

Office#72, 2nd Floor, Institute of Chemical
Engineering and Technology (ICET),
University of the Punjab, Lahore, Pakistan
(+92) 333 6879804 (Cell) mujtaba.icet@pu.edu.pk
mujtaba_ikram@scme.nust.edu.pk
dr.mujtabaikram@gcu.edu.pk

Mujtaba Ikram

DESIGNATION OBJECTIVE:

Assistant Professor holding a challenging and creative position in a progressive, stimulating and challenging working environment where my skills are fully utilized while sharing and gaining new experiences and knowledge.

PROFESSIONAL SUMMARY:

- Application driven research and understanding of technology and process requirements.
- Hands-on experience in materials related fabrications and characterization techniques.
- Project management skills along with demonstrated leadership qualities and team work.
- Excellent work force & time management skills.
- Demonstrated written, communication and presentation skills with strong interpersonal skills.
- Fluent in English. Valuable experiences of living in multi-dimensional societies.

AREAS OF EXPERTISE:

Close space sublimation, e-beam lithography, sol gel, sputtering, chemical vapor deposition, solution precipitation, microwave irradiation, hotplate heating methods, hot pressed vacuum furnace, Hall effect measurement System, SEM, XRD, TEM, Raman, TGA, FTIR, Particle size analyzer, HPLC, XPS and Field emission measurements. Arduino (Electronics)

EDUCATION:

- 2014-2018 **PhD (Material Sciences and Engineering)**, School of Chemistry and Materials Sciences, University of Sciences and Technology of China (USTC), Hefei, Anhui-China
Systematic Studies of Enhanced Physical Properties of Ceramics-Graphene Nanostructures Assembly Prepared by Solvothermal/Hydrothermal and Hot-Pressing Process
- 2012-2012 **I-CAMP training on Renewable and Sustainable Energy, National Renewable Energy Lab (NREL)-USA (world prestigious renewable energy lab)**, University of Colorado at Boulder, USA
Materials Processing and Characterization
- 2009-2011 **MS (Materials and Surface Engineering)**, School of Chemical and Materials Engineering (SCME), National University of Sciences and Technology (NUST), Islamabad-Pakistan
Hall Effect Measurements of II-VI group Semiconductor Materials.
- 2005-2009 **B.Sc. (Hons. 4 Years) Computational Physics**, Center for high energy physics, University of Punjab Lahore - Pakistan.
Periodic Potential (Solid State Physics).

RESEARCH EXPERIENCE & MINI PROJECTS:

- 2014-2018 **PhD. Candidate**, Advanced Carbon Materials Lab-SCMS-USTC-China
Learned CVD, sputtering, hot pressed vacuum furnace, microwave irradiation, e-beam lithography and solution precipitation fabrication of advanced carbon materials and their characterization by different characterizing techniques for high strength electro thermal applications.
- 2012-2012 **Collaborative Research Project: Materials Processing and Characterization: Issues in Heteroepitaxial Growth of Si/Ge**, I-CAMP, University of Colorado at Boulder, USA
- 2009-2011 **MS. Candidate**, Thermal Transport Lab-SCME-NUST-Islamabad-Pakistan
Learned closed space sublimation thin films fabrication and characterization techniques with strong focus on Hall Effect measurements of II-VI semiconductor thin film materials for photovoltaic applications.
- 2005-2009 **BS. Candidate**, CHEP-University of Punjab-Lahore-Pakistan
Learned about theoretical concepts of periodic potential (Solid State Physics).

PROFESSIONAL EXPERIENCE:

- 2019-To Date **Assistant Professor (TTS)**, Institute of Chemical Engineering and Technology (ICET), University of the Punjab, Lahore.
- 2019-To 2022 **HEC Approved PhD Supervisor**, Institute of Chemical Engineering and Technology (ICET), University of the Punjab, Lahore.
- 2018-To 2019 **Assistant Professor (IPFP)**, Department/Institute of Physics, Government College University (GCU), Lahore.
- 2011-2012 **Research Assistant**, Thermal Transport Lab, School of Chemical and Materials Engineering (SCME), National

RESEARCH GRANTS:

- Higher Education Commission (HEC) Start Up Research Grant (SRGP)-Systematic studies of physical properties in (SiO_2 , Al_2O_3)-rGO hybrids ceramics for efficient applications (Worth 0.47 Million PKR), Institute of Physics. Government College University (GCU), Lahore, Pakistan
- University of the Punjab Research Project Grant for the Fiscal Year (2021-2022)-Hydrothermally processed Ceramic-Graphene (Silica-Graphene) hybrids for applied applications (Worth 0.2 Million PKR), Institute of Chemical Engineering and Technology (ICET), University of the Punjab, Lahore, Pakistan

MEMBERSHIP/EXTRA RESPONSIBILITIES IN UNIVERSITY OF PUNJAB LAHORE:

