science was awarded Consolation Prize in this competition.



Urdu Nazm Competition

S. Muntaha Fatima of Institute of Clinical Psychology won 1st Position. Hafiz Muhammad Talha Shafiq of Institute of Administrative Sciences won 2nd Position. Shoaib Ahmad of Department of Urdu got 3rd Position. Amina Talat of Department of English Language & Literature and Khalil ur Rehman of Institute of Social & Cultural Studies were awarded Consolation Prize.

Bait Bazi Competition

A team of Department of Political Sciences comprising of Mustansar Siam and Tayyaba Bibi won 1st Position. Department of Persian team comprising of Shah Nawaz & Ghulam Murtaza got 2nd Position. Shehroze Javaid & Maryiam Iqbal of Institute of Administrative Sciences won 3rd Position. Farwa Hussain & Saniya Noreen from Institute of Education & Research were awarded Consolation Prize.

All Pakistan Online Co-curricular Competitions 2020

The Directorate of Students Affairs in compliance of the orders of Vice-Chancellor organized different Co-curricular competitions very successfully during the gloomy and depressive time span of COVID-19. Following participants have won the positions and cash awards in these competitions.

Qiraat Competition

Category 2 (16years to 30 years)

Name	Father's name	Cash Prize	Position
Asad Sharif	Khalid Mehmood	Rs.30000/-	First
Muhammad Bilal	Muhammad Javed	Rs.20000/-	Second
Huzaifa tur Razzam	Haifz Mustafa Sadiq	Rs.15000/-	Third

Category 3 (Above30 years)

Name	Father's name	Cash Prize	Position
Qari Adil	Ghulam Muhammad	Rs.30000/-	First
Qari Muhammad Riaz	Qari Ghulam Farid	Rs.20000/-	Second
Qaria Shahida Karim	Muhammad Ashraf	Rs.15000/-	Third

Naat Competition

Category 1 (08 years to 15 years)

Name	Father's name	Cash Prize	Position
Muhammad Annas	Muhammad Khalid	Rs.30000/-	First
Atif Farhan	Farhan Afzal	Rs.20000/-	Second
Hoorain Iqbal	Muhammad Iqbal	Rs.15000/-	Third

Category 2 (16years to 30 years)

Name	Father's name	Cash Prize	Position
Saddam Afzal	Muhammad Afzal	Rs.30000/-	First
Ayesha Afzal	Muhammad Afzal	Rs.20000/-	Second
Muhammad Usman Munir	Munir Ahmad	Rs.15000/-	Third



Poetry (Ghazal) Competition 2020

Category 1 (Less than 25 years)

Name	Cell No.	Age	Cash Prize	Position
Sajid Hussain	0340-7063448	21 years	Rs.15000/-	First
Rehan Rabi	0305-4575172	18 years	Rs.10000/-	Second
Muhammad Faizan Ahmad	0317-5758829	22 years	Rs.5000/-	Third

Category 2 (Above 25 years)

Name	Cell No.	Age	Cash Prize	Position
Sana Ullah Sana	0334-7842929	32 years	Rs.15000/-	First
Tahir Samar	0316-5474614	33 years	Rs.10000/-	Second
Asif Ali Wasiq	0304-7172600	25 years	Rs.5000/-	Third

Poetry (nazm) Competition 2020

Category 1 (Less than 25 years)

Name	Cell No.	Age	Cash Prize	Position
Syed Muhammad Daniyal	0334-6844544	21 years	Rs.15000/-	First
Aasma Khan	----	23 years	Rs.10000/-	Second
Muhammad Faizan Ahmad	0317-5758829	22 years	Rs.5000/-	Third

Category 2 (Above 25 years)

Name	Cell No.	Age	Cash Prize	Position
Faisal Shahzad	0312-5054567	27 years	Rs.15000/-	First
Waqas Ahmad	0312-6845432	27 years	Rs.10000/-	Second
Syeda Fatima Ahmad	----	Above 25 years	Rs.5000/-	Third

English Essay Writing Competition 2020

Category 1 (Less than 25 years)

Name	Cell No.	Age	Cash Prize	Position
Fahad ul Hassan	0310-7339788	24 years	Rs.15000/-	First
Zoha Jan Tagi	----	21 years	Rs.10000/-	Second
Muhammad Mumtaz Ejaz	0341-6081389	24 years	Rs.5000/-	Third

Category 2 (Above 25 years)

Name	Cell No.	Age	Cash Prize	Position
Sobia Younis	----	27 years	Rs.15000/-	First
Muhammad Ahsan Ashraf	0300-9469749	28 years	Rs.10000/-	Second
Dr. Imran Ali Khaldi	0333-7595025	25.2 years	Rs.5000/-	Third

Urdu Essay Writing Competition 2020

Category 1 (Less than 25 years)

Name	Cell No.	Age	Cash Prize	Position
Tasbiha Ramzan	----	21 years	Rs.15000/-	First
Hussain Abdullah	0332-0045486	20 years	Rs.10000/-	Second
Aiman Riaz	----	22 years	Rs.5000/-	Third



Category 2 (Above 25 years)

Name	Cell No.	Age	Cash Prize	Position
Engg. Nasir Nazir	0308-4488998	29 years	Rs.15000/-	First
Muhammad Qasim Zia Fareedi	0302-6473693	30 years	Rs.10000/-	Second
Aqif Ayaaz	0344-6219998	Above 25 years	Rs.5000/-	Third

Directorate of Students Affairs also deals with the followings:

Online Admissions Guide Book

The Directorate of Students Affairs has been publishing admission guidebook for the information of students seeking admission which contains authentic information about the various departments, program-wise previous merits and its calculation methods, extensive details of the programs offered in the university, contact information of relevant personnel and everything else. However, for the admission 2019-20, the university authorities decided to complete the admission process through online. To cope with the requirement, Director Students Affairs collected the relevant information from all teaching departments, compiled the same and requested to IT department to upload information for the guidance of students who intend to seek admission in the university.

Students Counseling Services

Student Counseling Services are provided to redress the emotional and mental well-being of the students. Trained Counselor is part of Student Affairs professionals who works to solve the mental health problems of the students through counseling and guidance. Online counseling services are also provided those students who are not present on campus due to Covid-19 lockdown. Seminars and lectures are also arranged by the counseling services for awareness of mental health problems in university premises.

Students Complaints Portal

Online counseling services are also provided to those students who are not present on campus due to Covid-19 Lock Down. Seminars and lectures are also arranged by the Counseling Services for awareness of Mental Health problem in University premises.

Directorate of Students Affairs (DSA) has initiated online Complaint Portal for University Students. This facility is only for PU Students to register their complaints related to academics, administration and others.

DSA Bulletin

Directorate of Students Affairs (DSA) has initiated quarterly publication of its Bulletin, comprising of all the highlighted achievements of the University.

Admission Trials

- Each year, University of the Punjab enrolls exceptionally talented students on the basis of co-curricular activities. The admission trials are held in various categories such as Qiraat, Naat, Quiz, Essay Writing (English & Urdu), Calligraphy, Debates (English, Urdu, Punjabi and



Parliamentary Style), Dramatics, Singing / Music etc. and any other category subject to approval of the Admission Committee. The Directorate of Students Affairs has been assigned with the task to organize these trials and manages it profoundly with managerial efficiency and competency. Each year, more than fifteen hundred applicants appear before the Selection Committee constituted by the Vice Chancellor for admission in the university who are evaluated by distinguished and proficient jury panel. These students, once admitted, are further coached on the platform of DSA to represent the university on regional, national and international forums.

- Preparation of list of foreign students studying in Punjab University as per information provided by all teaching departments.
- Preparation of list of students studying in Punjab University other than Punjab province.
- The Director Students Affairs is the ex-officio Secretary of Discipline Committee. Therefore, this office deals with all disciplinary matters and conducts Discipline / Review Committee meetings.
- On the directions of worthy Vice-Chancellor, Director Students Affairs established a group of advisor students of all teaching departments for smooth functioning of student's matters.

Accommodation Facility at Directorate of Students Affairs (STC) for Faculty Members / Officials and Students who Visited Punjab University for Conferences, Study Tours Etc.

Summary Table From

Total Tours	Total Students	Faculty Members / Officials
36	963	280

Short list of Study Tours whose faculty members and students visited Punjab University

- ABA seen University, Islamabad
- Khan Muhammad Boys College, Rawalpindi
- Azad Kashmir University, AJK
- Govt. Boys Post Graduate College Kotli Azad Kashmir
- Peshawar University
- Kotli Azad Kashmir
- Ghazali College Ghotki Sindh
- Technical College Mansehra KPK
- Abdul Wali Khan University Mardan
- Technical College Abbotabad KPK
- Technical College DG Khan
- Bonair College KPK
- Arid Agriculture College Rawalpindi
- Kohat University KPK
- BZU University Multan
- Degree College Azad Kashmir
- Balochistan Residential College Khuzdar



- Cadet College Panjgur Balochistan
- Mughal Model Science College Muzaffarabad
- Batkhela College KPK
- Govt. Post Graduate Boys College Jhang
- General Musa Khan Degree College, KPK
- Conference College of Environmental Sciences, Punjab University
- Conference Sports Department PU
- Kila Saifullah College, Baluchistan
- Govt. College Kalat Quetta, Baluchistan
- Zahoor Khan Govt. Superior College, Peshawar
- Khawaja Ghulam Fareed University, Rahim yar Khan

Faculty of Commerce

HAIELY COLLEGE OF BANKING AND FINANCE

- **Student Leadership (Co-curricular Activities: University Drams, Exhibitions, Expos, Competitions, Debates at National and International Levels:**
Several societies exist in our College and throughout the year Exhibitions, Competitions, and Debates were arranged by them to actively involve the students and to help develop leadership in them. This institutionalized effort has been very helpful.

Faculty of Education

DEPARTMENT OF SPECIAL EDUCATION

- **Faculty Leadership (Awards and representation in Govt. policy making committees, memberships on various Councils etc.)**
Faculty members are working as members peace committee.

Faculty of Engineering and Technology

INSTITUTE OF CHEMICAL ENGINEERING AND TECHNOLOGY

- **Faculty Leadership**
 - Seniors faculty members play an important role in various statutory bodies of the universities (Board of Subjects , Board of Faculty Academic Council, Senate Act etc) The enclosed excellence in the academic matters Moreover, they are members of the different committees formulated by HEC and PEC to improve / upgrade curriculum and variant quality of education in the line of international standards, (accreditation).



- Faculty members are active members of different organizations which are trying to improve the standards of education and research e.g. PEC and PICHE
- **Student Leadership**
Students are encouraged to join and participate in various societies, .E.g Character Building Society Youth, Entrepreneur Society, Chemical Engineering Society etc. constitute at Institute. The students get ample opportunities to enhance their interpersonal and leadership skills.

Faculty of Sciences

CENTRE FOR INTEGRATED MOUNTAIN RESEARCH

○ **Faculty Leadership**

Prof. Dr. Munawar Sabir

- Looking after administrative affairs of the Centre as a Director.
- Convener Board of studies Centre for Mountain Conservation and Watershed management- Integrated Mountain Research (CIMR)
- Convener, Advisory Committee, Centre for Integrated Mountain Research, P.U.,
- Supervising the M.Sc., M.Phil. and Ph.D. research thesis

Engr. Dr. Muhammad Yaseen

- Curriculum design and revision coordination committee, PU-in Charge of Quality Enhancement cell, CIMR, University of the Punjab.
- Incharge Student Affairs, Centre for Integrated Mountain Research, University of the Punjab, Lahore-Pakistan.
- Examination Coordinator, Centre for Integrated Mountain Research, University of the Punjab, Lahore-Pakistan.
- Coordinator Departmental MSc, MPhil and PhD Programs, Centre for Integrated Mountain Research, University of the Punjab, Lahore-Pakistan.
- Incharge Student Affairs, Centre for Integrated Mountain Research, University of the Punjab, Lahore-Pakistan.
- Examination Coordinator, Centre for Integrated Mountain Research, University of the Punjab, Lahore-Pakistan.
- Focal Person, Office of Research Innovation and Commercialization (ORIC), University of the Punjab, Lahore-Pakistan.
- Focal Person, PM HEC Laptop Scheme, Centre for Integrated Mountain Research, University of the Punjab, Lahore-Pakistan.
- Focal Person, Hostel Affairs, Centre for Integrated Mountain Research, University of the Punjab, Lahore-Pakistan.
- Assistant Superintendent, Boys Hostel No. 08, University of the Punjab, Lahore, Pakistan.
- Involve in teaching, research and assist to HoD of the CIMR.

*Dr. Syed Umair Shahid*

- Member, Department Doctoral Program Committee (DDPC), Centre for Integrated Mountain Research, University of the Punjab, Lahore-Pakistan.
- Member, scholarship committee, Centre for Integrated Mountain Research, University of the Punjab, Lahore-Pakistan.

Ms. Saira Batool

- Member, Board of Faculty Science, University of the Punjab, Lahore-Pakistan.
- Member, Board of studies, Centre for Integrated Mountain Research, University of the Punjab, Lahore-Pakistan.
- Member, Purchase Committee, Centre for Integrated Mountain Research, University of the Punjab, Lahore-Pakistan.
- Member, scholarship committee, Centre for Integrated Mountain Research, University of the Punjab, Lahore-Pakistan.

Ms. Bushra Zia Khan

- Member, Purchase Committee, Centre for Integrated Mountain Research, University of the Punjab, Lahore-Pakistan.
- Member, scholarship committee, Centre for Integrated Mountain Research, University of the Punjab, Lahore-Pakistan.

Ms. Nayab Alam

- Coordinator, Departmental Seminar Series, Centre for Integrated Mountain Research, University of the Punjab, Lahore-Pakistan.
- Focal Person, Student career counseling, Centre for Integrated Mountain Research, University of the Punjab, Lahore-Pakistan.
- Member, scholarship committee, Centre for Integrated Mountain Research, University of the Punjab, Lahore-Pakistan.
- **Students Leadership**
 - Students are encouraged to join various community and social organization for developing leadership qualities.
 - Annually, programs been organized on the occasions of 12th Rabiul Awal, 14th August, Iqbal & Quid's day and International Mountain Day

12

Chapter

FINANCE

- Annual Statement of Accounts
- Financial Year at a Glance
- Development Budget
- Recurring Budget
- Self-Generated Income
- Trend of Per Student Spending




CHAPTER
12

Finance

ANNUAL STATEMENT OF ACCOUNTS

	Rupees in million	
Annual Statement of Accounts		Attached
Financial year at a glance		Attached
Development Budget		127.999
Recurring Budget		8044.197
Self-generated Income		5057.835
SAP related activities		No activities

	2018-19	2019-20
Trend of per student spending	Rs. 186,273	Rs. 194,573

Summary of Income

Rupees in million

Head of Income	Original 2019-20	Revised 2019-20	Actual 2019-20
OPENING BALANCE	-	8.016	8.016
GOVERNMENT GRANTS	2,671.180	2,652.956	2,637.002
EXAMINATION FEES	2,886.250	2,786.250	2,513.090
REGISTRATION & DEGREE FEE	1,470.000	850.000	808.268
FACULTY OF BEHAVIORAL & SOCIAL SCIENCES	59.643	48.600	43.402
FACULTY OF ECO. & MANAGEMENT SCIENCES	87.778	80.500	79.811
FACULTY OF ARTS & HUMANITIES	28.470	29.233	28.291
FACULTY OF SCIENCE	133.386	121.869	118.623
FACULTY OF LIFE SCIENCES	74.435	73.578	59.477
FACULTY OF ENGG. & TECH.	39.743	32.026	31.051
FACULTY OF PHARMACY	28.685	24.460	22.331
FACULTY OF LAW	15.124	19.500	19.615
FACULTY OF COMMERCE	50.472	46.321	40.923
FACULTY OF ORIENTAL LEARNING	6.592	4.606	4.194
FACULTY OF ISLAMIC STUDIES	12.071	11.090	10.206
FACULTY OF EDUCATION	3.149	3.637	3.634
GUJRANWALA CAMPUSES	41.343	27.939	24.774
JHELM CAMPUS	14.681	14.681	37.873
FACULTY OF HEALTH SCIENCES	2.000	2.000	2.579
SKILL DEVELOPMENT CENTRE	3.500	4.000	5.038



FOREIGN STUDENTS	20.000	13.000	12.403
HOSTELS ADMISSION FEE & ROOM RENT	9.500	9.000	8.840
RENTS COLLECTION	77.320	64.920	62.358
PUBLICATION	57.600	72.700	72.216
UTILITY CHARGES (RECOVERY)	338.902	310.360	307.595
INCOME FROM QUAID-E-AZAM CAMPUS	60.100	69.300	71.130
ENDOWMENT FUNDS INCOME	521.000	540.000	540.483
MISCELLANEOUS INCOME	108.300	234.500	129.630
Total Income for the Year	8,821.224	8,147.026	7,694.837
Total Funds Available	8,821.224	8,155.042	7,702.853