- Assistant Superintendent International Students Hostel No. 2 (New Campus Punjab University Lahore) (Boys)
- ICET-PU Admission Committee 2020/2021/2022 (Member)
- ICET-PU Course Revision Committee Member: Revised Courses (Applied Physics (BSc Engineering Level), Applied Physics Lab (BSc Engineering Level), Nanotechnology (MSc/PhD Engineering Level))
- Up gradation of Applied Physics Lab at ICET, PU
- ICET-PU Library Committee 2019/2020 (Member)
- Stocktaking/Physical Verification 2021 of Labs/Stores at ICET, PU
- Pakistan Engineering Council (PEC) Visit 2021: OBE Course Files Review Committee Member ICET-PU
- Information and Data Management Cell (IDMC)-ICET PU Committee: Committee Member
- Information and Data Management for ORIC-ICET-PU Committee Member
- In-Charge Applied Physics Lab ICET-PU
- In-Charge Student Fee/Dues Section ICET-PU (2021/2022)
- ICET Admission Committee 2022/2023 (Member)
- QEC-ICET Committee Member 2022

COUNTRIES VISITED FOR R&D, CONFERENCES, WORKSHOPS, TRAININGS:

- United States of America
- Italy
- Switzerland
- Egypt
- Slovenia
- Germany
- Qatar
- China
- Hong Kong
- Malaysia
- United Arab Emirates
- Srilanka

RESEARCH PUBLICATIONS/RESEARCH SEMINARS:

Impact Factor: 171.727

Citation: 800+

- “Enhanced physical properties of γ - Al_2O_3 -rGO hybrids prepared by solvothermal and hot-press processing”, **Mujtaba Ikram**, Zhuchen Tao, Jianglin Ye, Hafiz Adil Qayyum, Xuemei Sun and Jin Xu; RSC Advances, 2018, 8, 8329 – 8337 (Research Paper Publication)
- “Hydrothermal-hot press processed SiO_2 -rGO hybrid with enhanced physical properties”, **Mujtaba Ikram**, H. A. Qayyum, Sarmad Ali, Ziqi Tan, Muhammad Ahmad and Jin Xu; Journal of Solid State Chemistry, 2018, 265C, 364-371 (Research Paper Publication)
- “Enhanced bactericidal action of rGO-ZnO hybrid prepared by one pot co-precipitation approach”, Osama Usman, Muhammad Ikram*, Namra Abid, Mohsin Saeed, Aneeqa Bashir, Walid Nabgan*, Nosheen Mushahid and **Mujtaba Ikram***; ACS Omega, 2022, 7, 30, 26715–26722 (Research Paper Publication)
- “Application of Two-dimensional Materials in Perovskite Solar Cells; Recent Progress, Challenges and Prospective Solutions”, Syed Ossama Ali Ahmad, Atif Ashfaq, Muhammad Usama Akbar, **Mujtaba Ikram**, Karim Khan, Feng Wang, Muhammad Ikram and Asif Mahmood; Journal of Materials Chemistry C, 2021, 9, 14065-14092 (Research Review Paper Publication)
- “Thermal Transport Properties of $\text{Bi}_2\text{O}_2\text{Se}$ - Ag_2Se Hybrid Structures”, Muhammad Umer Farooq, Sumayya, M. Umer Iqbal, Ishrat Asghar, **Mujtaba Ikram** and Sajid Butt; NUST Journal of Engineering Sciences, 2021, 14, 2 (Research Paper Publication)
- “Carbon Nanocomposite-Based SCs as Wearable Energy Storage”, **Mujtaba Ikram**, Ali Raza, Muhammad Ikram, Asif

Mahmood; Nanostructured Materials for Supercapacitors, Advances in Material Research and Technology, Springer, 451-483, 2022 (Book Chapter Publication)

- “Materials for Photovoltaics: Overview, Generations, Recent Advancements and Future Prospects”, Muhammad Aamir Iqbal, Maria Malik, Wajeehah Shahid, Syed Zaheer Ud Din, Nadia Anwar, **Mujtaba Ikram** and Faryal Idrees; DOI: 10.5772/intechopen.101449, Thin Films Photovoltaics, IntechOpen, 2022 (Book Chapter Publication)
- “Introductory Chapter: Brief Scientific Description to Carbon Allotropes-Technological Perspective”, Sara Baig, Muazzam Ahmed, Amna Batool, Aneeqa Bashir, Saadia Mumtaz, Muhammad Ikram, Mohsin Saeed, Khurram Shahzad, Muhammad Umer Farooq, Asghari Maqsood and **Mujtaba Ikram**; DOI: 10.5772/intechopen.107940, Graphene-Recent Advances, Future Perspective and Applied Applications, IntechOpen, 2022 (Book Chapter Publication)
- “Application of Two-dimensional Materials in Perovskite Solar Cells; Recent Progress, Challenges and Prospective Solutions”, Syed Ossama Ali Ahmad, Atif Ashfaq, Muhammad Usama Akbar, **Mujtaba Ikram**, Karim Khan, Feng Wang, Muhammad Ikram and Asif Mahmood; Materials for Optical, Magnetic and electronic devices: Journal of Materials Chemistry C, 2021, 9, 40, 14033-14498, ISSN: 2050-7526 (Special Issue Research Review Paper Publication)
- “Ceramics (Si- and Al-based Oxides)-Graphene hybrids and advanced applications”, **Mujtaba Ikram** and Muhammad Umer Farooq; DOI: 10.5772/intechopen.85575, Silicon Materials, IntechOpen, 2019 (Book Chapter Publication)
- “Advanced Carbon Functional Materials for Superior Energy Storage”, **Mujtaba Ikram**, Sana Arbab, Huma Anwar, Arsalan Nadeem, Sidra Baber, Abdullah Khan Durrani, Muhammad Ikram and Asghari Maqsood; DOI: 10.5772/intechopen.93355, Advanced Functional Materials, IntechOpen, 2020 (Book Chapter Publication)
- “Surface Science of Graphene-Based Monoliths and Their Electrical, Mechanical and Energy Applications”, **Mujtaba Ikram**, Mujtaba Ikram, Sana Arbab, Bilal Tariq, Rayha Khan, Husnain Ahmad, Abdullah Khan Durrani, Muhammad Ikram and Asghari Maqsood; DOI: 10.5772/intechopen.93318, Surface Science, IntechOpen, 2020 (Book Chapter Publication)
- “Exploring the role of partially miscible melamine to modify the crystallization and morphological properties of polyethylene oxide”, Sarmad Ali, Obaid Iqbal, **Mujtaba Ikram**, Khurram Shahzad, Nisar Ali and Muhammad Bilal; Chemical Physics Letters, 2021 (Under review) (Research Paper Publication)
- “Doping of Mg on ZnO nanorods demonstrated improved photocatalytic degradation and antimicrobial potential with molecular docking analysis”, Muhammad Ikram, Sidra Aslam, Ali Haider, Sadia Naz, Anwar Ul-Hamid, Anum Shahzadi, **Mujtaba Ikram**, Junaid Haider, Syed Ossama Ali Ahmad and Alvina Rafiq Butt; Nanoscale Research Letters, 2021, 16, 78 (Research Paper Publication)
- “Nanophotonics: Fundamentals, Challenges, Future Prospects and Applied Applications”, Muhammad Aamir Iqbal, Naila Ashraf, Wajeehah Shahid, Muhammad Awais, Abdullah Khan Durrani, Khurram Shahzad and **Mujtaba Ikram**; DOI: 10.5772/intechopen.98601, Nonlinear Optics, IntechOpen, 2021 (Book Chapter Publication)
- “Advanced Carbon Materials: Base of 21st Century Scientific Innovations in Chemical, Polymer, Sensing & Energy Engineering”, Muhammad Ikram, Ali Raza, Khurram Shahzad, Ali Haider, Junaid Haider, Abdullah Khan Durrani, Asim Hassan Rizvi, Asghari Maqsood and **Mujtaba Ikram**; DOI: 10.5772/intechopen.95869, 21st Century Advanced Carbon Materials for Engineering Applications - A Comprehensive Handbook, IntechOpen, 2021 (Book Chapter Publication)
- “Introductory Chapter: Introduction to Advanced Carbon Materials and Innovative Engineering Applications”, Sadia Sharif, Sana Arbab, Amna Saeed, Khurram Shahzad, Muhammad Aamir Iqbal, Abdullah Khan Durrani, Asghari Maqsood and **Mujtaba Ikram**; DOI: 10.5772/intechopen.95969, 21st Century Advanced Carbon Materials for Engineering Applications - A Comprehensive Handbook, IntechOpen, 2021 (Book Chapter Publication)
- “Impact of temperature on structural, microstructural and dielectric properties of bismuth ferrite”, A. Maqsood, A. Rauf, M. S. Awan, M. A. Rehman and **M. Ikram**; Air University Journal of Graduate Research (AUJoGR), 2021, AUJoGR-21101, Volume 1, Issue 1, 6-13 (Research Paper Publication)
- “Overview of Liquid Crystal Research: Computational Advancements, Challenges, Future Prospects and Applications”, Maria Malik, Muhammad Aamir Iqbal, Wajeehah Shahid, Syed Zaheer Ud Din, **Mujtaba Ikram**, Nadia Anwar, Samiah Shahid and Faryal Idrees; DOI: 10.5772/intechopen.101417, Liquid Crystals, IntechOpen, 2022 (Book Chapter Publication)
- “Structural and conduction behavior of bismuth doped gadolinium-ceria electrolyte”, Hafiz Zain Ul Abideen, Asghari Maqsood, Muhammad Anis-ur-Rehman and **Mujtaba Ikram**; Air University Journal of Graduate Research (AUJoGR), 2021, AUJoGR-21103, Volume 1, Issue 1, 19-29 (Research Paper Publication)
- “2D chemically exfoliated hexagonal boron nitride (hBN) nanosheets doped with Ni: synthesis, properties and catalytic application for the treatment of industrial wastewater”, M. Ikram, J. Hassan, M. Imran, J. Haider, A. Ul-Hamid, I. Shahzadi, **M. Ikram**, A. Raza, U. Qumar and S. Ali; Applied Nanoscience, 2020, 10, 3525-3538 (Research Paper Publication)
- “Influence of Various Transition Metals Incorporated into Tellurium used as Antimicrobial Agent and Textile Dye Degradation”, S. Altaf, H. Ijaz, J. Haider, M. Naz, M. Aqeel, A. Ul-Hamid, **M. Ikram**, S. Zulfikar, S. A. Ditta, A. Shahbaz and M. Ikram; Applied Nanoscience, 2020, 10, 4241-4254 (Research Paper Publication)
- “Photo-assisted splitting of water into hydrogen using visible-light activated silver doped g-C₃N₄ & CNTs hybrids”, Tehmeena Ishaq, Maryam Yousaf, Ijaz Ahmad Bhatti, Muhammad Ahmad, **Mujtaba Ikram**, Muhammad Usman Khan and Ayesha Qayyum; International Journal of Hydrogen Energy, 2020, 45, 56, 31574-31584 (Research Paper Publication)
- “TiO₂ Co-doped with Zr and Ag Shows Highly Efficient Visible Light Photocatalytic Behavior Suitable for Treatment of Polluted Water”, M. Aqeel, M. Ikram, M. Imran, A. Ul-Hamid, U. Qumar, A. Shahbaz, **M. Ikram** and A. Saeed; RSC Advances, 2020, 10, 69, 42235-42248 (Research Paper Publication)
- “Incorporating Pyrrolic and Pyridinic Nitrogen into a Porous Carbon Made from C₆₀ Molecules to Obtain Superior Energy Storage”, Ziqi Tan, Kun Ni, Guanxiong Chen, Wencong Zeng, Zhuchen Tao, **Mujtaba Ikram**, Huijuan Wang, Xianjun Zhu, Xiaojun Wu, Hengxing Ji, Rodney Ruoff and Yanwu Zhu; Advanced Materials, 2017, 29, 8, 1603414 (Research Paper