Summary of Expenditure**Rupees in million**

Head of Expenditure	Original 2019-20	Revised 2019-20	Actual 2019-20
GENERAL ADMINISTRATION	472.588	459.773	449.166
DEPARTMENT OF EXAMINATIONS	1,106.460	1,012.823	984.915
FACULTY OF BEHAVIORAL & SOCIAL SCIENCES	194.845	181.851	176.013
FACULTY OF ECO. & MANAGEMENT SCIENCES	235.283	205.373	199.788
FACULTY OF ARTS & HUMANITIES	221.884	209.530	202.845
FACULTY OF SCIENCE	806.213	758.452	736.149
FACULTY OF LIFE SCIENCES	496.737	486.929	470.565
FACULTY OF ENGINEERING & TECHNOLOGY	302.554	274.234	262.993
FACULTY OF PHARMACY	115.572	102.344	99.863
FACULTY OF LAW	110.980	102.675	99.702
FACULTY OF COMMERCE	183.132	162.746	159.769
FACULTY OF ORIENTAL LEARNING	183.045	156.620	155.090
FACULTY OF ISLAMIC STUDIES	61.259	57.477	55.051
FACULTY OF EDUCATION	67.166	65.498	63.544
SUB CAMPUSES	168.149	164.621	157.822
FACULTY OF HEALTH SCIENCES	363.629	278.631	270.255
IMPROVEMENT OF EDUCATION	745.747	595.003	490.523
SPORTS & GAMES	44.726	41.510	40.544
UNIVERSITY HOSTELS	145.391	145.587	139.437
DEPARTMENT OF PRESS & PUBLICATION	60.515	59.586	57.594
CAMPUS CORPORATION	341.941	319.275	310.515
MAINTENANCE OF LAND & GARDEN	220.310	210.470	206.874
ENGINEERING DEPT. & MAINT. OF BUILDINGS	284.625	279.011	270.134
UTILITY CHARGES	488.500	504.470	499.497
UNIVERSITY MASJID	24.037	24.659	23.790
MISCELLANEOUS	108.633	74.835	63.984
STUDENTS BENEFITS	176.458	139.767	129.762
PENSION & EMPLOYEES BENEFITS	1,629.040	1,443.101	1,396.012
TOTAL EXPENDITURE FOR THE YEAR:	9,359.419	8,516.851	8,172.196
SURPLUS / (DEFICIT) FOR THE YEAR	(538.195)	(361.809)	(469.343)
Bridge Financing through Internal Borrowing			469.343



○ Finance year at Glance

Rupees in million

(A) INCOME	Original 2019-2020	Revised 2019-2020	Actual 2019-2020
Opening balance carried over			8.016
H.E.C. Grants			
Recurring Grants	2,590.391	2,304.357	2,304.357
Supplementary / Additional Grant	-	240.181	240.181
Merit & Need based Scholarships (H.E.C.)	97.456	97.456	97.456
H.E.C. Grant for the year	2,687.847	2,641.994	2,641.994
Grant for the Year I. E. R.	167.197	164.217	164.217
Grant for the year P. U.	2,520.650	2,477.777	2,477.777
Tenure Track	150.530	146.064	147.750
Other Grants	-	29.115	11.475
Total Grants	2,671.180	2,652.956	2,637.002
OWN RESOURCES			
Income from Examinations	2,886.250	2,786.250	2,513.090
Income from Registration / Certificate	885.000	815.000	783.617
Income from Affiliation	585.000	35.000	24.651
Income from Students	601.072	544.040	531.822
Income from Foreign Students	20.000	13.000	12.403
Return on Endowment Fund	521.000	540.000	540.483
Income from Other Sources	651.722	760.780	651.769
Sub. Total (ii):	6,150.044	5,494.070	5,057.835
Total: (Income)	8,821.224	8,147.026	7,694.837
(B) EXPENDITURE			
Pay & Allowances (Faculty)	1,745.569	1,431.463	1,433.672
Pay & Allowances (Non Teaching Staff)	1,062.045	994.499	992.498
Pay & Allowances (Administrative Staff)	1,257.105	1,202.526	1,198.306
Total Pay & Allowances	4,064.719	3,628.488	3,624.476
Other Benefits & Facilities (Faculty)	411.358	383.658	332.054
Benefits & Facilities (Non Teaching Staff)	1,092.831	1,037.450	1,002.097
Hospital & Medicine Charges	190.000	187.000	183.328
Pension / Commutation /Medical All. to Pensioners	1,417.190	1,334.690	1,307.368
Total Benefits/Pensions	3,111.379	2,942.798	2,824.846
Total Establishment Related Expenditure	7,176.098	6,571.286	6,449.322
Remuneration & Conduct of Examinations	599.650	538.546	513.894
Electricity, Gas & Telephone	507.795	523.811	511.918
P.O.L. for Vehicles / Generators	103.252	78.944	72.241
PERN / INTERNET	54.220	54.200	53.524
Lumpsum Provision for Research	165.000	162.500	65.704
National / International Conferences	16.000	14.750	12.607
Overseas Scholarships	30.000	21.000	22.035



Merit/Needy/Special Students Scholarships	151.464	114.274	104.977
R / M Furniture, Equipment, Vehicles	42.425	41.249	32.222
R / M Buildings	138.440	138.769	126.269
Other Operating Expenditure	147.535	102.155	68.916
Chemicals & Glassware & etc.	12.280	11.425	10.569
Development (Works)	100.000	55.000	55.506
Development- Equipment/Furniture/Vehicle/ Land	115.260	88.942	72.493
Total Other Expenditure	2,183.321	1,945.565	1,722.874
Total:	9,359.419	8,516.851	8,172.196
Net Surplus / (Deficit) (A - B)	(538.195)	(369.825)	(477.359)
Bridge Financing through Departmental Funds			469.343

13

Chapter

UNIVERSITY GOVERNANCE

- Heads of Administrative Departments
- Syndicate Meetings
- Academic Council Meetings
- Board of Advanced Studies Meetings




CHAPTER
13

University Governance

UNIVERSITY GOVERNANCE

Chancellor	Chaudhry Muhammad Sarwar
Pro Chancellor	Raja Yasir Humayun Sarfraz
Vice Chancellor	Prof. Dr. Niaz Ahmad Akhtar
Pro Vice Chancellor	Prof. Dr. Muhammad Saleem Mazhar

Deans

Sr #	Faculty	Employee Name	Date of Appointment
1	Faculty of Arts & Humanities	Prof. Dr. Amra Raza	13/03/2020
2	Faculty of Behavioral & Social Sciences	Prof. Dr. Umbreen Javed	28/11/2018
3	Faculty of Economics & Management Sciences	Prof. Dr. Khalid Mahmood	04/12/2019
4	Faculty of Islamic Studies	Prof. Dr. Muhammad Hammad Lakhvi	13/02/2019
5	Faculty of Engineering & Technology	Vacant	-----
6	Faculty of Pharmacy	Prof. Dr. Nadeem Irfan Bukhari	20/08/2019
7	Faculty of Education	Prof. Dr. Abid Hussain Ch.	04/02/2019
8	Faculty of Oriental Learning	Prof. Dr. Khalid Dad Malik	23/09/2020
9	Faculty of Commerce	Prof. Dr. Mubbsher Munawar Khan	12/06/2018
10	Faculty of Law	Vacant	-----
11	Faculty of Science	Prof. Dr. Muhammad Sharif	03/04/2019
12	Faculty of Life Sciences	Prof. Dr. Firdous-e-Bareen	03/12/2018
13	Faculty of Health Sciences	Vacant	-----

**Director**

Sr #	Department Name	Employee Name	Date of Appointment
1	Institute of Business Administration	Dr. Labiba Sheikh	24/08/2019
2	Institute of Social & Cultural Studies	Prof. Dr. Rubeena Zakar	06/08/2018
3	Institute of Communication Studies	Prof. Dr. Nosheena Saleem	04/01/2020
4	Institute of Agricultural Sciences	Prof. Dr. Muhammad Saleem Haider	14/03/2020
5	Centre for Clinical Psychology	Dr. Saima Dawood Khan	06/03/2018
6	Institute of Chemical Engineering & Technology	Prof. Dr. Abdullah Khan Durrani	23/11/2017
7	Institute of Quality & Technology Management	Dr. Muhammad Usman Awan	16/08/2018
8	Sheikh Zayed Islamic Centre	Prof. Dr. Muhammad Ijaz	23/08/2019
9	Institute of Education & Research	Prof. Dr. Rafaqat Ali Akbar	21/03/2017
10	Institute of Biochemistry & Biotechnology	Prof. Dr. Zahoor Qadir Samra	28/10/2019
11	Institute of Chemistry	Prof. Dr. Muhammad Abdul Qadir	25/09/2018
12	Institute of Geology	Prof. Dr. Naveed Ahsan	10/03/2020
13	Centre for High Energy Physics	Prof. Dr. Bilal Masood	19/08/2020
14	School of Physical Sciences	Prof. Dr. Farah Kanwal	17/09/2018
15	Centre for South Asian Studies (Acting Director)	Prof. Dr. Umbreen Javed	08/02/2011
16	School of Biological Sciences	Prof. Dr. Naeem Rashid	22/05/2017
17	Centre for Geographical Information System	Prof. Dr. Shahid Ghazi	18/02/2019
18	Centre for Integrated Mountain Research	Prof. Dr. Munawar Sabir	13/08/2018
19	Sughra Begum Centre For Education Policy & Development	Prof. Dr. Khalil Ahmad	17/01/2013
20	Career Counseling & Placement Centre	Prof. Dr. Abdul Qayyum Chaudhry	17/04/2015
21	Seerat Chair	Dr. Shahida Perveen	07/06/2018
22	Firdousi Chair	Prof. Dr. Syed Muhammad Farid	14/05/2019
23	Dr. Faqir Muhammad Faqir Chair	Dr. Asma Qadri	04/09/2019
24	Dr. Muhammad Hamid Ullah Chair	Prof. Dr. Muhammad Abdullah	04/09/2019
25	Baba Farid Gunj Shakar Chair	Prof. Dr. Naveed Ahmad Shahzad	04/09/2019
26	Human Rights Chair	Prof. Dr. Bushra H. Rehman	04/09/2019
27	Moulana Zafar Ali Khan Chair	Dr. Savera Shami	04/09/2019
28	Rumi Chair	Prof. Dr. Muhammad Sabir	04/09/2019
29	Institute of Business & Information Technology	Mr. Muhammad Saleem Raza	28/10/2019
30	Institute of Islamic Studies	Prof. Muhammad Saad Siddiqui	04/01/2020



31	National Centre of Excellence in Molecular Biology	Prof. Dr. Tayyab Hussain	22/12/2009
32	Institute of Applied Psychology	Prof. Dr. Firdous-e-Bareen	06/05/2019
		Prof. Dr. Raffia Rafique	10/03/2020
33	Sub Campus Jhelum	Dr. Muhammad Mudassar Ghafoor	09/09/2020
34	Centre for Quran & Sunnah	Prof. Dr. Haris Mobeen	09/09/2020
35	Institute of Urdu Language & Literature	Prof. Dr. Zahid Munir Amir	01/07/2018
36	Iqbal Studies Chair	Prof. Dr. Baseera Ambreen	04/09/2019
37	Pak Study Centre	Prof. Dr. Amra Raza	28/04/2020

Chairmen/Chairperson

Sr #	Department Name	Employee Name	Date of Appointment
1	Department of Archaeology	Dr. Muhammad Hameed	04/01/2020
2	Department of Economics	Prof. Dr. Mumtaz Anwar Ch.	28/06/2018
3	Department of Social Work	Prof. Dr. Syeda Mehnaz Akhtar Naqvi	10/03/2020
4	Department of Political Sciences	Prof. Dr. Iram Khalid	28/10/2019
5	Department of Arabic	Prof. Dr. Khaliq Dad Malik	22/03/2020
6	Department of Persian	Prof. Dr. Muhammad Nasir	28/10/2019
7	Department of Kashmiryat	Dr. Nusrat Nisar	14/07/2018
8	Department of Mathematics	Prof. Dr. Malik Zawwar Hussain	28/10/2019
9	Department of Geography	Prof. Dr. Safdar Ali Sherazi	13/08/2018
10	Deptt. of Metallurgy & Material Engineering	Prof. Dr. Mohsin Ali Raza	10/12/2020
11	Department of Botany	Prof. Dr. Firdous-e-Bareen	23/02/2017 22/02/2020
12	Deptt. of Microbiology & Molecular Genetics	Prof. Dr. Abdus Salam	01/07/2018
13	Department of Physics	Prof. Dr. Mahmood Ul Hassan	15/07/2018
14	Department of Space Science	Prof. Dr. Syed Amer Mahmood	05/06/2020
15	Department of Zoology	Prof. Dr. Javaid Iqbal Qazi	02/04/2014
16	Deptt. of Textile Engineering & Technology	Dr. Javed Ashraf Awan	26/09/2018
17	Deptt. of Polymer Engineering & Technology	Prof. Dr. Rafi Ullah Khan	14/07/2018
18	Urdu Development Committee (Convener)	Prof. Dr. Muhammad Kamran	20/07/2018
19	Department of Special Education	Prof. Dr. Humara Bano	04/01/2020
20	Department of Gender Studies	Prof. Dr. Raana Malik	28/10/2019



21	Department of Sports Sciences & Physical Education	Dr. Muhammad Zafar Iqbal Butt	24/11/2018
22	Department of Urdu Encyclopedia of Islam	Dr. Muhammad Arshad (Chief Editor Cum Professor)	28/10/2019
23	Department of History & Pakistan Study	Prof. Dr. Mahboob Hussain	20/01/2020
24	Department of Electrical Engineering	Prof. Dr. Muhammad Azhar Naeem	05/06/2020
25	Department of English Language & Literature	Prof. Dr. Amra Raza	01/10/2017
26	Institute of Punjabi	Prof. Dr. Nabila Rehman	16/08/2017
27	Institute of Information Management	Prof. Dr. Khalid Mahmood	25/05/2018

Principal

Sr #	Department Name	Employee Name	Date of Appointment
1	University College of Pharmacy	Prof. Dr. Khalid Hussain	04/01/2020
2	University Law College	Prof. Dr. Shazia Naureen Qureshi	18/04/2017
3	Hailey College of Commerce	Prof. Dr. Zulfqar Ahmad	19/08/2020
4	Hailey College of Banking & Finance	Prof. Dr. Mubasher Munawar Khan	07/03/2020
5	College of Statistical & Actuarial Sciences	Prof. Dr. Sohail Chand	28/10/2019
6	College of Earth & Environmental Sciences	Prof. Dr. Sajid Rashid Ahmad	03/08/2018
7	University College of Art & Design	Prof. Dr. Shahida Manzoor	08/08/2017
8	University Oriental College	Prof. Dr. Syed Muhammad Qamar Ali	28/10/2019
9	Punjab University College of Information Technology	Prof. Dr. Shahzad Sarwar	09/09/2020

**Incharge**

Sr #	Department Name	Employee Name	Date of Appointment
1	Centre of Applied Molecular Biology	Dr. Aleena Sumrin	21/06/2018
2	Department of Philosophy	Mr. Shahid Mahmood Gul	24/10/2018
3	Institute of Languages	Mr. Ashok Kumar Khatri	14/07/2018
4	Department of Hindi	Miss. Shabnam Riaz	26/04/2019
5	Institute of Administrative Sciences	Dr. Kashif Rathore	08/07/2019
6	Department of French	Dr. Saleha Nazeer	29/01/2010

Director General

Sr #	Department Name	Employee Name	Date of Appointment
1	PUGC, Department of Gujranwala Campus	Prof. Dr. Sayyid Salman Rizavi	10/03/2020

Heads of Administrative Departments

1. Vice-Chancellor	Prof. Dr. Niaz Ahmad Akhtar (08.06.2018 to date)
2. Pro-Vice-Chancellor	Prof. Dr. Muhammad Saleem Mazhar (05.07.2019 to date)
3. Registrar	Dr. Muhammad Khalid Khan (21.10.2019 to date)
4. Treasurer	Vacant
5. Controller of Examinations	Mr. Muhammad Rauf Nawaz (21.10.2019 to date)
6. Chief Librarians	Dr. Muhammad Haroon Usmani (19.10.2017 to date)
7. Chief Medical Officer	Dr. Muhammad Akram Deputy Chief Medical Officer (Additional assignment from 20.05.2019 to date)
8. Chairman, Hall Council	Prof. Dr. Abid Hussain Ch. Chairman, Department of Secondary Education (IER) (Additional assignment from 09.05.2018 to date)



9. Director, Directorate of Student Affairs	(i)	Dr. Asmatullah Department of Zoology (Additional assignment from 18.08.2018 to 09.01.2020)
	(ii)	Prof. Dr. Muhammad Shafique IQTM (Additional assignment from 20.01.2020 to date)
10. Resident Officer-I		Col. (R) Umer Khalid (18.11.2019 to date)
11. Resident Officer-II		Mr. Jaleel Tariq (01.11.2019 to date)
12. Chief Engineer		Vacant
13. Director, P&D Wing		Prof. Dr. Hafiz M. Anwaar Asghar Institute of Chemical Engineering & Technology (Additional assignment from 04.09.2019 to date)
14. Director, Press & Publications		Vacant
15. Director, I.T. Centre		Mr. Imran Qureshi (2018 - 2019)
16. Director, Public Relations		Vacant
17. Director, Directorate of External Linkages		Dr. Sobia Khurram Assistant Professor, Institute of Admin. Sciences (Additional assignment from 05.11.2019 to date)
18. Public Relations Officer		Mr. Khurram Shahzad (19.10.2015 to date)
19. Resident Auditor		Mr. Muhammad Zafar Iqbal Government of the Punjab, Finance Department Town Accounts Officer, TMA, Samnabad Town Lahore. (on deputation from 18.03.2016 to date)



Meetings of Various Bodies of the University

The detail of meetings of various bodies of the University of the Punjab conducted by the Meetings Section, Academic Branch from 1st October, 2019 to 30th September, 2020 is as under:-

Sr. No.	Statutory Body	No. of Meetings	Date
1.	Senate	02	04-06-2020 27-08-2020
2.	Syndicate	06	19-10-2019 04-01-2020 07-03-2020 05-06-2020 01-07-2020 18-08-2020
3.	Academic Council	08	15-10-2019 13-12-2019 30-12-2019 02-03-2020 23-04-2020 24-06-2020 29-07-2020 08-09-2020
4.	Advanced Studies & Research Board	14	03-10-2019 29-10-2019 15-11-2019 02-12-2019 03-12-2019 16-01-2020 06-02-2020 09-04-2020 20-05-2020 21-05-2020 07-07-2020 28-07-2020 20-08-2020 24-09-2020

Meetings of Various Bodies of the University

Selection Boards

25 meetings of the Selection Board were held during the period (1st October 2019 to 30th September 2020). The detail of the appointments is as under:-

Professor	Associate Professor	Assistant Professor	Lecturer	Non-Teaching (BS-17 & above)	Total
63	120	73	16	13	285

14

Chapter

OFFICE OF RESOURCE GENERATION/DEVELOPMENT

- Initiatives and implementation
- Future plans



**CHAPTER****14****Office of Resource Generation/Development****Office of Resource Generation/Development**

Planning & Development wing is responsible for planning, monitoring and controlling of all development projects. This Wing has been flourishing under the directorship of Prof. Dr. Hafiz. M. Anwaar Asghar. This office coordinates with various departments of the University for monitoring and evaluation of all development projects funded by both Federal and Provincial Government. It also collects and compiles Statistical Data related to the University as and when required by the different organs of the Federal & Provincial Government. The progress of the P&D Wing for the year 2019-20 is summarized as below:

In the year 2019-20, the Planning & Development Wing monitored three (3) ongoing federally funded projects as per following details:

Ongoing Projects Funded by the Federal Government (HEC)

Sr.No.	Name of the Projects	Total Cost (Rs. in Million)
1	Strengthening of Academic and Research Programs at University of the Punjab, Lahore.	976.530
2	National Centre for Artificial Intelligence.	1098.387 Capital Cost
3	Establishment of National Center of GIS and Space Application (NCGSA)	965.121 Capital Cost

In the year 2019-20, P&D Wing has submitted proposals to the Higher Education Commission, Islamabad for two (2) new projects to be included in the Public Sector Development Program (PSDP 2020-21) as per following detail

Sr.No.	Name of the Projects	Total Cost (Rs. in Million)
1	Strengthening of Textile Engineering & Research Programs at University of the Punjab, Lahore.	845.879
2	Cancer Research Centre (CRC) at University of the Punjab, Lahore.	899.8497



Following Concept Papers has been submitted for Public Sector Development Program (PSDP) 2021-22

1	i. Cancer Research Centre (CRC) ii. Strengthening of Textile Engineering & Research Program iii. Transformation of Quality Enhancement Cell into the Directorate of Quality Enhancement.
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Assignments/Tasks Accomplished in the Year 2019-20

Sr.No.	Name of Assignments/Tasks
1	Proposal for Transformation of Higher Education Institutions through Smart Classrooms has been submitted to HEC. In this regard, a MOU with HEC has also been signed on 13.05.2020.
2	Collection of Annual Statistical Data for the Academic Year 2019-20.
3	Higher Education Statistics for the Year 2019-20.
4	Data collected for Census of Educational Institutions Academic year 2019-20& submitted to the Bureau of Statistics, Govt. of the Punjab, Lahore.
5	Evaluation Report submitted to the M/O Planning, Development & Special Initiatives for the project titled "Strengthening of School of Biological Sciences, University of the Punjab, Lahore.
6	Report submitted to the Prime Minister's Inspection Commission (PMIC) for the evaluation of project titled "Strengthening of Centre of Excellence in Molecular Biology, University of the Punjab, Lahore.
7	Mapping of Major R&D Equipments/Devices/Machines and Analytical facilities, which are under the use of different departments of the University and report submitted to the DG, PASTIC, Islamabad.
8	Data submitted to the Chief Health-I, P&D Board Govt. of the Punjab, Lahore regarding the courses/research work being carried out in the field of Nutrition in University of the Punjab, Lahore.
9	Preparation of Telephone Directory 2020-21.

Future Plan

1	Preparation of PC-I for Public Sector Development Programme (PSDP) 2021-22.
2	Collection of Annual Statistical data 2020-21.
3	Preparation of budgetary requirements for ongoing PSDP funded Project.

15

Chapter

HEALTH CENTRE & MEDICAL FACILITIES

- Medical Facilities available
- Counseling for Stress Reduction



**CHAPTER****15****Health Centre & Medical Facilities****Health Centre / Medical Facilities**

Punjab University Health Centre is providing medical cover to about 1006 full time and 300 part time teachers, 6650 employees and their families including Boys 4758, Girls 3708 comprising total 8466 resident of students. The University Health Centre is functioning six days a week under the directive of the Worthy Vice-Chancellor in order to provide maximum facilities to the university patients.

Average daily attendance in the outdoor clinic of the University Health Centre is about 300 patients. We are providing general medication to the chronic disease Patients since April 2019. Three Pharmacies namely M/s Medical solution (FDPP), M/s Greens & M/s Health Mart are taken on board. Vouchers are being issued for the purpose of medicine which is not available in stock and the patient directly gets their local purchase medicine from these pharmacies fulfilling the procedure.

A fully equipped Emergency Centre is functioning round the clock. With the establishment of Emergency Centre, the University patients are being provided emergency care within the campus and those patients with critical conditions have to be referred to Sheikh Zyed, Jinnah and PIC hospitals. This year 22,295 patients were referred in the emergency.

At Residential Colony Evening Dispensary has started functioning and is providing medical cover to the residents of the colony from 6:00 p.m. to 9:00 p.m.

This year 172 patients were provided comprehensive Cardiac treatment at Punjab Institute of Cardiology. Similarly, 36 patients were referred to Shaukat Khanum Memorial Cancer Hospital for treatment of Malignant diseases.

The Health Centre is also equipped with Digital X-Ray and latest Ultrasonography machine. Radiology Section attends 15 to 16 patients for patients for X-ray as well as 9 to 11 patients for Ultrasonography per day.

Gynae Unit provides prenatal counseling advice to the patients. It is very helpful in early detection of complications and warning signs of pregnancy and ensuring a healthy pregnancy outcome. Obstetrical out patient's department is also equipped with sonic aid for fetal heart rate monitoring in high risk cases.

Eye Unit of the Health Centre is equipped with latest machines one Ophthalmologist is providing his services to the University patients. Daily 9 to 10 patient come to the eye unit for checkup.



Dermatology (Skin specialist) unit is providing its services in well manner. The students, teachers and employees are getting treatment from here.

Dental Unit of is fully equipped with latest machines One Dentist is providing his services to the patients. Daily 10-12 patients come to the Dental unit for checkup.

Physiotherapy Unit has also been established. Six to eighty patients are being provided physiotherapy treatment every day.

One Senior Medical Officer is deputed at Allama Iqbal Campus (AIC). He provides medical aids to students and employees working in different department at Allama Iqbal Campus. The Chief Medical Officer also visits AIC once a week. 23 to 25 patients get the medical facility on daily basis.

80 to 90 patients including students, employees visit to the laboratory for different tests. After getting admission in the University, 4920 students have visited the Health Centre this year for Hepatitis screening. Out of which 22 students turned out HBS-Ag positive and 65 HCV positive. Eighty-Eight patients (74 employees + 14 students) received treatment for Hepatitis-B and Hepatitis-C from the Health Centre.

At present the Health Centre has two ambulances. This Centre provides transportation facilities to the University patients. These ambulances also take dead bodies to their native towns for funeral ceremonies without any cost.

Shaukat Khanum Memorial Cancer Hospital and Mid-City (Cardex) Centre are already providing diagnostic facilities to the University patients.

After approval of the Syndicate, the P.U Health Centre started to provide medical cover to the 'Parents' residing with the employees and wholly dependent on them.

In addition to this, P.U Health Centre is also going to initiate for the establishment of ICU, Mother & Child Care and Haemo Dialysis Unit under the kind patronage of the higher Authority. In this regard, meetings are also being conducted time to time.

We have also conducted the Dengue awareness session in which lecture was delivered regarding the concerned material and elaborated the precautionary measures. Leaflets and posters were distributed to create awareness among the University population. We are also coordinating with Higher Education Department, Government of the Punjab, about Dengue prevention and we deliver a weekly report about activities conducted by the Dengue Control Team of the Punjab University constituted by the Worthy Vice-Chancellor. Breast Cancer campaign has also been conducted. Data of about 12000/- for drug abuse students have been collected and report sent to the concerned authority.

All the newly appointed teachers and employees reported to the Health Centre for medical checkup. They were examined medically and clinically. After thorough examination they were issued medical fitness certificates.



The Student Counseling & Assessment Service are offered for Punjab University Students. The main objectives of these are to support and guide students having problems in the areas of academics, social or emotional adjustment or any serious psychiatric problem. All University students are eligible to receive counseling services at the SCAS free of cost.

P.U health Centre is striving and putting its efforts pertaining to amelioration of the patients. P.U Health Centre is forming different scenarios to facile the patients in medical examination, pharmaceutical medical examinations, and is amassment of medicines as well. Its prestige is pertaining to its systematic approaches.

Centre for Clinical Psychology

Clinical and Speech Consultation

The Centre for Clinical Psychology provides Clinical and Speech Consultation Services the for Diagnosis and Management of Psychological Disorders for Children and Adults. Clinical Internee (MS & ADCP) see the clients to fulfill their academic requirement under supervision of faculty members.

- **Neuro Developmental Disorders:** Autism, Attention Deficit and Hyperactivity Disorder, Intellectual Disability, Learning Disability etc.
- **Emotional and Behavior Disorders:** Conduct Disorder, Impulse Control Disorder, Opposition Defiant Disorder.
- **Psychological Disorders:** Depression, Anxiety, Schizophrenia, Eating Disorders, Sleep Disorders, Substance Related Disorders, Sexual Disorders, Somatoform Disorders.
- **Counseling Services:** Academic and Career Counseling, Adjustment Issues, Family and Personal Matters, Emotional Issues, Improving Social Behaviors and Thinking Patterns.
- Consultation services of Speech and Language Pathology
- Delayed speech and language including Articulation, Stammering, Voice Disorders etc.

Assessment and Diagnostic Services

The Centre also provides Assessment Facilities which include:

- Diagnostic Testing for Psychological Disorders
- Intelligence Testing
- Aptitude Testing
- Neuropsychological Testing
- Personality Testing

Trauma Centre

Trauma Centre provides immediate and extensive services to those individuals who have experienced any kind of trauma (natural disaster, man-made disasters, and other traumatic events like accidents; loss of loved one etc.) to manage their Post Traumatic Stress Symptoms as well as Post Traumatic Stress Disorder.

16

Chapter

FACILITIES OF THE UNIVERSITY & IMPROVEMENTS



**CHAPTER****16****Facilities of the University & Improvements****Facilities of the University & Improvements****AFFILIATION BRANCH**

Affiliation Branch, University of the Punjab deals with the affairs related to grant of affiliation, extension in affiliation, addition in affiliation, de-affiliation etc of the Public and Private sector colleges for various degrees/disciplines.

The work of Affiliation Branch includes receipt of applications from the colleges (Public or Private), scrutiny of these applications, planning and arrangement of visits of Affiliation Committee to these colleges, preparation of proceeding of visits of Affiliations Committee and then issuance of office orders to the colleges after formal approval by the competent authority.

A brief summary of tasks carried out by the Affiliation Branch during the period 01.10.2019 to 30.09.2020 is outlined in the tabular form below:

Sr. No.	Task	For the year 2019-2020
1	Total colleges visited	314
2	Surprise Visits	10
3	Fresh Affiliation granted	60
4	Fresh affiliation not granted due to deficiencies	05
5	Addition / extension / increase in intake granted	351
6	Addition / extension / increase in intake not granted	05
7	De-affiliation / withdrawal of affiliation / suspension of affiliation	18

OFFICE OF THE CHIEF ENGINEER

S#	Name of Project	Current Status
1	External electrification / installation of new transformer for sport offices and shops at cricket stadium at QAC.	Completed
2	Construction of boundary wall at ias at QAC	Completed
3	Construction of parking shed in front of boys hostel no. 19 at QAC	Completed
4	Construction of car parking for hailey college of commerce at QAC	Completed
5	Laying of sewer line from cricket stadium to near girls hostel no. 1 at QAC	Completed
6	Construction of tuff tile passage road for iba at QAC	Completed
7	Construction of centre passage in department of icet at QAC	Completed



8	Construction of boundary wall at front side of family suits and seminar hall at sir syed khanaspur campus	Completed
9	P/L tuff tile from j-37 house to i-1 house in between gh & j type houses road in colony area at QAC	Completed
10	Remaining work of class rooms, offices & library at first floor of department of space sciences at QAC	Completed
11	PVC insulating dog conductor at hostel area at QAC	Completed
12	UP lifting of façade with blue tile tiles of gate no. 1 at QAC	Completed
13	Replacement of wooden battens top roofs with t-iron structure (phase-i) of khalid bin waleed hall at AIC	Completed
14	Replacement of wooden battens top roofs with t-iron structure (phase-i) of khalid bin waleed hall at AIC	Completed
15	Re-carpeting back side road of chemistry department at QAC	Completed
16	Replacement of wooden battens top roofs with t-iron structure (phase-ii) of khalid bin waleed hall at AIC	Completed
17	Replacement of wooden battens top roofs with t-iron structure (phase-i) of khalid bin waleed hall at AIC	Completed
18	Construction of ablution and basin area for jamia masjid at QAC	Completed
19	Construction of 12 nos i-type flats for employees of institute of education & research at QAC	Completed
20	Construction of the guest room at girls hostel no. 09 at QAC	Completed
21	Construction of entrance with reconstruction foot path area for gate at moulana shaukat ali road at QAC	Completed
22	Construction of boundary wall for gate at moulana shaukat ali road at QAC	Completed
23	Construction of culvet 2' span for gate at moulana shaukat ali road at QAC	Completed
24	Installation of h.t line from gate no 03 to lab school at QAC	Completed
25	Construction of car parking infront of information centre at QAC	Completed
26	Construction of institute of energy and environmental engineering at university of the punjab, QAC	Completed
27	Construction of toilet block at examination halls (wahdat road) at QAC	Completed

CHILD WELFARE CENTRE

Introduction

Special education are specially designed instructions to meet the unique needs of a student with disabilities. It help the students to amuse with the education and gain confidence due to individuals learning style for the personal growth and rehabilitation of students with special needs.

Child Welfare Centre was established in 2003 to train and rehabilitate special children of university employees and its adjacent area. Child Welfare Centre provides the following services to children with special needs to fulfil their unique needs of learning. Skills related to cognitive and adaptive behaviour skills including functional reading, writing, speech and language development, physical and occupational therapy, music and sports etc.



CWC is also unique as it serve professional assistance to the students, scholars of different departments and universities. Guidance and counselling are also provided to the visiting parents of special children and adults for their further rehabilitation.

Academic activities

Intellectual and developmental disabilities are events/conditions occur during the developmental period that includes both intellectual and adaptive functioning deficits in conceptual, social and practical domains.

To cope with all these deficits, Child Welfare Centre (CWC) provides combination of all crucial services, comprised on cognitive, physical and behavioral therapies.

CWC provides individual and group sessions according to the needs of every student with collaboration of multidisciplinary team for a specific period of time. Enhancement in progress is strictly observed through formative and summative evaluation.

During the period of Lock-Down of pandemic Covid-19 w.e.f March 16th 2020 to September 30th, 2020, provision of educational services by the staff of CWC remained was made sure. Teachers were engaged in one to one online interacting sessions of required domain of each student. Video recording of this sessions were uploaded on YouTube Channel of Child Welfare Centre, which was initiated on the direction of Worthy Vice Chancellor Prof. Dr. Niaz Ahmed to guide the masses in this pandemic.

Academic knowledge/activities depict the insight of students with disability and make them able to explore their surroundings. Ultimately this extent of exposure make them independent and useful for society.

Research and Development (Academic Achievement)

Events and Celebrations

International Day of Persons with Disabilities

Child Welfare Centre celebrate International Day of Persons with disabilities on December 3rd 2019 at Dr. Pervez Hassan Environmental Law Centre.

Special Children of Child Welfare Centre show cased their talents to tell the world about their special strengths and to call for efforts to polish and utilize their abilities for making them productive members of the society.

Students of CWC presented a special artistic rendition to expressed the pain, they felt for Kashmiri Children who haven't been able to attend their schools due to Indian forces savage. They also highlighted the grievances of Kashmiri mothers who were losing their young children and living a miserable life.

Eid Milad un Nabi ﷺ

Followers of Islam aim to live a life of complete submission to Allah Subhanahu Wa Ta'ala. Muslims contend that Muhammad (ﷺ) was the last Prophet of Allah. Eid Milad-un-Nabi is the observance of the birthday of Hazrat Muhammad (ﷺ) which is commemorated in Rabi-ul-Awwal.



Child Welfare Centre arranged a Mahfil-e-Milad on November 8th 2019, with full enthusiasm. The basic purpose of holding this event was to educate special children about the teachings of Holy Prophet Muhammad (PBUH) effectively and efficiently. Without the teaching of Muhammad (ﷺ) one could not fully understand the concept of Islam.

Parent Teacher Meeting and Counseling for Stress Reduction regarding Covid-19

During the pandemic of Covid-19 teachers of this centre conducted online parents' teachers meeting on Skype. Focus point of these meeting was educating the parents about the usefulness of online teaching of special children through Skype so that they can engage their special children at home by following the instructions of specially trained teachers.

For this purpose recorded sessions were uploaded on YouTube Channel of CWC named as "Special Education CWC activities". parents were guided to take guidance from these videos according to the needs of their children.

Sports [Related to Sports Departments, Men/Women]

Child Welfare Centre's 17th annual sports day was celebrated on 26th February 2020, in the premises of Child Welfare Centre, Chief Guest of the day was Prof. Dr. Abid Hussain Ch. Dean Faculty of Education, who later on highlighted the importance of sports in life of human beings and appreciated the efforts of all staff members of CWC. The great event evoked the children with Intellectual disabilities (CWID's) potential and great interest in sports activities Dr. Humara Bano Chairperson DSE, Dr. Ruksana, Dr. Hina Fazal (Assistant Professors DSE) and Mr. Anis-ur-Rehman chairman Special Olympics Punjab (SOP) were the special guests at this event. Students were awarded medals according to their winning positions at the end of sports activities. All guests, students, CWC staff member and parents "joined the circle" to symbolize the collective efforts in future for the participation of CWID's in such activities.