Publication)

- “A hierarchical carbon derived from sponge-templated activation of graphene oxide for high-performance supercapacitor electrodes”, Jin Xu, Ziqi Tan, Wencong Zeng, Guanxiong Chen, Shuilin Wu, Yuan Zhao, Zhuchen Tao, **Mujtaba Ikram**, Hengxing Ji and Yanwu Zhu; *Advanced Materials*, 2016, 28, 26, 5222–5228 (Research Paper Publication)
- “Hierarchical porous carbon obtained from frozen tofu for efficient energy storage”, Xumei Sun, Jianglin Ye, Fei Pan, Jin Xu, Tao Cheng, Xiangyang Wang, **Mujtaba Ikram** and Yanwu Zhu; *New Journal of Chemistry*, 2018, 42, 12421-12428 (Research Paper Publication)
- “Supercapacitors: A hierarchical carbon derived from sponge-templated activation of graphene oxide for high-performance supercapacitor electrodes”, Jin Xu, Ziqi Tan, Wencong Zeng, Guanxiong Chen, Shuilin Wu, Yuan Zhao, Zhuchen Tao, **Mujtaba Ikram**, Hengxing Ji and Yanwu Zhu; *Supercapacitors: Advanced Materials*, 2016, 28, 26, 5331–5331 (Special Issue Research Paper Publication)
- “Electro-modulation of wide-bandgap semiconductors”, H.A. Qayyum, M.F. Al-Kuhaili, S.M.A. Durrani, Tanvir Hussain, S.H.A. Ahmad, and **Mujtaba Ikram**; *Journal of Alloys and Compounds*, 2018, 747, 374-384 (Research Paper Publication)
- “Oxygen-rich carbon quantum dots as catalysts for selective oxidation of amines and alcohols”, Jianglin Ye, Kun Ni, Jie Liu, Guanxiong Chen, **Mujtaba Ikram** and Yanwu Zhu; *ChemCatChem*, 2017, 10, 1, 259-265 (Research Paper Publication)
- “Blue shift in the optical transitions of ZnO thin film due to an external electric field”, H.A. Qayyum, M.F. Al-Kuhaili, S.M.A. Durrani, T. Hussain and **M. Ikram**; *Journal of Physics and Chemistry of solids*, 2018, 112, 94-99 (Research Paper Publication)
- “The effect of processing conditions on the structural morphology and physical properties of ZnO and CdS thin films produced via sol–gel synthesis and chemical bath deposition techniques”, Shahzad Salam, Mohammad Islam, Mahboob Alam, Aftab Akram, **Mujtaba Ikram**, Asif Mahmood, Majid Khan and Mohammad Mujahid; *Adv. Nat. Sci.: Nanosci. Nanotechnol.* 2011, 2, 045001 (6pp) (Research Paper Publication)
- “Synthesis, Characterization and Hall effect measurements of Nano-Crystalline ZnO thin films”, Asghari Maqsood, M. Islam, **M. Ikram**, S. Salam and S. Ameer; *Key Engineering Materials Vols. 2012*, 510-511, 186-193 (Research Paper Publication)
- “The Potential and Environmental benefits of developing renewable energy strategy: A Comparative analysis of Pakistan and developed countries”, M. Usman Mazhar, **Mujtaba Ikram** and Rafiq M. Choudhry; *ICSCEPM, “Issues, Challenges and Opportunities in Developing Countries” 2013*, 146-154 (Research Paper Publication)
- “Energy Policy white paper for least developed country”, Chacha Nyangi Ngutunyi, Willie Davison Ganda, **Mujtaba Ikram**, Ajay Kumar Jha, Cesar Kapseu, Kifayatullah, Balla Diop Ngom; *The world Academy of sciences annual reports, TWAS Annual Reports 2013*, pp. 59-60, *TWAS Newsletter, Vol.26 pp 20-21, No.1, 2014* (Research Report Publication)
- “Synthesis, preparation of micro/nanofibers by electrospinning and surface morphology of PS”, S. Ali, A. Ali, T. Wei, **M. Ikram**, N. Ali and L. L. Bin; *IBCAST (IEEE) 2016*, pp. 35-38. 10.1109/IBCAST.2016.7429850 (Research Paper Publication)
- “Advanced carbon materials for applications in energy engineering”, **Mujtaba Ikram**; *The Seventh International Symposium on Hydrogen Energy, Renewable Energy and Materials (HEREM) 2021* (Research Oral Presentation)
- “Hall Effect measurements of semiconductors and metals at different temperature range”, **Mujtaba Ikram**, Asghari Maqsood, Shehzad Salam and Muhammad Umer Farooq; *International Symposium on Advanced Materials (ISAM) 2011*. (Research Poster Presentation/Abstract Proceedings)
- “Conduction mechanism and Photovoltaic Characteristics of Zinc Oxide thin films”, **Mujtaba Ikram**, Shahzad Salam, Muhammad Umer Farooq and Asghari Maqsood; *Industrial Physics Forum (IPF), International Center for theoretical Physics (ICTP), Trieste-Italy and American Institute of Physics (AIP)-USA 2012*. (Research Poster Presentation/Abstract Proceedings)
- “Materials processing and characterization: Issues in heteroepitaxial growth of Si/Ge”, Ayu Wazira Azhari, Maslan Zainon, Sugandha Pandey, **Mujtaba Ikram** and Eldar Mammadov; *Inter-Continental Advanced Materials for Photonics (I-CAMP), Boulder, Colorado, USA 2012*. (Research Poster Presentation/Abstract Proceedings)
- “Hall Effect measurements and electrical conduction modeling of Cadmium Sulfide Semiconductor thin films for Photovoltaics”, **Mujtaba Ikram**, Muhammad Umer Farooq, Shahid Ameer, Adnan Nazir and Asghari Maqsood; *Workshop on Interferometry and Interactions in Non-Equilibrium Meso- and Nano-Systems, International Center for theoretical Physics (ICTP), Trieste-Italy, Center for Nanoscience (CENS) and Nanosystem Initiative Munich-Germany 2013*. (Research Poster Presentation/Abstract Proceedings)
- “Synthesis, structural and electrical characterization of nano-crystalline ZnO thin films for Photovoltaic applications”, **Mujtaba Ikram**, Asghari Maqsood, Shehzad Salam, Shahid Ameer and Muhammad Umer Farooq; *International Conference on Nanotechnology, Biotechnology and Spectroscopy (ICNBS) Egypt, 2012*. (Research Oral Presentation/Abstract Proceedings)
- “Advanced carbon materials and efficient applications”, **Mujtaba Ikram**; *Department of Physics, Lahore University of Management Sciences (LUMS), Lahore, August 2018*. (Research Seminar)
- “A Comprehensive Study of graphene based materials for photo-detection and sensing applications”, **Mujtaba Ikram**; *2015 CAS-TWAS Symposium on green technology for sustainable development, (IPE) Beijing 2015*. (Research Oral Presentation/Abstract Proceedings)
- “Enhanced Properties of Ceramic-graphene Nano Composite for Applied Applications”, **Mujtaba Ikram**; *2017 CAS-TWAS Symposium on green chemistry and technology for sustainable development, (IPE) Beijing 2017*. (Research Oral Presentation/Abstract Proceedings)
- “Advanced carbon materials: novel optimized fabrication methods, enhanced properties and efficient applications”, **Mujtaba Ikram**; *16th National Symposium on Frontiers in Physics, Government College University, Lahore January 2019*. (Research

Oral Presentation)

- “Advanced carbon materials for efficient and applied applications”, **Mujtaba Ikram**; 2nd International Conference on Physics (ICP), Air University, Islamabad, Pakistan March 2022. (Invited Speaker/Oral Presentation)
- “Graphene Based Hybrids for efficient and applied applications”, **Mujtaba Ikram**; The 8th International Symposium on Hydrogen Energy, Renewable Energy and Materials (HEREM), Thailand October 2022 (Online). (Panelist/Invited Oral Presentation)
- “Advanced carbon materials for applications in energy engineering”, **Mujtaba Ikram**; The 7th International Symposium on Hydrogen Energy, Renewable Energy and Materials (HEREM), Shanghai, China October 2021 (Online). (Panelist/Invited Oral Presentation)
- “Photovoltaic, A highly applicable renewable energy resource” **Mujtaba Ikram**; e-Magazine of National Academy of Young Scientists (NAYS)-Pakistan, Issue 2, January 2013. (Research Report/article on Renewable energy)
- “New Trend of Photo-Voltaic as Renewable Energy” published in Daily Pakistani English Newspaper “The Daily Business”, Sunday November 18, 2012. **Mujtaba Ikram** (Research article for public awareness)
- “Future of Renewable Energy in Pakistan” published in Daily Pakistani English Newspaper “The Daily Business”, Sunday September 09, 2012. **Mujtaba Ikram** (Research article for public awareness)
- “Hall Effect Measurements & electrical study of CdS & ZnO nano Material”, **Mujtaba Ikram** and Asghari Maqsood, ISBN 978-3-659-44436-4, LAP LAMBERT Academic Publishing (Book Publication)
- “Compatible Materials for Photovoltaic & Semiconductor Device Utility”, Asghari Maqsood and **Mujtaba Ikram**, ISBN (978-3-659-33104-6), LAP LAMBERT Academic Publishing (Book Publication)
- “Characterized cotton infecting begomoviruses: Cotton Growing Region: Plant Bio-safety”, Irfan Fareed, **Mujtaba Ikram**, Ibrahim Rashid, ISBN-13:978-3659528149, ISBN-10:3659528145, LAP LAMBERT Academic Publishing (Book Publication)