Twenty seven students from Child Welfare Centre had participated in Lums Games 2020. These games were organized by Special Olympics Punjab on dated 15-02-2020. Special children of CWC won the following medals in 50 meter Race:

Gold: 02 Silver: 04 Bronze: 01 Ribbon: 03

In the second event of Bocce students of this centre won the 2nd position and won silver medals.

Students of child Welfare Centre also participated in training camps organized by Special Olympics Punjab for the development of different skills in such children. these training camps were continued for one month. Details of these camps was as under:

Date	Campus	Age ranges	Ability developmental	No. of students who participated
Oct. 3 rd , 2019	Athletes	13 and above	Hockey training skills	10 students
Oct. 21 st , 2019	Young Athletes	2 to 10	Foot Ball, Basketball, Athletics, Badminton, Bocce Skills	14 students
Oct. 24 th , 2019	Young Athletes	2 to 10	25 meter Race, Bocce, Football skills, Basketball skills	17 students
Oct. 28 th , 2019	Young Athletes and Adults	2 to 10, 11 and above	Football, Bocce, Tennis, Hockey skills	3 students



At the end of these training camps special Olympics organized a final competition of young athletics on Nov. 27, 2019. Students of CWC had won the following medals in “50 meter race”.

Gold: 03 Silver: 03 Bronze: 01

In Bocce “Young Athletics” competitions students of CWC won 3rd, 4th and 5th positions.

CAREER COUNSELING & PLACEMENT CENTRE

Introduction

Career Counseling & Placement Centre was the idea of Dr. Abdul Qayyum Ch. which was established & materialized by the Authorities of the University of the Punjab in 2003, the major purpose to establish this center was to provide Career Counseling & Placement services to the students, employees and teachers of the University of the Punjab regarding their personal, professional and career development. Keeping in view the ever evolving knowledge and cutting edge technologies, it has become the primary aim of this Centre to bridge the Gulf between Job Market and various academic departments/institutes through joint sessions and collaborative networking. We are providing trainings to our University Students regarding life skills and employability skills i.e. how to prepare for powered CV, Interview Skills, Self-Motivation and positive thinking, Creative Thinking, Self-esteem, Decision Making, Learning Attitude, Stress Management, Effective Verbal & Non-Verbal Communication, Interpersonal Communication Skills and job hunting strategies etc. In March 2009 the present Director of this Centre Prof. Dr. Abdul Qayyum Ch. again took over the charge of Career Counseling & Placement Centre, and revitalized its services since then the center has developed more than 295 Linkages / Recruitment Partnerships with different leading Organizations/ Companies/ Banks and Industries for Job placement of our graduates. Career Counseling & Placement Centre is working quite in line with the vision plan of current National Education Policy & HEC’s guidelines to provide career counseling and placement services to the University Graduates. We have been continuously imparting employability skills and also helping in career counseling and job Placement to our potential graduates. Thousands of our graduates have been facilitated for various Jobs through this Centre as well as e-mail. We are also continuously offering trainings / seminars to graduates regarding job market, employability skills with the help of highly professional entrepreneurs, CEOs and business managers through joint sessions. We have been continuously conducting online sessions since July, 2020 and collaboration through e-mail. Face to face seminars as well as sessions are not allowed due to covid-19 so that we provide our services through online sessions. We are also conducting one –to- one session with our student(s) regarding selection of career path, career choices, career development according to their aptitude and attitude which ultimately lead them to become productive citizens of Pakistan.

Types of Services

Orientation and guidance services for new entrants to acquaint them to the University life.

- Educational and Occupational Information Services



- Counseling and Advisory Services may include personal, social emotional and financial problems.
- Services to International Students.
- Image Building of the University
- Job Bank
- CV bank of PU students
- Follow-up Services
- Revitalizes the Alumni

Industrial Liaison

We have develop liaison with more than 295 Companies / Industry

Individual Counseling in 2020

As Per Office Record, The office has provided Career Counseling related Service to 565 Students. Who visited our office.

Our Trainings in 2019-2020

The Primary Objective of the Centre is to bridge the Gulf between job markets and various academic Departments through joint sessions and collaborative networking. We are providing soft skills training Session / Workshop to our graduates.

Following Training Sessions have been conducted in year 2019-20

How to get benefit from Campus life with Pushtoon and Balochi Students

- The Role of Motivation & Positive Thinking in Life
- Panel Discussion with Vice Chancellors On Tolerance of Youth
- Adjustment to Campus Life
- Moral Value in Our Education System
- Adjustment to Campus Life
- Workplace Conflict Management
- Motivation & Positive Thinking
- Decision Making
- Effective Time Management
- Interpersonal Communication Skills
- Interview Skills and CV Writing
- How to Write a Powered CV & Cover Letter
- Creative Thinking
- Stress Management
- Recruitment Drive by FFC



List of tasks/Assignments completed during the Year

Workshops/Training Sessions were conducted in the various departments of the University of the Punjab on the following topics

Sr. No.	Department	Topic	Date
1	Department of Statistic & Actuarial Sciences	Effective Time Management	09 th Oct 2019
2	Department of Library Sciences	Interview Skills	24th Oct 2019
3	Institute of Education & Research	The Role of Motivation & Positive Thinking in Life	13th Nov 2019
4	Institute of Education & Research	A Session Conducted by Amjad Saddique Awarded On in Million	18th Nov 2019
5	Department of Applied Psychology	How to Adjustment to Campus Life	How to Adjustment to Campus Life
6	Department of Botany	Effective Time Management	04th Dec 2019
7	Institute of Education & Research	Institute of Education & Research	Institute of Education & Research
8	Al Razi Hall Under Graduate	Panel Discussion with Vice Chancellor On Tolerance of Youthwith Collaboration of CEES	26th Dec 2019
9	Department of Statistic & Actuarial Science	CV Writing	31th Dec 2019
10	Institute of Education & Research	Moral Value in Our Education System	03 rd Jan 2020
11	Waheed Shahed Hall IER	How to get Benefit from Campus Life with Pushtoon and Balochi Students	17th Jan 2020
12	Institute of Education & Research	Interview Skills	23rd Jan 2020
13	Department of Geology	How to Adjustment to Campus Life	29th Jan 2020
14	B.Ed. Hons & BS Ed Hons	How an Overlooked Risk Factor (Poor Posture) Challengers and Individual's Performance at All Levels & Its Management and Implications for Teachers and Students	06th Feb 2020
15	MA Elementary and Early Childhood	How an Overlooked Risk Factor (Poor Posture) Challengers and Individual's Performance at All Levels & Its Management and Implications for Teachers and Students	17th Feb 2020



16	MA Secondary, Business Education, Technical Education	How an Overlooked Risk Factor (Poor Posture) Challenges and Individual's Performance at All Levels & Its Management and Implications for Teachers and Students	25 th Feb 2020
17	MA Elementary Self Supporting	Moral Value in Our Education System	26 th Aug 2020 (online)
18	Institute of Chemical Engineering & Technology	Interview Skills & CV Writing	03 rd Sep 2020 (online)
19	Institute Chemistry / Chemical	Interview Skills & CV Writing	16th Sep 2020 (online)
20	Institute of Chemical Engineering & Technology	Collaboration with Fuji Fertilizer hiring for Jobs	28 th Sep 2020 (online)

Training workshop for the focal persons in various departments of University of the Punjab.

- The task of preparing list of potential employers, updating the data of alumni & the CV folder of the passing out graduates was assigned to focal persons. The lists were updated in the data bank of CC&PC
- Career Counseling & Placement Centre arranged a recruitment drive in collaboration with Fauji Fertilizer Company at University of the Punjab.
- Individual and Group counseling of the students was conducted regarding the academic issues,
- Adjustment problems, Emotional issues and any other issues raised by the students.
- Contacts were established between Academia/Industry to explore and secure job/ Internship opportunities for our graduates.
- To locate and upload various types of jobs for the graduates of the university of the Punjab on the Facebook page of Career Counseling and Placement center. Besides, job requests received from various organizations/industry through emails are monitored, uploaded, and forwarded to concerned departments for action.
- Students of PU visit career counseling office for mentoring, guidance and also to seek solutions to their questions regarding personal and academic life.
- Visitor's queries are also met to their satisfaction to build and promote the positive image of this prestigious university.
- Representative of different organizations make personal visit to explore opportunities for the employment of PU graduates
- Information/guidance is also provided to the students /outsiders regarding admission queries etc.
- Uploading of Job on Career Counseling & Placement Center on Facebook Page
- Individual Counseling as per on Record Career Counseling Service to 565 Students Career in our office



DEPARTMENT OF EXAMINATION

The Department of Examinations conducts more than 305 examinations every year in which about 0.5 million students appear under Annual System and Semester System. The Department has state of the art Examination Management System to cater the candidate's needs. The Department is playing its vital role in generating financial resources through its quality services to the Regular Students as well as private students. The detail of achievement is as under:-

Controller's Personal Section

The nature of work of this section is quite sensitive and multi-dimensional. 22,728 & 25,156 letters, complaints were entered in the Diary Register and were disposed off accordingly. E-mail accounts were handled. Arrangement of Monitoring of Examination Centers of B.A/B.Sc., M.A/M.Sc., Commerce and Law etc. were made. Monitoring team of University Teachers were constituted and daily visit program of Examination Centers for those were prepared/checked out. Advances for fuel and toll tax etc. for monitoring cars were drawn and their adjustments deposited. Bills of monitoring teams were also processed in this section. Inquiries were dealt through telephonic calls, fax machine and also through open door policy. Schedules of meeting were announced. Thousands of degrees and other necessary documents were signed by the controller of Examinations and Additional Controller of Examinations as well. Daily dak and public inquiries relating to exams, results and degrees problems are also dealt within the personal section. 410 Ph.D. thesis were received and 700 Thesis were sent for evaluation. 70 letters and reminders were dispatched to M.S., M.D. & M.D.S. thesis examinations. 24023 & 261578 degrees were signed by the Controller of Examinations, 215 thesis were sent to HEC for record. 883 remuneration bills of Ph.D thesis examination evaluation were processed. 289 students notified for Ph.D. Degree.

General Section & Server Room

This section dealt lot of matters related to staff working under Controller of Examinations i.e. processing of all type of leave cases, joining reports, reliving reports, processing of bills of staff and vendors, matters of Convocations, arrangements of local purchase committee meeting, Receiving of all kinds of stationary items from the main store at various times this practice repeated and got received by the sections concerned, other materials which are purchased from the local market through vendors are kept reserved many times to maintain enough stocks for emergency use. Preparation of all kinds of reports as and when required, all matters relating to engineering branch, receiving of blank result cards from the Press after roper counting by the deputed person.

In short, this section provides technical and non-technical support to all the sections working under Controller of Examinations. 115 Nos. of cameras were installed not only to strengthen security aspect but also monitoring of critical section is enhanced.



Furthermore troubleshooting of equipments, 1700 to 1900 queries were dealt as of installation of windows, software and hardware. The vendors were contacted in time for claiming warranties and repair. Five R740 Servers tender was published for purchase to improve network infrastructure of department. Firewall was installed to secure the examinations department data. Work is under process to make online form submission active.

BA/B.Sc annual 2020 Part-II online exams were conducted successfully. For this purpose, setup was installed and configured using MOODLE for commencement of activity.

Conduct Branch

Conduct Branch of Department of Examinations is assigned with the major task of carrying out all those steps which are involved in the conduct of any exam, local or abroad. It starts the process of any exam from the scratch and works earnestly until the exam is terminated successfully. The Conduct Branch has to make arrangements for the conduct of more than 705 Exams (Theory + Practical) in a year. The degree wise working of the Branch is being summarized as under:-

Sr#	Period	Theory Exams	Practical Exams	Written Centres	Practical Centres	Q/Paper Packets	DI's	RI's	Supts.	Adl. Supts.	Invig.	Ans. Books Theory	Ans. Books Practical	Foreign Exams
1	01 st October 2019 to 30 th September 2020	399	198	1367	198	1594	242	514	1367	1367	3550	611300	82000	108

Secrecy Branch

B.A./B.SC. Script Section

B.A. / B.Sc. script section arranged the following exams: -

B.A. / B.Sc. Supplementary 2019

Part-I : 102-Local Centers/Mufassil Centers

Part-II : 98-LocalCenters/Mufassil/Centers

M.A./M.SC. Section

This section dealt with the commencement and declaration of result of M.A. / M.Sc., M.Com, M.B.A., and M.Ed., Supplementary Examination, 2019, Annual Examination, 2020. Total candidates appeared for the year 2019-2020 are 99831. The declaration of results of M.A. / M.Sc., Part-II is in progress.

Professional Section

About 30 Semester Examinations of different diplomas, certificates, etc., in the fields of Medical, Engineering, Commerce, Home Economics, Pharmacy, B.S. 4 Years Program, M. Com, M.B.A. etc. were held during 1stOctober 2019 to September 2020. In addition to these and their results have been declared. Scripts were received from examination centers, processed and were



dispatched to examiners for marking. Marked scripts were kept in the section. About 925 R.L. and R.F.C. cases and 90 different other cases pertaining to above mentioned examinations and about 400 Re-checking cases were settled during this period.

B.Com / Law & Professional Annual Scripts Section

It is pointed out that central marking of B.Com. Part-I and B.Com. Part-II Supplementary 2019& B.Com. Part-II Annual Examination 2020 was conducted in the New Building of Admin Block, University of the Punjab, Lahore. The results of B. Com Part-I and Part-II Supplementary Examination 2019 and B. Com Part - II Annual Examination 2020 have been declared well in time. Central marking of LLB Part-I, II&III Supplementary

Examination 2019 B.B.A, PHARM-D, B.S. App. Geology and B.S.C.S. was conducted in the new building of Admin Block, University of the Punjab, Lahore. B.Com Part-I supplementary 2019, 07 R.L. Cases R.F.C 587&21 Re-checking cases. B.Com Part-II Supplementary 2019 04 R.L. Cases R.F.C. 3698&74 Re-checking cases.

LLB Part-I, II & III Supplementary 2019, 11 R.L. Cases R.F.C. 314& 89 Re-checking cases. B. Com Part I Annual 2020. B.B.A, PHARM-D, B.S Applied Geology, B.S.C.S and Medical Diplomas, Annual System, 2020. 13 R.L Cases R.F.C 3018 & 123 Re-checking cases. LLB Part I, II, & III and LL.B. 5-year Annual 2019 31 RL. Cases R.F.C 1717 & 220 Re-checking cases.

Dispatch and Receipt Section

During the above-mentioned period, the Diary & Dispatch Section received and dispatched bundles of different exams and received the counterfoils of all exams. The details are as under:

Received Bundles from Local and Mofussil Centers.

B.A. / B.Sc. 2000-Bundles

M.A./ M.Sc., B. Com, B.S., D-Pharm, Home Eco., B.S.Ed. 7500-Bundles & all Professional

Dispatch packets to the Examiners in different exams.

29500-Packets/Bundles

Re-Checking Section

Detail of Re-checking cases received and processed is given below: -

B.A./B.Sc. cases:	211
M.A./M.Sc. & Professional	650
Total:	861

Note: All the cases have been disposed of.

Secrecy Section II- & III

This section deals with the most sensitive and confidential nature of work of the Department of Examinations, University of the Punjab. The examiners are provided by the Conveners of various subjects or disciplines. The lists of examiners and paper setters got approved from



Worthy Vice-Chancellor before sending appointment letters to examiners concerned. The appointments of Paper Setters, Head, Sub and Practical Examiners for all the theory and practical examinations local and abroad are made by this section. Substitutes are also sought from the conveners in case of refusal from the examiners or paper setters of any discipline. The question papers of all the examinations got set from the paper setters for written and practical examinations in local and abroad as well. Thereafter, preparation of remuneration, T.A. / D.A. and contingent bills of paper setters/examiners are sent to the Accounts Branch duly recommended by the Controller of Examinations for payment to the examiners. Central marking of following examinations was also dealt i.e. M.B.A. B.B.A. B. ComPart-I, II LL.B. LL. B (03 Years) Part-I, II, III, LL.B. (05 Years) Part-I, II, III. During the period 1st October, 2019 to September 2020, approximately 25000 examiners and 7000 paper setters were appointed to fulfill 357 examinations.

Anti Unfairmeans Section

Total 3074 unfair means cases were registered and resolved, the detail is as under: -

- B.A. / B.Sc. 225
- M.A. / M.Sc. 92
- All Professional Exams. 44

External & Computer Degree Section

Section 1

All Manual B.A/B.Sc, All Semester System Verifications, Degrees & DMC's

	No of Verifications	No of Verifications	Deptt. Verification	Bar Association	
Verifications	V1	PV1	R	PBV	Total
Total Cases	855	344	2580	207	3986
Issued Cases	849	331	2564	202	3946
Degrees	F1	PF1	A1	PA1	Total
Total Cases	1019	113	751	195	2078
Issued Cases	978	106	730	183	1997

Section 2

All Manual M.A/M.Sc, B.Com, LLB, B.Ed, MBBS All Professional Exams Verifications and Degrees

Verifications	V2	PV2	R	PBV	Total
Total Cases	408	344	1292	937	2981
Issued Cases	404	331	1260	527	2522
Degrees	F2	PF2	A2	PA2	Total
Total Cases	266	96	637	195	1194
Issued Cases	249	87	622	183	1141



Section 3

All Computerized B.A/B.Sc, M.A/M.Sc, B.Com, LLB, B.Ed, MBBS and Professional Exams Verifications and Degrees

Verifications	V3	PV3	R	PBV	Total
Total Cases	2840	2930	10251	6604	22625
Issued Cases	2835	2925	10222	6601	22583
Degrees	F3	PF3	A3	PA3	Total
Total Cases	8454	4773	1586	1204	16017
Issued Cases	8401	4758	1579	1196	15934

Computer Degree Section

Sr No	Detail	No. of Degrees
1.	B.A (Small Degree)	10122
2.	B.Sc (Small Degree)	8675
3.	M.A (Small Degree)	18884
4.	M.Sc (Small Degree)	4046
5.	B.Com (Small Degree)	9966
6.	L.L.B ((Small Degree)	2374
7.	Manual/Professional Degrees (Old Pattern)	18664
8.	D.M.C & Merit Certificates	1328
	Total Degrees	74059

B.A/B.Sc Computer / B.A/B.Sc Hall

This section dealt with the commencement & declaration of results of B.A/B.Sc Supplementary Examination 2019, Annual Examination 2020.

Session	Appeared Candidates in Examination		Total
	Part-I	Part-II	
S/2019	25691	26047	51738
A/2020	108438	86071	194509
Total	134129	112118	246247
Total Appeared Candidates	246247		

Total Candidates appeared for the supplementary 2019 are 51738. The declarations of result of supplementary 2019 were made within stipulated time successfully.

Total candidates applied for Annual 2020 are 194509. The conduction of exams was postponed due to pandemic COVID-19. However, this branch conducted the Part-II exam online. As soon as the lockdown lifted, this office will resume the pending exams.

B.A/B.Sc Section (Computer Inquiry)

This Section dealt with the complaints of the candidates relating B.A/B.Sc. Examinations total 4721 cases of B.A/B.Sc. Part-I & part-II were received and processed.



B.Com/LL.B Hall & B.Com/LL.B Computer Section

The result of LL.B Part-I, II, III (03 Years) and LL.B Part-I, II, III (05 Years) Supplementary Examinations 2019 were held in December 2019 and declared in March 2019. Result cards were dispatched accordingly. RL cases were resolved within short period of time.

The LL.B Part-I, II, III, (03 Years) and LL.B Part-I, II, III, IV, (05 Years) Annual Examinations 2020 held in September/October 2020 and result under process for declaration.

The B.Com Part-I, II, 2nd Annual Examinations 2019 held in November 2019 and declared in January 2020. Result cards were dispatched accordingly. RL cases were resolved within short period of time.

The B.Com Part-II Annual Examinations 2020 held in September/October 2020 and result under process for declaration.

The number of candidates appearing in LL.B Part-I, II, III (03 Years) and LL.B Part-I, II, III, IV, (05 Year) B.Com Part-I, Part-II, are as follows:

LL.B (03 Year Programme)		LL.B (05 Year Programme)		For B.Com	
LL.B Part-I	13410	LL.B Part-I	14376	B.Com Part-I	8111
LL.B Part-II	26722	LL.B Part-II	21077	B.Com Part-II	26961
LL.B Part-III	37899	LL.B Part-III	3421		
		LL.B Part-IV	41548		

M.A / M.Sc. (Computer Section / Tabulation Section)

This section dealt with the commencement & declaration of result of M.A/M.Sc, M.Com & M.B.A Supplementary Examinations, 2019, annual examination, 2020.

Exam Name	Total Candidates per Session	
	Supplementary 2019	Annual 2020
M.A/M.Sc. (P-I)	8892	34555
M.A/M.Sc. (P-II)	9345	44379
M.Ed. Gen and Science	27
M.Ed. Visual Impairment	1
M.Com (P-I)	471	876
M.Com (P-II)	447	642
M.Com (P-III)	1
M.Com (P-IV)	1
M.B.A (P-II)	25	3
M.B.A (P-III)	66	14
M.B.A (P-IV)	86
Total Candidates	99831	

Total candidates appeared for the Year (2019-2020) are 99831. The declaration of results of M.A/M.Sc, M.Ed., M.Com and M.B.A Supplementary Examinations, 2019 along with the conduct of Annual Examinations, 2020 were made within stipulated time successfully.

**Inquiry Section M.A/M.Sc and Main Diary**

This Section dealt with the inquiries of the candidates relating M.A/M.Sc. M.Com & M.B.A Examination, total 3165 cases were received and processed.

Form Section

This section deals with the work relating to the printing, issuing and processing of the Admission Forms of all the examinations, which are conducted by the University.

This section performed following work pertaining to the Admission Forms during the period 2019-20.

- 50,000 Admission forms of various examinations were got prepared by the University Press.
- Admission forms were handed over to the college concerned, according to their demands.
- Admission forms of different examinations were issued to the candidates by hand free of cost.
- About 550,000 admissions forms/hard copies of admission forms of different examinations were received from the candidates individually, by hand, by post and from the colleges.
- After checking, the admissions forms were entered in the relevant registers to maintain proper record and thereafter arranged category-wise.
- After having affixed serial number on admission forms of each examination, these were delivered to the Sections Concerned/Computer Section according to the Schedule.
- Incomplete admission forms of the candidates of each examination which were received by post were rejected and returned to them under registered post.
- The admission forms which were received after due date, being time barred, were rejected and returned to the candidates by registered post and proper record was maintained.

Litigation Cell

This Section dealt with 81 Writ Petitions/Appeals/Civil Suits/Civil Appeals/Civil Org/I.C.A. & C.P.L.A., which were filed against the University of the Punjab and were defended in the Civil District Courts/High Courts/Supreme Courts of Pakistan during the period from 1-10-19 to 30-10-20. 43 Writ Petitions have been decided and the remaining are still pending in the above-mentioned Courts of Law. Similarly, 31 complaints were received from the office of the

Provincial Ombudsman out of which 27 cases have been decided and the decisions of remaining complaints are still awaited from the Provincial Ombudsman.

Awards Section

The Awards Section of the Examinations Department deals with the important and confidential work relating to the processing of Award Lists of all the Examinations, which are being conducted by the Punjab University.



In 2019-20 the sealed envelopes containing total No. 12322 Award Lists were received from the examiners of the various Examinations. These Awards Lists were checked/entered and delivered to the section In-charges of the Computerized and manual Result Sections for compilation of results.

Moreover, letter and reminders were sent to the Examiners concerned who did not send the Award Lists in time and discrepancies were also got removed from the Examiners concerned by getting themselves informed through letters/reminders and by telephonic conversation as well. The result Positions of all the Examinations were prepared for submitting to the authorities as and when required. Thus, all results were declared in time

Professional Exams

With reference subject cited above the result of BBA (Hons) (4 Year Programme) Part-I, II, III, IV Annual Examinations 2019 were held in October/November 2019 and declared in December 2019. Result cards were dispatched accordingly. RL cases were resolved within short period of time.

The BBA (Hons) (4 Year Programme) Part-I, II, III, IV, Supplementary Examinations 2019 were held in September 2020 and declared in October 2020. Result cards were dispatched accordingly. RL cases were resolved within short period of time.

The BS. APP. GEO (4 Year Programme) Part-I, II, III, IV Supplementary Examinations 2019 were held in January/February 2020 and declared in July 2020. Result cards were dispatched accordingly. RL cases were resolved within short period of time.

The BS. APP. GEO (4 Year Programme) Part-I, II, III, IV Annual Examinations 2020 were held in September/October 2020 and result under process. The BS (Computer Science) (4 Year Programme) Part-I, II, III, IV

Annual Examinations 2019 were held in October 2019 and declared in December 2019. Result cards were dispatched accordingly. RL cases were resolved within short period of time.

The BS (Computer Science) (4 Year Programme) Part-I, II, III, IV Supplementary Examinations 2019 were held in February/March 2020 and declared in October 2020. Result cards were dispatched accordingly. RL cases were resolved within short period of time.

The B.S. Home Eco Supplementary Examinations 2019 were held in November 2019 and declared in January 2020. Result cards were dispatched accordingly. RL cases were resolved within short period of time.

The PHARMD (5 Year Programme) Supplementary Examinations 2019 were held in February/March 2020 and declared in September 2020. Result cards were dispatched accordingly. RL cases were resolved within short period of time.

The BSC MLT (4 Year Programme) Annual Examinations 2019 were held in February/March 2020 and declared in November 2020. Result cards were dispatched accordingly. RL cases were resolved within short period of time.



The BSANT, BSCPT, BSDNT, BSMIT, BSOPT, BSOTT, BSDPT, BSMLT Annual Examinations 2019 were held in February/March 2020 and declared in November 2020. Result cards were dispatched accordingly. RL cases were resolved within short period of time.

The number of candidates appearing in Annual & 2nd Annual Examinations for BBA (Hons), BS. APP.GEO, BS, (Computer Science), B.S. Home Eco, PHARMD, BSC MLT, BSANT, BSCPT, BSDNT, BSMIT, BSOPT, BSOTT, BSDPT, BSMLT Programme are as follows.

<u>BBA (HONS) (4 Year Programme)</u>		<u>BS APP. GEO (4 Year Programme)</u>	
BBAHONS Part-I	334	BS-APG 1st Prof.	078
BBAHONS Part -II	218	BS-APG 2 nd Prof.	036
BBAHONS Part -III	125	BS-APG 3 rd Prof.	123
BBAHONS Part -IV	133	BS-APG 4 th Prof.	080
<u>BS (Computer Science) (4 Year Programme)</u>		<u>B.S. Home Eco (6 Year Programme)</u>	
BSCS Part-I	270	BSHECO Part-I (1 st Year)	150
BSCS Part-II	255	BSHECO Part-II (2 nd Year)	116
BSCS Part-III	162	BSHECO Part-II (1 st Year)	096
BSCS Part-IV	135	BSHECO Part-II (2 nd Year)	132
		BSHECO Part-II (3 rd Year)	065
		BSHECO Part-II (4 th Year)	060
<u>PHARMD (5 Year Programme)</u>		<u>BSC MLT (4 Year Programme)</u>	
PHARMD 1 st Prof	177	BSCMLT-I	01
PHARMD 2 nd Prof	137	BSCMLT-II	85
PHARMD 3 rd Prof	234		
PHARMD 4 th Prof	102		
PHARMD 5 th Prof	072		
<u>Medical Lab Technology</u>		<u>Medical Lab Technology</u>	
BSANT 2 nd Prof	08	BSMLT 2 nd Prof	09
BSCPT 2 nd Prof	08	BSOPT 2 nd Prof	09
BSDNT 2 nd Prof	06	BSOTT 2 nd Prof	08
BSMIT 2 nd Prof	09	DPT 2 nd Prof	14

BS Computer Section

This section dealt with the results of semester system examinations. During the stipulated period 2019-2020, different examinations were conducted for 39106 candidates.

Total 33 results were declared, 37040 out of 39106 candidates were declared pass.

Professional Hall

In 86 result notifications of Undergraduate programs, total 5156 candidates appeared, in 73 result notifications of Master degree program, total 2933 candidates were appeared & in 74 result notifications of MS/M.Phil. programs total 2248 candidates were appeared during subject period.



DEPARTMENT OF PRESS AND PUBLICATIONS

Academic Achievements

Several workshops were arranged for the students of College of Arts & Design for their practical requirements and knowledge regarding Pre-press, Printing material & Graphic Arts.

R&D-An Overview

The Department of Press & Publications is striving to provide quality printing and publication services to the University of the Punjab at subsidized rates. However, due to this cost reduction in Press services the workload of the Department of Press & Publications has increased considerably. All types of printing material concerning the Secrecy & Conduct Branch like Answer Books, Continuation Sheets, Practical Answer Books for (B.A./B.Sc., M.A./M.Sc.) exams, different Admission Forms, syllabus and material about professional examinations were printed here. The most important task of Press is the printing of examination materials for conducting the exams well in time and providing all the regarding materials for about 300,000 students. The Department of Press & Publications has also been assigned the printing of confidential document i.e. Degrees, Certificates, Result Cards, Result Sheets and Registers of various kinds.

Publications/ Printings

The Department of Press & Publications has under taken the jobs during the year October 2019 to September 2020 are as following.

Sr.	Departments	Description	Quantity
1.	Controller of Examinations, Jehlum Campus, Earth & Environmental Sciences, Department of Economics, Hailey College of Commerce, ICET, College of Engineering & Emerging Tech, Jehlum Campus, Micro biology & Molecular Genetics, , Sheikh Zayed Islamic Centre, Gujranwala Campus, Department of Physics, Political Science, Department of Phelosophy, Department of Information Management, Institute of Islamic Studies, Department of Special Education, HCBF, Department of Zoology, ICS	Answer Books	4,40,000
2.	College of Earth & Environmental Sciences, Department of Solid State Physics, Department of Mathematics, Institute of Undergraduate Studies, Institute of Bio Chemistry & Bio Technology, Institute of Education Research, Faculty of Engineering & Technology, Centre for High Energy Physics, Institute of Business Administration, Law College	Extra Sheets	1,75,000
3.	Vice Chancellor Office, Controller of Examinations, Deputy Registrar (Acad), BBH Degree New Pattern, Degree of Law	Degree/ Diploma/ Certificates/ Transcripts	23,751
4.	Controller of Examinations	Result Cards	5,000
5.	Controller of Examinations, Treasurer Office, Registrar office & Ghazi Group, Govt Tech. Institute Town ship	Admission Forms/All types of forms	1,15,500
6.	Deputy Registrar (Acad), Chairman Admission Committee, C/o KA Somro	Title/ Agenda	1,747
7.	Department of Political Science	Prospectuses	500



8.	All Teaching & Non-teaching Staff of Punjab University	Visiting Cards	8,250
9.	Department of Economics, Centre for South Asian Studies, Department of Punjabi, Faculty of Oriental learning	Research Journals	12,065
10.	Vice Chancellor Office, C/o Dr. Ahmad Bilal, Department of Urdu, C/o Dr. Aurangzaib, Govt. Vocational Institute Sheikhpura, HCBF, Oriental college, C/o Mian Faqeer Ali Pakistan Study Centre	Books	36,20
11.	Controller of Examinations, Registrar Office, Institute of Communication Studies, Jehlum Campus, Faculty of Economics & various department	Envelopes	39,100
12.	Academic Staff Association, External Linkages	News Letters	2,500
13.	Registrar Office, Chief Medical Officer, Govt. Vocational Institute Sheikhpura,	Posters, Stickers & Hall map	8,600
14.	Department of Philosophy, CIMR, C/o MA Shah, Govt. Tech Instt. Township, Govt. Tech. Training Institute, C/o JM, C/o Nasir Rehmat, Artist Association Punjab, Techer Alliance, Teacher Front, Helath Centre, History & Pak Studies, Islamic Studies & TEVTA	Brochures, Pamphlet & booklet	28,900
15.	Vice Chancellor Office, Registrar Office	Speeches	3,200
16.	Registrar Office, Institute of Education & Research	Registration Cards, Class Cards	53,000
17.	University Health Centre, Vice Chancellor Office, Treasurer Office, Registrar Office Employees Housing Society, Department of Statistical & Actuarial Sciences	Slips, Ballot Paper	1,36,670
18.	Chief Medical Officer	Reg. Tags, Security stickers	1250
19.	Controller of Examinations, Treasurer Office, Resident Officer I Office, Chief Medical Officer	Registers for various kinds	87
20.	Vice Chancellor Office, Registrar Office, Chief Medical Officer, Controller of Examination, Applied Molecular Biology, Oriental College, Department of Persian, Department of Philosophy, University of Home Economics, Hailey College of Commerce, Faculty of Eng. IBIT, C/o Superintendent Press, Faculty of Economics, Biochemistry & Biotechnology, Deptt. Of Physics, Pharmacy, Energy & Environmental Eng. Botany, Health Centre Earth & Environmental Sciences Urdu, Economics & IQTM.	Letter Pads	6,34000
21.	Treasurer Office, RO-I, Jehlum Campus, IBIT, PUEHS, Economics, TEVTA, C/o Ilyas	Files Covers	19,100
22.	Registrar Office. Coal Technology	Convocation Items	2200
23.	Controller of Examinations, Skill Development Centre, Earth & Environmental Sciences	Certificates	3,250
24.	C/o Registrar, C/o Taqi Zahid Butt, C/o Shahid Gull, C/o Saful Rehman, RO-I, CMO, DRA – Acad, Hall Council, HCC, Philosophy	Wedding Card, Bus Pass, Medical Cards, Book Pockets & DRA Acad. Cards Students Cards	25,045



25.	Vice Chancellor Office,	Executive Diaries, Day Planner, Bags message pads	4100
26.	Controller of Examinations, Registrar Office, ASA, Zoology, Officer Association, Economics, C/o Fozia Tabasum, HCC, Sports Club, University of Sports League, Sports for Women, C/o Ghazi Group	Invitation Cards	7050
27.	Vice Chancellor Office, Officer Association	Table calendar, Ramzan Calendar	5750
28.	Treasurer Office	Budget copies	500
29.	Oriental College	Magazine	325
30.	School Biological Sciences, Agricultural Sciences, Clinical Psychology	Abstracts	1250

Our Mission is to disseminate knowledge and creative work in all of its forms through scientific and intellectual publishing at affordable price.

DEPARTMENT OF MOSQUES

The Department of Mosques, Punjab University comprises eight (08) mosques (Six are situated in the Quaid-e-Azam (New) Campus & two are in the Allama Iqbal (Old) Campus), an Institute of Hifz-e-Quran adjacent to Jamia Mosque, an Institute of Nazira attached to E-Block mosque and a Library. All teaching, administrative and other official matters of all mosques, institutes of Hifz-e-Quran, Nazira and Library are controlled through the main office attached to Jamia Mosque, New Campus.

Six qualified and experienced teachers have been appointed to teach the admitted students in the Institute of Hifz-e-Quran. Regular classes are being conducted from Monday to Saturday in specific hours. To facilitate the admitted students, additional classes are also held after Maghrib prayer which is helping to enhance the religious academic capability of students. Moreover, students belonging to various departments of the university also attend these classes to learn and improve their reading ability of Holy Quran.