PROFESSIONAL AFFILIATIONS/MEMBERSHIP/REVIEWERSHIP:

- Journal of RSC (Royal Society of Chemistry) Advances (Reviewer)
- Arabian Journal of Chemistry (Elsevier) (Reviewer)
- Journal of Testing and Evaluation (Reviewer)
- Reviewed 4 book Chapters for the Open Access Book “21st Century Advanced Carbon Materials for Engineering Applications-A Comprehensive Handbook”, Print ISBN of book: 978-1-78985-912-6, Online ISBN of the book: 978-1-78985-924-9.
- IntechOpen Book “Graphene - Recent Advances, Future Perspective and Applied Applications” (Editor in Chief)
- IntechOpen, Book Title “21st Century Advanced Carbon Materials for Engineering Applications-A Comprehensive Handbook” Print ISBN of book: 978-1-78985-912-6, Online ISBN of the book: 978-1-78985-924-9 (Editor in Chief)
- SCIREA Journal of Physics (Editorial Board Member/Reviewer)
- American Journal of Materials Synthesis and Processing (Editorial Member)
- Special Issue on “Advanced Carbon Materials: Synthesis, Physical Properties and Applications”, American Journal of Materials Synthesis and Processing (Lead Guest Editor)
- Advances of Pharmacology & Clinical Trials (APCT) (Editorial Board Member)
- SCIREA Journal of Chemistry (Editorial Board Member/Reviewer)
- Journal of Green Energy and Environmental Technology (Reviewer)
- SCIREA Journal of Materials (Editorial Board Member/Reviewer)
- Nanotechnology Network-Egypt (Member)
- ICAMP (Intercontinental Advanced Materials for Photonics) 2012 USA (Member)
- American Association for the Advancement of Science (AAAS)-USA and the world Academy of sciences (TWAS) Science Diplomacy Team 2013/2014 Italy (Member)
- American Institute of Physics (AIP)-ICTP Industrial Physics Forum 2012 (Member)
- “The 7th International Symposium on Hydrogen Energy, Renewable Energy and Materials (HEREM), 2021, Shanghai, China” (Panellist and Speaker)
- “The 8th International Symposium on Hydrogen Energy, Renewable Energy and Materials (HEREM), 2022, Thailand” (Panelist and Speaker)

AWARDS, HONORS AND TRAININGS:

- Awarded with Two Advance Increments-TTS 2019 by University of the Punjab, Lahore, Pakistan.
- Awarded with Performance Based Increment (PBI)-TTS 2020 by University of the Punjab, Lahore, Pakistan.
- Awarded with Performance Based Increment (PBI)-TTS 2021 by University of the Punjab, Lahore, Pakistan.
- 2017 Green Chemistry and Technology for sustainable development (GCT) Award from the world academy of sciences (TWAS) and Chinese academy of sciences (CAS), Beijing 2017.
- Invited and attended a dinner with Former United States Interior Secretary of States Gale Norton under US President. George W. Bush and discuss with her problems of developing countries in science and technology at Center for Community in University of Colorado-USA.
- Invited and attended a Formal IPF Banquet with Keynote address by William Colglazier United States Science and Technology Adviser to the Secretary of State under US President Barack Obama at “Hotel Grief” in Trieste-Italy.

- 2015 Green Tech. Award, Special Award for outstanding contributions (Invited Lecture) to 2015 CAS-TWAS Symposium on green technology for sustainable development from Chinese Academy of sciences(CAS) and The world academy of sciences(TWAS) at Institute of process engineering (IPE)-CAS, Beijing 2015.
- Nomination for Lindau Nobel Laurate Meeting 2019 by the Lindau Nobel Laurate Council.
- A Proficient news about my international distinction and honors titled “Scientist comes up with second book” has been published in famous Pakistan International Newspaper The Dawn, 17 August, 2013.
- News about my selection for TWAS Italy Science Diplomacy On Energy have been published in The News International and The Nation Newspaper, Pakistan with titled as “Young Scientist selected for world science moot” and “NUST Student to attend a workshop in Italy” on November 02, 2013 respectively.
- NUST University Islamabad Paper Presentation Travel Award 2012 for presenting research work outside of the Pakistan.
- I-CAMP 2012 Participant Fellowship, University of Colorado, USA.
- ICTP-UNESCO-Italy Participant and Travel Fellowship, Twice 2012 and 2013.
- The World Academy of Sciences (TWAS) Science Diplomacy Travel Fellowship Award-Italy 2013.
- I-CAMP 2013 Participant Fellowship, University of Cambridge, UK
- The Chinese Academy of Sciences (CAS)-The World Academy of Sciences (TWAS) Presidential Fellow 2014.
- Emerging Nation Science Foundation (ENSF)-Italy Travel Grant award.
- The world Academy of Science (TWAS) Science Diplomacy Fellow 2013 on Innovative Energy Technologies by TWAS-AAAS (USA) International Science and Diplomacy Program, Trieste-Italy”, I was among 2 young scientists who were selected from South Asia to attend this prestigious science diplomacy program.
- A highly learning visit to National Renewable Energy Laboratory (NREL)-USA 2012.
- A highly learning visit to Energy Generation Plant (Termovalorizzatore Errera) in Italy 2013.
- Attended I-CAMP Summer School on Renewable and Sustainable Energy, University of Colorado at Boulder, Colorado-USA 2012.
- Participated as Oral Presenter in International Conference on nanotechnology, biotechnology and Spectroscopy (ICNBS), Egypt 2012.
- Travel Grant Award, Industrial Physics Forum (IPF) 2014 by American Institute of Physics (USA), ICTP (Italy) and The Sao Paulo Research Foundation, University of Campinas (Brazil).
- Merit Scholarship Holder at Punjab University, Lahore-Pakistan.