Following Nine students of the Institute completed Hifz-e-Quran.

1	Kashsif Ali	6	Ahmad Bin Kashif
2	Hamza Ijaz	7	Ahmad Bilal
3	Muhammad Bilal	8	Abdul Rehman Shahiad
4	Muhammad Faisal Siddique	9	Muhammad Ali Nawaz
5	Muhammad Umair		

Separate classes for boys and girls are being arranged in the Institute of Nazira. For this purpose, services of female teachers for girls and male teachers for boys have been hired.

Like previous years, the department arranged Salat-ut-Taraweeh in all mosques and hostels of the University and Alhamdulillah complete holy Quran was recited by all Huffaaz. The department also arranged Aitkaaf in all the Mosques in small numbers due to COVID-19.



Development Activities

- Construction and renovation of ablution area in the main Jamia Mosque to manage large number of prayerers.
- Construction of new ablution area and washrooms in the Mosque Sheikh Zayed Islamic Centre to facilitate large number of prayerers.
- Construction of Shed for the prayers of Janazah in the main Jamia Mosque.
- 12 speakers were purchased to enhance the sound system at Main Jamia Mosque.
- A geyser of canon company also purchased for Main Jamia Mosque to provide hot water in winter season.
- Two sun heaters are purchased from the market for the Admin block & E-Block Mosques.
- Two electric water cooler are donated in Islamic Centre Mosque and One Gross cutter is donated for the graveyard.

Library

The Library of Mosques Department provided quality services to its users efficiently throughout the year. To provide quality services, as many as 131 books in Urdu, Arabic and English languages, covering areas of Quran, Tafsir, Hadith, Fiqh, Seerat-un-Nabi (PBUH), etc. were purchased from October 2019 to September 2020, besides continuing the subscription of Islamic research journal for the library. The library collection during the said period reached 14066.

The users were helped and guided about the use of catalogue for searching their required reading material from the library collection. They were provided books on demands in timely-writing their assignments. They were also provided facility of photocopying their required pages of the book for their assignment purposes. The users were provided congenial reading environment which helped them frequently visit the library on daily basis.

PUBLIC RELATIONS DEPARTMENT

The details of main activities of the Punjab University Public Relations Department during the year 2019-2020, are given, as under:

Launching of Web TV

The department played a key role in launching Punjab University's official web TV, which was launching since long. The department was assigned by the Worthy Vice Chancellor to look after its launching and gave a deadline, which was met with full preparation.

Role in COVID 19

The department has played an important role in creating awareness to fight COVID-19. Several initiatives were taken for public awareness regarding the disease and engage people in positive activities during the lockdown. The Department has highlighted PU's national role in the present scenario and took the lead in several sectors of public relations.

Press Meetings

Successful press meetings on every various issues were arranged to make the PU a resounding success.



Columns / Articles / Features

For presenting positive image of Punjab University in print media, columns, articles and features were published. The department also hosted several luncheons and dinners.

Press Releases

The day-to-day press coverage of the university events were published daily in national Press and PU gained maximum space in national press. Over 900 press releases with several pictures were published in the English and Urdu newspapers this year. The department also highlighted the research work and achievements of university scholars. The department also took up the task of coverage of our co-curricular and sports events.

PU Advertisements

PU's Public Relations Department is one of few government departments who have maintained good relationship with Director General Public Relations' office. The publication process of our tender, vacancy and special advertisements had been smooth.

Contradictions/Clarifications

Sometimes newspapers/TV channels publish/broadcast incorrect news item based on misinformation. In such cases, the PR department managed broadcast of true picture of the story for keeping the record straight.

DIRECTORATE OF EXTERNAL LINKAGES

Collaborations have been established with international universities/institutions i.e. China (8), UK (3), Italy (2) and one each with Turkey, Germany, Sudan, USA, Iran and Canada during the calendar year starting from 1st October 2019 to 30th September 2020. In addition, five (05) MoUs have also been signed with national universities/institutions in a variety of disciplines. The details are as under:

MoUs National/International (MOUs Signed between PU & International Institutions)

Sr #	Name of University/ Department	Name of Foreign Institution/Organization Linked with University	Signing Authorities	Date of Signing
1	University of the Punjab	Bahcesehir Cyprus University (BAU), Turkey	<u>University of the Punjab</u> Prof. Dr. Saleem Mazhar (for VC) <u>Bahcesehir Cyprus University</u> Ms. Nuket tanol (for Rector)	Oct. 21, 2019
2	Punjab University College of Pharmacy, PU	Department of Pharmaceutics and Biopharmaceutics, Philip University of Marburg, Germany	<u>University of the Punjab</u> Prof. Dr. Nadeem Irfan Bukhari (on behalf of VC), Dean and Principal, PU College of Pharmacy <u>Philip University of Marburg</u> Prof. Dr. Udo Bakowsky, Executive Dir.	Oct. 22, 2019
3	University of the Punjab	Northeastern University at Qinhuangdao (NEUQ), China (regarding M.Phil/MS Program)	<u>University of the Punjab</u> Prof. Dr. Niaz Ahmad Akhtar (S.I.), VC Prof. Dr. M. Iqbal Chawla, Chairman, Deptt of History & Pak Studies <u>Northeastern University</u> Prof. Li Xiaoqi, VC	Oct. 2019



			Prof. Tan Biyou	
4	School of Biological Sciences University of the Punjab	The Rosalind Franklin Institute Harwell Campus, Oxfordshire, UK	<u>University of the Punjab</u> Prof. Dr. Niaz Ahmad Akhtar (S.I.), VC <u>The Rosalind Franklin Institute</u> Prof. Dr. James A. Naismith	Nov. 07, 2019
5	University of the Punjab	University of Huddersfield, UK	<u>University of the Punjab</u> Prof. Dr. Niaz Ahmad Akhtar (S.I.), VC <u>University of Huddersfield</u> Prof. Dave Taylor, Pro Vice-Chancellor (International)	Nov. 25, 2019
6	College of Art & Design University of the Punjab (through DEAN Humanities)	College of Fine Arts & Design, Changsha Normal University, China	<u>University of the Punjab</u> Prof. Dr. M. Iqbal Chawla, Dean, Faculty of Arts & Humanities Prof. Dr. Shahida Manzoor, Prin. CAD <u>Changsha Normal University</u> Prof. Luo Xiang Ke, President Fine Arts & Design Institute	Nov. 27, 2019
7	University of the Punjab (through Pak Study Centre)	Sichuan University, PR China	<u>University of the Punjab</u> Prof. Dr. Niaz Ahmad Akhtar (S.I.), VC <u>Sichuan University</u> Professor Yan Shijing, VC	Dec. 16, 2019
8	University of the Punjab (through CEMB)	Aleenah Agriculture Co., Sudan	<u>University of the Punjab</u> Prof. Dr. Niaz Ahmad Akhtar (S.I.), Chairman BoG/VC Prof. Dr. Tayyab Husnain, Director CEMB Prof. Dr. Idrees Ahmad Nasir, CEMB (W) <u>Aleenah Agriculture Co.</u> Dr. Adil Ahmed Ali Ahmed Nuri, President Mr. Osama Saeed Muhammad Elkhier (W)	Dec. 31, 2019
9	University of the Punjab (through Instt of Applied Psychology)	Department of Psychiatry, Michigan State University, USA	<u>University of the Punjab</u> Prof. Dr. Niaz Ahmad Akhtar (S.I.), VC Prof. Dr. Firdaus-e-Bareen, Dean/Dir. Department of Psychiatry, <u>Michigan State University</u> Dr. Farha Abbasi, Assistant Prof.	Jan. 15, 2020
10	University of the Punjab	University of Palermo (UNIPA), Italy	<u>University of the Punjab</u> Prof. Dr. Niaz Ahmad Akhtar (S.I.), VC <u>University of Palermo</u> Prof. Fabrizio Micari, Rector	Feb. 07, 2020
11	University of the Punjab (through the Faculty of Pharmacy)	Isfahan University of Medical Sciences, Iran	<u>University of the Punjab</u> Prof. Dr. Niaz Ahmad Akhtar (S.I.), VC <u>Isfahan University of Medical Sciences</u> Professor Tahereh Changiz, Chancellor	Feb. 12, 2020
12	University of the Punjab	Center for International Studies (Ce.S.I), Rome, Italy	<u>University of the Punjab</u> Prof. Dr. Niaz Ahmad Akhtar (S.I.), VC <u>Ce.S.I</u> Prof.	May 05, 2020
13	University of the Punjab	University of Regina, Canada	<u>University of the Punjab</u> Prof. Dr. Niaz Ahmad Akhtar (S.I.), VC <u>University of Regina</u> Prof.	May 05, 2020



14	University of the Punjab	Dunhang Academy, PR China	<u>University of the Punjab</u> Prof. Dr. Niaz Ahmad Akhtar (S.I.), VC <u>Dunhang Academy</u> Prof. Zhang Xiantang, Deputy Director General	May 21, 2020
15	University of the Punjab	University of Cambridge, UK	<u>University of the Punjab</u> Prof. Dr. Niaz Ahmad Akhtar (S.I.), VC <u>University of Cambridge</u> Prof.	June 26, 2020
16	University of the Punjab	Hebei Foreign Studies University, China	<u>University of the Punjab</u> Prof. Dr. Niaz Ahmad Akhtar (S.I.), VC <u>Dunhang Academy</u> Prof. Sun Jianzhong, President	July 15, 2020
17	University of the Punjab (through the IQTM)	South Asian Standardization (Chengdu) Research Center, China	<u>University of the Punjab</u> Prof. Dr. Niaz Ahmad Akhtar (S.I.), VC <u>South Asian Standardization (Chengdu) Research Center</u> ???	July 22, 2020
18	University of the Punjab (through the Centre for High Energy Physics (CHEP))	School of Physics and Engineering, Zhengzhou University, China	<u>University of the Punjab</u> Dr. Talab Hussain, Assistant Professor <u>Zhengzhou University, China</u> Prof. Demin Li	Sept. 18, 2020
19	University of the Punjab (through the Centre for High Energy Physics (CHEP))	School of Physics and Microelectronics, Zhengzhou University, China	<u>University of the Punjab</u> Dr. Talab Hussain, Assistant Professor <u>Zhengzhou University, China</u> Prof. Demin Li	Sept. 18, 2020

Mous Signed Between PU & National Institutions

Sr #	Name of University/ Department	Name of Foreign Institution/Organization Linked with University	Signing Authorities	Date of Signing
1	Institute of Agricultural Sciences, University of the Punjab	Syngenta Pakistan Ltd. Karachi	Institute of Agricultural Sciences (IAGS) Prof. Dr. M. Saleem Mazhar, Director <u>Syngenta Pakistan Limited</u> Mr. Mustafa Diwan, Head of Marketing	Oct. 24, 2019
2	Pakistan Red Crescent Society	Institute of Agricultural Sciences, University of the Punjab	<u>University of the Punjab</u> Prof. Dr. Niaz Ahmad Akhtar (S.I.), VC Prof. Dr. M. Saleem Haider <u>Pakistan Red Crescent Society (PRCS)</u> Dr. Saeed Elahi, Chairman Khalid Bin Majeed, Secretary General	Nov. 13, 2019
3	Punjab Energy Efficiency and Conservation Agency, Energy Department, Government of the Punjab	University of the Punjab, Lahore	<u>University of the Punjab</u> Prof. Dr. Niaz Ahmad Akhtar (S.I.), VC Prof. Dr. Mahmood Saleem, Dir. IEEE <u>PEECA</u> Adnan Mudassar, Managing Director Mariam Khalid, Manager Legal	Feb. 19, 2020



4	Centre for Global & Strategic Studies (CGSS), Islamabad	University of the Punjab	<u>University of the Punjab</u> Prof. Dr. Niaz Ahmad Akhtar (S.I.), VC <u>CGSS</u> Major General Masroor Ahmed (R), Vice President	Mar. 04, 2020
5	Walled City of Lahore Authority, Lahore	Department of Archaeology, University of the Punjab	<u>University of the Punjab</u> Prof. Dr. Niaz Ahmad Akhtar (S.I.), VC Dr. Muhammad Hameed, Chairman Archaeology <u>WCLA</u> Mr. Kamran Lashari, Director General Mr. Najam Saqib, Director Conservation and Planning	Sept. 15, 2020

The Directorate also assists with visas for students for scholarships during their studies in foreign countries as well as for those faculty members travelling abroad to pursue a PhD degree or for a conference.

HALL COUNCIL

The Hall Council is an important statutory body of the Punjab University. It supervises 28 University Hostels, administrated by 26 Wardens, 28 Superintendents, One Chairman Hall Council, One Secretary Hall Council, One Deputy Chairman Boys Hostels, One Deputy Chairperson Girls Hostels. In these 28 hostels more than 7,580 students are residing.

1. Boys Hostels at Quaid-e-Azam Campus	15
2. Boys Hostels at Allama Iqbal Campus	01
3. Girls Hostels at Quaid-e-Azam Campus	12
Total Hostel Male and Female	28

Special Checking for Unauthorized Persons

The Hall Council, as per the vision of the Vice-Chancellor made special efforts to expel illegal occupants and a lot of success has been achieved with the positive cooperation of the Wardens and Superintendents. As a result of surprise visits, illegal persons were expelled from the hostels at the occasion. The disciplinary action was also taken against the students who had accommodated illegal persons.

Co-Curricular Activities

Every hostel organizes Annual Sports and Annual Dinners for the residents. The Hall Council supervises and provides facilities to conduct all such activities. It encourages the students to participate in the sports and other extra curricular activities arranged in the hostels and prizes are awarded to the winning students / teams. The residents of the hostels manage their mess by their own, through the mess committees formed under the supervision of hostel administration.

Basic Facilities provided by the Hall Council to the Hostels

The basic facilities for accommodation in rooms of the hostels have been provided by the Hall Council such as furniture, electric fans, water coolers etc, as per capacity and requirements. In addition, the Hall Council provides all maintenance and repair facilities to the Hostels



throughout the year. The necessary items were purchased after the approval of the special purchase committee of the Hall Council and provided to the hostels. Medical facilities/ Ambulance service is being provided to the resident students round the clock. The services of the University Physicians are also available in the night hours in emergency to the boarders. Hall Council offers complete medical cover to the residents of the hostels.

Study and Recreation Tours

Many Male and Female students/teachers from other Universities and Colleges of the country visited University of the Punjab as study tours in the year 2019-2020. The Hall Council made all necessary arrangements for their peaceful stay, and provided the facilities to visit the city of Lahore too.

Meetings

Special/routine meetings of Wardens and Superintendents were held to resolve various issues of the Hostels. With unanimous consensus many of the very delicate issues were resolved. In addition, the meetings of Purchase Committee, ad-hoc Committee were also held for the purpose.

Foreign Students

The rooms have been reserved in boys and girls hostels for Foreign Students and all necessary facilities are being provided to them so that they may feel at home in the hostels.

Street & Hostel Lights

With the help of the Engineering Department street light system in the hostels area has been improved. Water Sanitation conditions around the hostels have also been improved. Special attention has also been paid to increase plantation/greenery and natural beauty all around the hostels area.

Funds Allocated

In addition to the Budget estimate for year 2019-2020, Rs.2,00,000/- was provided to each hostel for repair/maintenance work. The amount has been spent for various maintenance/repair works to provide better facilities to the resident students.

Arrangements for Security Measurement

After the attack on Army Public School, Peshawar by the terrorists and prevailing presents threats, the Hall Council made emergent decision regarding the high security measures to be taken for all hostels and surrounding areas.

Emergent Decisions

- A complete ban has been imposed on entry of non-resident students/general public in the hostel area.
- A complete ban has been imposed on the traffic shortcuts through the hostel area.
- A large number of students of afternoon/replica program are accommodated in male and female hostels as paying guests.
- The security on entry/exit points of Hostels areas was beefed up by appointing two Chowkidars during each shift of 12 hours instead of one.
- All Chowkidars/sweepers have been directed to wear uniform during duty hours.
- Security cameras were installed in the hostel areas.



LEGAL CELL

Annual Report regarding the Punjab University cases (other than Examination) which are under trial before various courts of Law.