FAMOUS LECTURES, WORKSHOPS, SEMINARS ATTENDED:

- Attended famous lecture on “Science and Technology: Building Innovative Societies and 21st Century Diplomacy” by William Colglazier/ Science Advisor to the United States Secretary of State under President Barack Obama during IPF meeting at Adriatic Sea.
- Attended public lecture on “Land Use for Renewable Energy” by Gale Norton, Norton Regulatory Strategies and former US Interior Secretary of States under President George. W. Bush at University of Colorado in Boulder.
- Attended famous seminar on “From Big Bang to Biosphere: Progress and Prospects in Space Science” by Astronomer Royal, world renowned Cosmologist and Astrophysicist Sir Martin Rees – University of Cambridge-UK in ICTP-Italy.
- Attended famous seminar on “Towards a Strategic Approach to Science Diplomacy” by Vaughan Turekian/ Science and Technology Advisor to the Secretary of States under US President Barack Obama, TWAS headquarter Science Diplomacy Italy.
- Attended a Public Lecture on “Colorado and the New Energy Economy” by Colorado State Governor Bill Ritter, Colorado State University.
- Attended a public seminar on “Why Germany has Stable Policy Incentives and the U.S. Does Not” by Frank Laird, University of Denver” during Nano and Emerging PV workshop-USA.
- Attended public lecture series on “Photovoltaics Technology: No Longer an Outlier” by Larry Kazmerski-Director National Center for Photovoltaics (NREL), USA in University of Colorado-USA.
- Attended lecture series on “The Thermodynamic and Industrial Potentials of Organic Photovoltaics” by Sean Shaheen - University of Denver-USA during Industrial Physics Forum, Italy.
- Attended a seminar on “Photonic Materials for Solar Energy Conversion at the Thermodynamic Limit” by Howard Hughes Professor Harry Atwater-California Institute of Technology, USA.
- Attended public guest lecture on “The Battery 500 Project: towards the ultimate battery” by Alessandro Curioni - IBM Research, Zurich during Industrial Physics Forum, American Institute of Physics.
- Attended guest seminar on “Graphene for nanoelectronic device applications” by Luigi Colombo - Texas Instruments Inc., USA in ICTP-Italy.
- Attended general policy lecture on “Innovation, Science and Technology Policy, and the Public Good” by Member of Royal Swedish Academy of Engineering Science Venky Narayanamurti – Harvard University.
- Attended lecture series on “Photovoltaics in transition towards a mainstream electricity provider - in developed and emerging economies” by Winfried Hoffman-President European PV Industry Association, Germany.
- Attended policy lecture on “Grid Access and Renewables in Developing Countries” by Rob Stoner – Associate Director Energy Initiative at Massachusetts Institute of Technology (MIT), USA during AIP conference.