COURT CASES 2020 1st Jan to 31st Dec	
LOWER COURT CASES	
Filed	11
Decided	03
Pending	08
HIGH COURT CASES	
Filed	89
Decided	66
Pending	23
Supreme Court (CPLA) CASES	
Filed	15
Decided	04
Pending	11

COURT CASES 2021 Upto 24-06-2021	
LOWER COURT CASES	
Filed	04
Decided	00
Pending	04
HIGH COURT CASES	
Filed	45
Decided	27
Pending	18
Supreme Court (CPLA) CASES	
Filed	01
Decided	00
Pending	01

HUMAN RESOURCE BRANCH

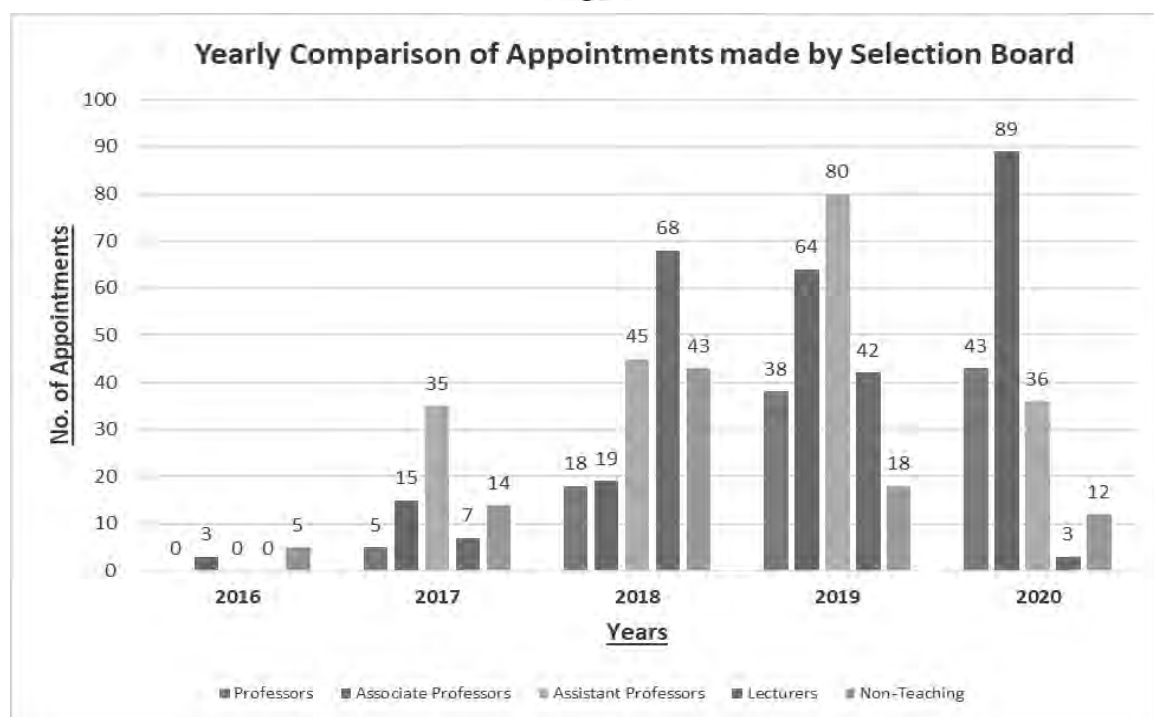
Human Resources Branch was established in October 2008 in order to streamline the appointment procedure of teaching faculty/administrative staff. Following are major functions of the Branch:-

- Publishing of advertisements
- Receiving/processing applications
- Conduction the Selection Boards
- Issuance of appointment orders

Till to time, 30 advertisements for appointment of teaching faculty and administrative posts (BS-17 & above) have been floated in the print media. Against these advertisements, 31,289 were received which were scrutinized, processed and then forwarded to the concerned Deans for determination of eligibility.

After getting their eligibility by the concerned Deans/Officers, the office prepares their Assessment Sheets based on their academic qualification marks and short list the candidates. In case of the appointments of Professor/Associate Professors office contact with the foreign/local subject experts for getting their expert opinion. And when the cases ready to place before the Selection Board, the eligible and short listed candidates are issued call letters for interview, after getting approval from the authorities.

Since the creation of the Branch, 269 meetings of the Selection Board have been conducted. The breakup of the appointments made by the Selection Boards in the last five years is as under:



PUNJAB UNIVERSITY LIBRARY

R&D- An Overview

Punjab University Library is the largest library of Pakistan having rich rare material and special collections. A large number of services based on ICT's are being provided to library users. During the above cited period, 4299 new titles were added / accessioned (English, Urdu, Persian, Arabic, manuscripts & theses etc.), 5370 new members were registered, 89436 students visited the library and almost 11932 books (Hard form) as well as thousands of PDF books through USB & E-mail provided as per convenience and requirements of the users. Serial Section subscribed 60 Foreign Journals during the last year, while a total of 15 daily newspapers are also being subscribed.

Newly Launched (continued)

The Punjab University Library got membership of CSTRIDL, a consortium for Research and Development libraries of Pakistan organized by PASTIC National Centre.

Projects: (Continued & completed)

- Total 1233 Manuscripts scanned, 243 Manuscripts having 37835 pages have been scanned in this year.
- More than 10,000 new PDF books have been added. Now all PDF books are more than 80,000 searchable from Library's OPACS.
- Approximately 2300 cases of similarity index have been checked during the period including 180 Ph.D., 2115 M.Phil. & articles (Online similarity report, save cost of printing and pages, a step toward green environment).



P.U. Library Book Club

The library continued conducting programs of its Book Club for the promotion of reading habits in the months of October 2019, December 2019, January 2020 and February 2020.

Seminars/ Conference / Workshop / Symposia / Exhibition etc.

Dr. Muhammad Haroon Usmani, Chief Librarian chaired (online) a session in the 2nd International conference on Emerging Issues of Information Landscape (ICEIL II – 2020)

- a. “Building, connecting and sustaining libraries and societies in Digital Era”

Day 2: Tuesday, April 21, 202 (Session 5 chaired)

International Delegation(s)

A group of research delegates from 24 countries visited the Punjab University Library with Dr. Sobia Khurram, Director External Links, University of the Punjab, Lahore.

National Delegation(s)

- On 20th of August, 2020, a delegation from Minhaj University led by Zaheer Ahmad visited the PU Library.
- On 3rd of February, 2020, a group of BS students from University of the Education visited the PU Library.

Services while COVID-19

Due to the COVID-19, it had been quite difficult for us to provide smooth services to PU Library users. Even though, we tried our best to provide smooth services as per detail given below:

- Mr. Kashif Khurshid, Deputy Chief Librarian had been deputed to serve through HEC databases off campus by giving his VPN.
- Services of similarity checking
- Free database online services visible on our website (popup)
- Services through Email as well as Whatsapp

Serial Section Continued & completed:

- Subscribe 60 International scholarly print journals on different subject(s)
- Data entry of 4470 Journals records in MLIMS (Version 2.0)
- Marinating the bound volumes of Major 15 Newspapers
- Repairing of torn and old books in binding
- Lamination and binding of different collections
- More than 175 complementary journals received and displayed for services
- Monthly Publication of Newspaper index in print and on PU library website

Catalogue Section

- | | |
|-----------------------|------|
| ▪ Data entry of books | 3843 |
| ▪ Spine labeling | 4000 |



Oriental Section

1. Technical Processing (Data Entry)

a. Urdu / Punjabi Books & Multi volume Books	1800
b. Arabic / Persian Books	199
c. Iqbal Collection (Old Books, Personal Collection)	150
d. Thesis	65
e. Old Thesis Entry	60
f. Muhammad Haroon Usmani (personal collection)	2000-2025
g. Catalogue Cards + Shelf List Card Type	3000
h. Labeling / Barcoding (Binding & new books)	4000

2. Miscellaneous Services to the Readers

a. Shelving of Books, Periodicals	20000
b. Shelving of Collection Books + Periodicals	1500
c. Reference Service of Thesis	4000
d. Counter Service (Students & Researchers)	20000

3. Online Research Services SDI/CAS

4. Urdu manuscript cataloging project (Continued)

5. Monthly Work Performed: 3 Newspaper Index Typing

Dawn, The Nation, Daily Times + Monthly New Arrival List

6. Rearrangement and shelving of all collection of Oriental Section (Project completed)

7. Mumtaz Anwar Collection

There was a duplicate record problem.

Duplication of books was checked in MLIMS, and issue was resolved in Prof. Mumtaz Anwar's collection.

Reference Section

<i>Handling of Local visit</i>	30+
▪ Participated in orientation session as Speaker (new classes)	02 months
▪ Digital Reference Service through email whatsapp, SMS (SDI)	1400+
▪ General guidance services (plagiarism, E-article, OPAC etc.)	3000+
▪ Research support about HEC database	500+
▪ Technical processing of reference books	200+
▪ Technical services (Data entry, book cards, barcode label)	300+
▪ Photocopy services	500+
▪ Digital collection acquired (free of cost)	1500+
▪ Downloaded latest books	200+
▪ Shelving of all physical reference collection	15000+



U.N.O. Section

New Publications Added

▪ Govt. Publications:	66
▪ UNO Publications:	46
▪ Human Rights Commission of Pakistan:	57
▪ Chinese Collection:	05
▪ Council of Islamic Ideology Publications:	Nil

Section Routine Work

To provide Past Papers, UNO / Government Publications, Human Rights Commission of Pakistan reports and Chinese Collections to the students/teachers for reading and photocopies, Shelving, Typing Section Letters, Maintaining Section Letters, Dusting Almirahs and Collections, Binding Past Papers, Section Letters and Gazettes, etc.

STRENGTHNING TECHNOLOGICAL INFRASTRUCTURE

Internet Lab.

Web Development.

- Design library website to access online resources remotely in COVID-19 pandemic.
- Design light version of website to access from the low speed off campus network.
- Working on a new web based application to manage E-books database.

Network Section.

- Design new network topology to manage IT-Lab network.
- Shift the RRAS server to the Integrated Service Router.

Database System

- Reconfigure online OPAC for public network.
- Add new modules to MLIM's
- 50,000+ E-Books added to software

REGISTRATION BRANCH

The Registration Branch performs a number of vital functions which contribute towards revenue generation of the University. It caters both on campus, off-campus and external students.

Online Registration

The Registration Branch is executing registration of the students through online portal since 2018, which has replaced the manual hand-written forms.

It has minimized the chances of mistakes during composing, reduce the work load and ensures speedy processing.

The branch is carrying out a lot of jobs successfully. Out of which the majors are given below:

- To issue admission schedules for admission in all disciplines to affiliated colleges.
- To receive the Registration returns from affiliated colleges and to issue the Registration cards.



- Registration of Private (External) Candidates for Associate Degree in Arts/Science/Commerce, and M.A/M.Sc, Examinations.
- To enroll the students of M.A/M.Sc, LL.B and other disciplines.
- To register the students giving Overseas examination.
- To issue No Objection Certificates.
- To issue Migration Certificates from college to college, University to University and University to College etc.
- To process the cases of age relaxation.
- To process the cases of Change in Name.
- Correction in Particulars of the students.
- Issuance of Duplicate Cards.
- To process the cases of Session Gap.
- To hold the University Convocation.
- To hold the Elections of various notable bodies of Punjab University.
- To attest the Educational documents for students seeking admission abroad.
- To process the cases of foreign verification.
- Registration of Regular Students.
- To clear the queries raised by the Examinations department.
- Coordination with other Sections, such as Academic, Affiliation, Examinations and Accounts Branch etc.
- To perform the duties assigned by the University authorities from time to time.

Issuance of Admission Schedules

The Registration Branch is liable to issue the admission schedules to all the affiliated colleges for admission in various disciplines after declaration of results of the required exams. The 12 admission schedule are issued to 626 affiliated colleges for admission in Associate Degree in Science/Arts/Commerce, B.C.S., M.A/M.Sc., LL.B., M.Ed., MIT, Pharm D, M.Com, MLT, BSc Nursing and different diplomas etc, during Academic Year 2019-2020.

Registration Returns

The Registration Branch receives the online Registration returns from various affiliated colleges. These returns are processed/evaluated and examined by the concerned staff and are referred to the Computer Section to issue Registration Cards. During the period mentioned above, about 3000 registration returns were received from Affiliated Colleges and 288 from constituent Departments, of the University.

Registration of Private (External) Students.

Registration Branch has registered the private (external) students for the, Academic year 2019-2020 for following examinations.

Associate Degree in Arts/Science/Commerce

Registration Branch registered 50258 candidates for Associate Degree in Arts/Science/Commerce Examination in 2020. After evaluating online registration forms and its systemic processing, Registration Cards are issued.

**M.A/M.Sc**

Registration Branch registered 4345 candidates for M.A/M.Sc Examination 2020. After evaluating online registration forms registration cards were issued.

Enrollment of the Students

This branch enrolled the already registered students of LL.B., M.A./M.Sc., M.I.T. and other disciplines by issuing the enrollment lists to affiliated colleges. It is a best tool to check the intake. During this session more than six thousand students were enrolled in 100 Post Graduate 42 Law, 26 IT and 2 Science Education Colleges.

Issuance of No Objection Certificates

Issuance of No Objection Certificates is a pivotal activity carried out by the Registration Branch. No Objections certificates are issued to those students who are registered with Punjab University willing to study in any other University and to those Intermediate students whose board are located within the territorial jurisdiction of Punjab University. Registration Branch issued 12169 migration certificates and 44 NOCs were issued on Intermediate basis to the students to proceed for Education in other Universities.

Processing of College to College Migration

Registration Branch issued 107 College to College migration certificates to the students from one affiliated college to the other.

Processing of age relaxation cases.

The Registration Branch is extending its useful services to the students who became over age for their admissions by granting age relaxation in accordance with Rules and Regulations. The age relaxation certificates/letters issued to all such students during the period from 01-10-2019 to 30-09-2020 almost 285 age relaxation letters/certificates were issued.

Session Gap

Session gap is allowed to candidates seeking Regular Admission as prescribed in the rules. During this period more than 1488 letters were issued.

Change in Name

This branch also deals with the change of Name, Father's Name cases after the issuance of final degree. The candidates get decree from court of law for applying to change their name. After processing the cases more than 310 letters of change in name were issued.

Correction in Particulars

If there is mistake in the name, father's name N.I.C No, date of birth, address etc on the Registration card, correction is processed on the request of student. About 3500 cases of correction were processed during this period.

Duplicate Cards

The Registration Branch issues Duplicate Registration Cards to the students who have lost the original Registration Card. During this period about 4000 Duplicate Registration Cards were issued.



To attest the educational documents

The most valuable job being performed by the Branch is to attest educational documents. The candidates, who apply for admission to study abroad, are required to get their educational documents attested/verified by the Registrar. This branch dealt more than 906 cases during this period.

Cases of foreign verification

There is a Credential Verification Cell in the branch. Cases are received from International Universities and Educational Institutions on daily basis. This branch is processing such cases carefully. Registration Branch processed 325 cases of verification during this period.

Registration of Expatriate Pakistani Citizens

Punjab University Registration Branch also registered the overseas students taking examinations in various countries like K.S.A., Dubai etc. During this period this branch registered more than 208 overseas students for this purpose.

Election of various notable bodies of University of the Punjab

The General Branch conducts the election for the membership of Senate, Syndicate, Academic Council, Town Committee and Finance & Planning Committee etc.

Coordination with other sections

All the branches of the university work in collaboration with each other. This branch coordinates with Accounts, Examinations and Affiliation Branches for various issues.

To perform the duties assigned by the Punjab University Authorities

This branch remains ready to perform all the general duties assigned by the University Authorities. The Registration Branch is liable to process the Registration / enrollment of the students in all disciplines. The Branch has Registered and issued computerized Registration Cards to the students who got admission in the University Teaching Department, Constituent and affiliated colleges in various disciplines during this year. This Branch Registered the private candidates who appeared in B.A./B.Sc., B.Com., M.A/M.Sc. and B.Ed. examinations.

721 affiliated colleges were dealt by the Registration Branch by issuing the Registration card and Enrollment for different disciplines.

Registration of Regular Students for the Session (2019-2020).

- Associate Degree in Arts/Science/Commerce and M.A/M.Sc: Registration Branch registered 54701 Students.
- B.S Hons: Registration Branch registered 8780 candidates for B.S Hons.
- Law: Registration Branch registered 2731 candidates for Law Examination.

RESIDENT OF OFFICER-I

The tasks carried out by the office of Resident officer-I (Transport, Accommodation (teaching & non-teaching staff), Shops/Kiosks, Parking Stands and Sir Syed Campus Khanspur) from 1st October 2019 to 30th October 2020 are as follows:



TRANSPORT WING

The Transport wing of Punjab University has one of the biggest transport fleet in public sector universities of Pakistan. There are around 60 buses, coaster and vans. Two new buses have been added this year. These buses provide pick and drop facilities to the faculty, students and employees from every nook and corner of Lahore as well as also caters for their out of city study, excursion and recreational tours on very nominal rates. To keep the transport running, Transport Wing carried out regular repair and maintenance.

1. Repair & Maintenance of Vehicles

During the period under consideration Transport Wing has carried out repair and maintenance of following buses:-

a) Major Repair

Engine overhauling	03 Buses
Gate Hydraulic Jack	02 Buses

b) Minor Repair

Leave spring repair	47 buses
Gear box repair	03 buses
Clutch repair	21 buses
Radiator repair	14 buses
Injunction Pump and automizer	12 buses
Seat Poshish and Bus Body repair	04 buses

c) Increase of Store Item

Transport Wing purchased many spare parts item and keep them in stock to ensure timely repair of buses. Due to this practice, all the vehicles are in working condition and ever ready for duty.

Store Items	Available Quantity
Routine spare parts	2667 Nos.
Engine/Gear oil	3042 Litre
Tyres	107 Sets
Batteries	35 Nos

2. Revenue Receipt of Transport Wing

Due to lock down by the Government because of Covid-19, the transport of the Punjab University was not used extensively, therefore, revenue has decreased as compared to last year.

Detail of revenue for the year 2019-20 as follows:

Bus Booking	Rs. 1,810,915/-
Bus Pass (Employees)	Rs. 2,030,500/-
Transport Charges (students)	Rs. 85,010,400/-



3. Re- appropriation:

Expenditure are controlled to remain within the allocated budget, however, due to some emergent needs, some re-appropriation is done within various heads. Re-appropriation done during the period is as follows:

Sr. No	From Budget Head	To Budget Head	Re-Appropriated Amount (Rs.)
1	Convocation Expenditures (Main Office)	Maintenance of Vehicle (Transport Wing, R.O-1)	500,000/-
2	POL (Transport Wing, R.O-1)	POL (R.O-1)	25,000/-
3	Maintenance of Vehicle (Dean Faculty of Law)	Maintenance of Vehicle (R.O-1)	25,000/-
	Treasure Main Office	Telephone (Transport Wing, R.O-1)	90,000/-

Accommodation (Teaching & Non-teaching Staff)

The Residential colony of Punjab University has more than 500 houses of different categories, which includes spacious houses for faculty members as well as administrative staff of the University. The houses are allocated on seniority basis by House Allotment Committee. University also has furnished rooms/suites for bachelor male and female teachers that are also allocated on seniority basis.

The office of Resident Officer-I was involved in handing over/taking over of 29 houses/flats/suites/Rooms to the teaching staff and 42 houses/flats to the non-teaching staff during the reported period.

The survey of the hired/self hired houses of teaching/non-teaching staff in connection with house requisition is also being carried out regularly.

Shops/Parking Stands/Mobile Towers

There are more than 100 shops including canteens & cafeterias in Punjab University. These Shops & Khokhas and canteens & cafeterias are being allotted through open competition via tendering process to ensure transparency. Similarly, parking areas are earmarked for University students, employees and guests and contract for parking is also allocated through tendering process.

There are also few mobile company's towers located in Punjab University area. These companies pay rent to Punjab University for the same.

The rent collected for all such infrastructures during the aforesaid period is as follows; it is pertinent to mention that that collection of rent for shops/parking stands has reduced as due to Covid-19, the University remained under lock down.



i) Recovery of Rent of Shops/Parking Stands/Mobile Towers from 1st October 2019 to 30th September 2020

Categories	Rent of Shops	Rent of Parking Stands	Rent of Mobile Towers
Amount	Rs. 14,974,794/-	Rs. 205,11,97/-	Rs. 20,287,577/-

Sir Syed Campus Khanspur

The Sir Syed Campus of Punjab University is established for research/practical work for various students/faculty of the Punjab University. The Campus has 09 suites, 2 side rooms, 6 barracks (for male students) 3 barracks (for female students) and a seminar room (for conferences, seminars and meetings).

The suites and barracks are being made available to the teachers, students and employees of Punjab University as per their entitlement. Moreover, booking facility is also provided to teachers/students other than Punjab University, if lying vacant in off season in order to generate maximum revenue for Punjab University. Revenue collected during the period from 1st October 2019 to 30th September 2020 is Rs. 1,081,830/-

Security Establishment

To ensure safe and secure environment for the students/faculty to carry out their studies/research, an elaborate security set up headed by Chief Security Officer is established at Punjab University. They carry out regular patrol of buildings and University premises via foot/mounted (motorcycle and vehicles). E-tag system for vehicles entering University premises and CCTV cameras at vantage points have been installed to ensure secure environments for students/faculty/employees.

RESIDENT OFFICER-II

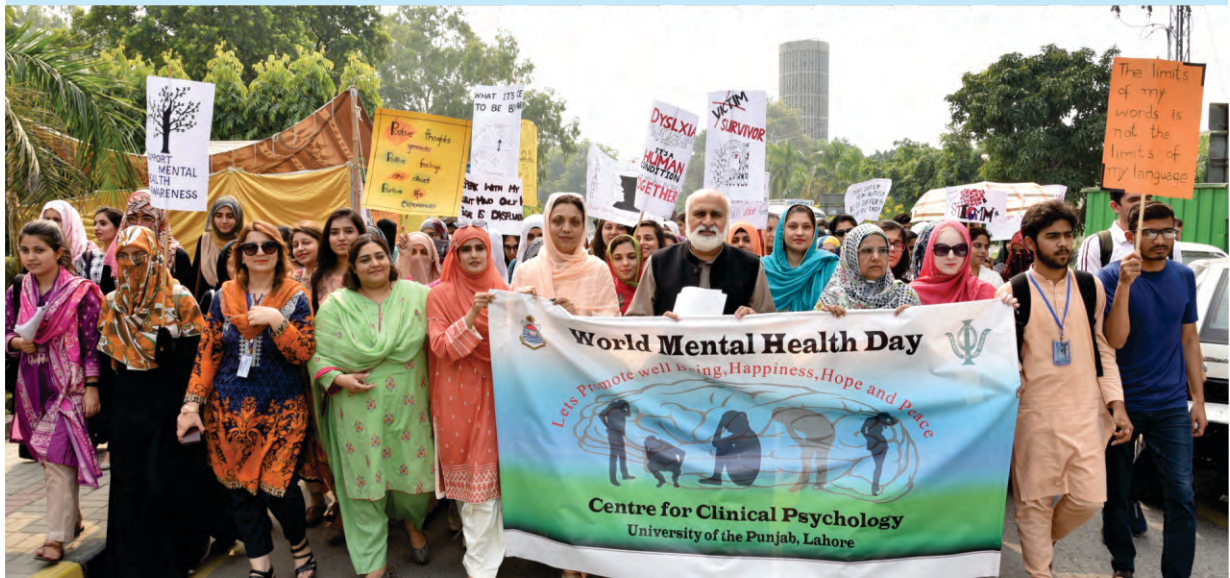
Data regarding income generated by the RO-II office during year 2019-20 is as follows;

Income Summary 2019-20(RO-II Office)

Source of Income	Area (Acres)	Total Income generated (Rs.)
Lease of Land	about 885	48,873,883/-
Self-Cultivation	104	7,608,620/-
Roses	7	448,000/-
Wood Auction	-	9,300,000/-
Fruit Auction	-	100,000/-
Total		66,330,503/-



PU VC Prof Niaz Ahmad addressing the Academic Council Meeting at Al Raazi Hall.



Awareness walk to mark World Mental Health Day at PU.



PU VC and Senior Faculty Cutting a Cake on PU's 137th Anniversary.



Chancellor University of PU awarding degree to a student at PU's 129th convocation at Faisal Auditorium.



PU VC Prof Niaz Ahmad and DG Anti Narcotics discussing eradication of narcotics from the universities at his office.



Senator Walid Iqbal attending seminar at PU School of Communication Studies while PU VC Prof Niaz Ahmad and senior journalist Muhammad Maalik are also present.



Chairman Kashmir Committee Syed Fakhar Imam, PU VC Prof Niaz Ahmad, Lt Gen (r) Khalid Maqbool, Maj Gen (r) Syed Khalid Amir Jaffery and others attending Kashmir Conference jointly organized by Punjab University and Centre for Global and Strategic Studies at PU's Dr Pervaiz Hasan Environmental Law Centre.



Kashmir Solidarity Rally at PU.



Punjab Minister for Agriculture Malik Nauman Ahmed Langrial participating in the tree plantation campaign at PU Institute of Agricultural Sciences while PU VC Prof Niaz Ahmed and others are also present.



Group photo of Thai delegates with PU VC Prof Niaz Ahmad.



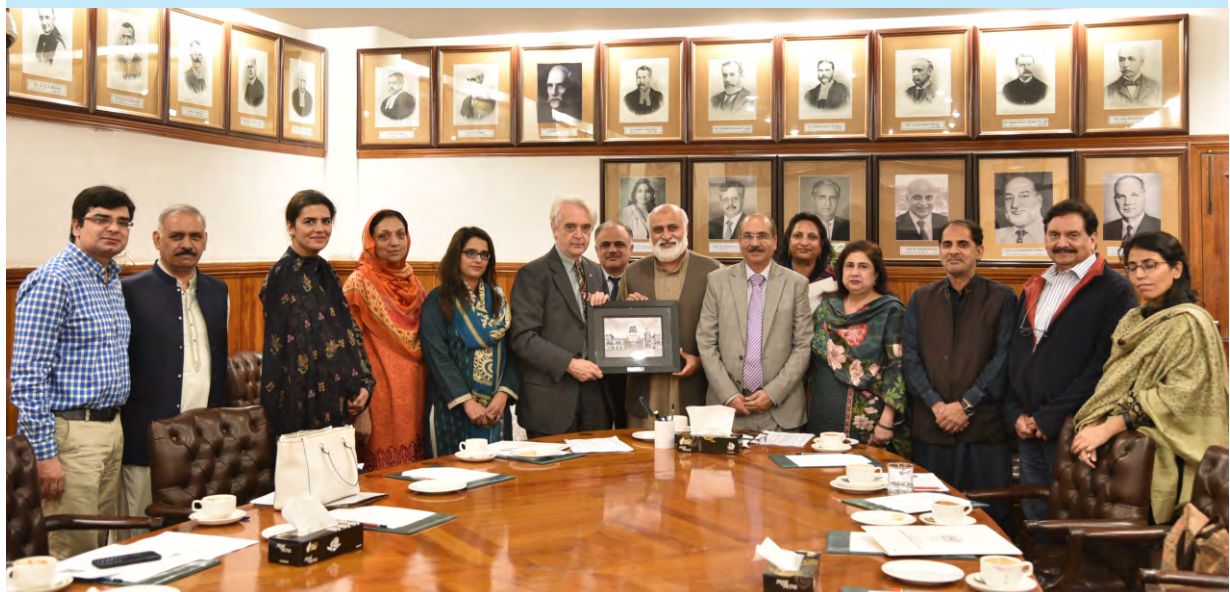
Former HEC Chairman Dr Atta ur Rehman and others sitting on stage during an international conference on "Recent Innovations in Molecular Sciences" at Faisal Auditorium.



Governor / Chancellor Punjab University Choudhary Muhammad Sarwar inaugurating the Guru Nanak exhibition at PU College of Art and Design.



Begum Governor Parveen Sarwar leading breast cancer awareness walk.



PU VC Prof Niaz Ahmad presenting souvenir to delegates



PU VC Prof Niaz Ahmad welcomes Iranian Consulate General Reza Nazeri.



Provincial Minister for Higher Education Raja Yasir Humayun Sarfraz, renowned religious scholar Dr Raghیب Naeemi, PU VC Prof Niaz Ahmad and others pose for a photo at a conference organized by Institute of Social and Cultural Studies.



PU VC Prof Niaz Ahmad and PRCS Chairman Dr Saeed Elahi signing MoU.



Pakistan Council of Islamic Ideology Chairman Prof Dr Qibla Ayaz and others sitting on stage during two-day Seerat Conference organized by HEC Pakistan's Seerat Chair at Institute of Islamic Studies' Sheikh Zayed Islamic Centre Auditorium



Pro VC Dr Saleem Mazhar and others participated in the MoU signing ceremony between PU Pakistan Study Centre and Sichuan University China's Pakistan Study Centre.



PU VC Prof Niaz Ahmad and Prof Dr James A. Naismith exchanging documents after signing MoU between PU SBS and The Rosalind Franklin Institute (RFI), Harwell Campus, Oxfordshire, United Kingdom.



University Sports League (USL) 2019-20



PU Registrar Conducting Academic Council Meeting.



Governor Punjab Choudhary Muhammad Sarwar, PU VC Prof Niaz Ahmad, Pro VC Prof Dr Saleem Mazhar and others sitting on stage at international conference on Baba Fareed and Baba Guru Nanak.



PU VC Prof Niaz Ahmad Addressing the PU Christmas Community



Group photo of Punjab Minister for Livestock and Dairy Development Sardar Hasnain Bahadur Dreshak, PU VC Prof Niaz Ahmad and others after inauguration of Climate Change Awareness Centre at Institute of Agricultural Sciences.



Former PU VC Lt. Gen. (r) Arshad Mehmood addressing the participants in the event to mark International Disabilities Day at Child Welfare Centre.



PU VC Prof Niaz Ahmad, Sichuan University's Vice President Mr Yan Shijing signing MoU between Punjab University and Sichuan University, China.



PU VC Prof Niaz Ahmad addressing a seminar to mark international day of persons with disabilities.



PU VC Prof Niaz Ahmad with FIFA Referee from South Africa Akhona Makilama, Galaxy Sports CEO Rabia Qadir and Director Sports Tahira Saleem at his office.



PU VC Prof Niaz Ahmad presenting souvenir to delegates from Kazakhstan.



PU VC Prof Niaz Ahmad exchanging souvenir with Sudan's Aleenah Agricultural Services Ltd President Dr Adil Ahmed Ali Ahmed Nuri and Mr Osama Saeed Muhammad Elkhier after signing MoU between PU CEMB and an African company.



PU VC Prof Niaz Ahmad presenting souvenir to US Consulate's Spokesperson Brian Brendel during his visit to PU



Provincial Minister for Higher Education Raja Yasir Humayun Sarfraz and PU VC Prof Niaz Ahmad kick off polio campaign at PU Health Centre.



A massive rally to express solidarity with Pakistan Army.



A delegation of Punjab University faculty members and officers led by Vice Chancellor Prof Niaz Ahmad paid visit to mausoleum of Allama Iqbal.



PU VC Prof Niaz Ahmad addressing a seminar to mark World Human Rights Day



PU VC Prof Niaz Ahmad, renowned writer Amjad Islam Amjad, Pro VC Prof Dr Muhammad Saleem Mazhar, Dr Mubbsher Munawar Khan and Dr Iqbal Chawla sitting on stage during an event in honor of thinker and writer Amjad Islam Amjad as he has received "Najeeb Fazil Award" by Turkish government.



Pro VC Prof Dr Muhammad Saleem Mazhar and others Presenting Bouquet to PU VC Prof Niaz Ahmad after online Academic Council Agenda Meeting.



PU VC Prof Niaz Ahmad, MNA Dr Seemi Bukhari, Prof Dr Timothy Cox from Cambridge University, UK, Prof Dr James Shaymn from Michigan University USA and others standing on stage in international conference of research on oncology and cancer sciences at Faisal Auditorium.



Punjab Minister for Higher Education Raja Yasir Hummayun and PU VC Prof Niaz Ahmad presenting souvenir to participant of first-ever AMCAP Doctoral Spring School at Institute of Quality and Technology Management.



PU VC Prof Niaz Ahmad attends book launching ceremony of "Mushrooms of Pakistan" 2nd edition at Sheikh Riaz ud Din Auditorium, Center of Excellence in Molecular Biology.



PU Pro Vice Chancellor Prof Saleem Mazhar, Ex-VC AIOU Prof Shahid Siddiqui, Senior journalist Mujeeb ur Rehman Shami, Syed Irshad Arif, Rauf Tahir, Dr Sughra Sadaf and others sitting on stage in a book launching ceremony of Dr Shahid Siddiqui's "Zer-e-Aasman" at Al Raazi Hall.



Prof Dr Zahid Munir Amir presenting "Armghan-e-Jamil" to PU VC Prof Niaz Ahmad.



PU VC Prof Niaz Ahmad presenting souvenir to foreign delegate while faculty members of Institute of Communication Studies also present.



PU students participate in green and clean awareness campaign organized by PU Department of Social Work.



PU Pro VC Prof Dr Muhammad Saleem Mazhar inaugurates new buses for students



PU VC Prof Niaz Ahmad signs MoU with Centre for Global & Strategic Studies (CGSS), Islamabad.



Group photo of PU VC Prof Niaz Ahmad, Baltistan University Vice Chancellor Dr Muhammad Naeem Khan and others with the winner of 3rd The Educationist All Pakistan Co-curricular Competitions.



PU VC Prof Niaz Ahmad leads awareness walk regarding Green to Orchard Program at IQTM.



PU VC Prof Niaz Ahmad addressing PU Web TV launching ceremony.



PU VC Prof Niaz Ahmad distributing free hand sanitizers prepared by PU College of Earth and Environmental Sciences (CEES) among people and traffic wardens at New Campus Bridge.



Minister for Higher Education Raja Yasir Humayun chairs Punjab University Senate Online Meeting while PU VC Prof Niaz Ahmad and others are also present.



PU VC Prof Niaz Ahmad lays foundation stone of Institute of Energy and Environmental Engineering.



PU VC Prof Niaz Ahmad and others sitting on stage at a seminar to mark world quality day.



Group photo of PU VC Prof Niaz Ahmad with the faculty members of College of Art and Design.



PU VC Prof Niaz Ahmed and Chairman FIEDMC Mian Kashif Ashfaq exchanging documents after signing an MoU between PU Institute of Quality and Technology Management and Faisalabad Industrial Estate Development and Management Company (FIEDMC).



PU VC Prof Niaz Ahmad attending MoU signing ceremony between IQTM and Chinese institute.



PU VC Prof Niaz Ahmad and Col (r) Shaukat Cheema exchanging documents after signing MoU between Punjab University and Momina Cheema Foundation for financial assistance of deserving female students.



PU VC Prof Niaz Ahmad presenting souvenir to the Director General Civil Services Academy (CSA) Dr Sajid Yoosufani.



PU VC Prof Niaz Ahmad with the recipients of Ehsas Program Scholarships.



Inauguration Ceremony of Punjab University Gate No. 1



PU VC Prof Niaz Ahmad receiving souvenir from Iranian Consulate General Reza Nazeri
Pro VC Prof Dr Saleem Mazhar is also present.



PU VC Prof Niaz Ahmad and WCLA Director General Kamran Lashari exchanging documents after signing MoU between Punjab University and Walled City of Lahore Authority.



PU VC presenting souvenir to a British delegate



PU VC Prof Niaz Ahmad awarding certificate to participants at CGSS certificate distribution ceremony.



Group photo of Punjab University Institute of Agricultural Sciences' Director Prof Dr Saleem Haider and others



PU VC Prof Niaz Ahmad inaugurating new block at IAGS.



PU VC Prof Niaz Ahmad inaugurating new block at College of Art and design.



PU VC Prof Niaz Ahmad and Executive Director Alhamra Arts Council Lahore Ms Saman Rai signing MoU.



Punjab Minister for Literacy and Non Formal Basic Education Raja Muhammad Rashid Hafeez and PU VC Prof Niaz Ahmad participating inaugural ceremony of SDGs Wall and MoU signing ceremony at Punjab University Centre for Research on Sustainable Development Goals and Sustainable Social Development Organization.



PU VC Prof Niaz Ahmad Akhtar, Pro VC Prof Dr Muhammad Saleem Mazhar and others Cutting Cake of Punjab University Anniversary.



PU VC Prof Niaz Ahmad inaugurating new block of Transport Wing.



PU VC Prof Niaz Ahmad and CSA Director General Dr Sajid Yoosufani signing the MoU between Punjab University and Civil Services Academy Walton Campus Lahore.



PU VC Prof Niaz Ahmad and Inceptor General Punjab Police Inam Ghani signing an MoU between Punjab Police and Punjab University.



PAF Surprise Day Celebrations



PU Students facing out Rally to condemn French President



Academic Council Meeting



Meeting with Thiland University Delegates



Christmas Cake Cutting



A Group Photo with Ex-Vice Chancellors and the University Administration





Department of Press & Publications