- Attended series of seminars on “Harnessing Light on a Silicon Chip for Optical Communications” by Solomon Assefa - IBM Watson Research Center-USA during Industrial Physics Forum.
- Attended lectures on “Quantum Nanotechnology” by Honorary Fellow of Royal Microscopical Society Andrew Briggs - Oxford University, UK in ICTP-Italy.
- Attended Education lectures on “Introduction to the Education Sessions” by Distinguished Scholar Dean Zollman - Kansas State University, USA during Education session in Industrial Physics Forum, Italy.
- Attended lecture series on “Developing teachers for engaged interactive teaching” by Ian Lawrence - Institute of Physics, UK.
- Attended Education Policy lectures on “Coach, An Integrated Learning Environment for Science Education” by Ton Ellermeijer & Ewa Kedzierska- CMA-Science, Amsterdam.
- Attended lecture series on “Insight into Organic Photovoltaics” by Rene Lopez - University of North Carolina, Chapel Hill, USA in ICTP-Italy.
- Attended seminar on “Microfluidic System Technology in Chemical Analysis” by Karsten Kraiczek - Agilent, Walbron, Germany in Industrial Physics Forum 2012.
- Attended lectures on “Microfluidics and the oil industry” by Patrick Tabeling - ESPCI, France.
- Attended seminar on “Explaining the flow of elastic liquids” by John Hinch – A Fellow of Royal Society and A Fellow of Trinity College Cambridge University, UK in AIP Conference.
- Attended lecture on “Photonics-based Telemedicine Technologies toward Smart Global Health Systems” by LAUNCH Health Innovation Award Winner (by NASA), Aydogan Ozcan– UCLA, US.
- Attended lecture series on “Realistic applications of optical spectroscopy in the environmental and medical fields, with industrial potential” by Sune Svanberg - Lund University, Sweden & South China Normal University.
- Attended capacity building lecture on “Destinations and Inspirations: The role of undergraduate research in capacity building for industrial physics” by Liz McCormack - Bryn Mawr College, USA in ICTP conference.
- Attended lecture series on “Diagnostics and Treatment of Tumours using Laser Techniques” by Einstein Professor Sune Svanberg (Member of Royal Academy of Sciences) and Katarina Svanberg - Lund University, Sweden and South China Normal University, Guangzhou, China during Industrial Physics Forum 2012.
- Attended lecture series on “Photovoltaics and Renewable Electricity in Europe” by Arnulf Jaeger-Waldau - European Commission's Joint Research Center, Inspra, Italy during AIP conference.
- Attended seminar on “Environmental Challenges and Renewable Energy, Business challenges, Scale challenges for Renewable Energy, Economical challenges” by Paul Komor (Uni. of Colorado), Adam Reed (Uni. Of Colorado), Steve Lawrance (Uni. Of Colorado) and Garvin Heath (NREL-USA) in University of Colorado at boulder-USA.
- Attended lecture series on “The Colorado Solar Technology Acceleration Center” by Dustin Smith, Solar Technology Acceleration Center, Aurora, CO in University of Colorado-USA
- Attended lecture series on “Multijunction Concentrator Photovoltaics for US Energy Production” by Myles Steiner, National Renewable Energy Laboratory- USA in NREL-USA.
- Attended lecture series on “Nanomaterials for Batteries” by Amy Prieto, Colorado State University in Colorado.
- Attended Public Lecture on “The Physics of Cooking” by David Weitz, Harvard University during I-CAMP Summer School.
- Attended lecture series on “Next Generation Photovoltaics” by Craig Taylor, Colorado School of Mines in Colorado.
- Attended Energy policy lecture series on “Energy Analysis at NREL by Gian Porro, National Renewable Energy Laboratory- USA in NREL-USA.
- Attended lecture series on “OPV Materials Synthesis” by Martin Heeney, Imperial College of London in Duane Physics Building-CO.
- Attended lecture series on “Vacuum Processing and the p-i-n Concept for OPV” by Moritz Riede, TU Dresden in I-CAMP conferences.
- Attended series of seminar on “Introduction to Electrochemistry” by Paul Burn, University of Queensland-Australia.
- Attended lecture series on “Morphology and Interface Engineering in OPV” by Gang Li, University of California at Los Angeles.
- Attended public lecture series on “Public Lecture: Plastic Solar Cells” by Kees Hummelen, University of Groningen, the Netherlands during visit to NREL-USA.
- Attended public lecture on “Experiments with Candies, Dice and Colloids” by Paul Chaikin, New York University during I-CAMP Summer School.
- Attended lecture on “Accelerating 21st Century Transformational Science” by Richard Wiener, Research Corporation for Science Advancement in Fleming 155, Co-USA.
- Attended lecture series on “Scale, the Economy, and Decarbonization” by Roger Pielke, Jr., University of Colorado at Boulder.
- Attended Public lecture “The Physics of Sustainability” by Peter Littlewood, Argonne National Laboratory and University of Chicago.
- Attended lecture series on “Integrating Nanotechnology with Biology for Solar Energy Conversion to Fuels” by Paul King, National Renewable Energy Laboratory at NREL-USA.
- Attended lecture series on “Si Nanowire Based Thin Film Solar Cells: Concepts and Experimental Results” by Silke H. Christiansen, Max-Planck-Institut for the Science of Light (Germany).
- Attended a seminar on “Two Pieces of the Nanocrystal PV Puzzle: Controlled Doping and Relation Between “Dark” and “Light” Charge Transport” by Victor Klimov, Los Alamos National Laboratory during nano PV workshop-USA.

- Attended lectures on “Integer Quantum Hall Edge States far from Equilibrium” by John Chalker, University of Oxford, U.K. in nano system workshop in Trieste-Italy.
- Attended a seminar on “Zero-bias Oscillations and Magnetoconductance Crossover in Superconductor-Nanowire Devices” by Hugh Churchill, Harvard University, Cambridge, U.S.A during non-equilibrium meso systems workshop in ICTP-Italy
- Attended guest lecture on “Entanglement Generation via Landau-Zener Interferometry” by Jason PETTA, Princeton University, U.S.A.
- Attended science diplomacy conference on innovative energy technologies for sustainable future by The World Academy of Sciences for developing countries (TWAS), Trieste-Italy.
- Attended 2015 CAS-TWAS Symposium on green technology for sustainable development, IPE-CAS, Beijing.
- Attended 2017 CAS-TWAS Symposium on green chemistry and technology for sustainable development, IPE-CAS, Beijing.
- Attended and research poster presented in Industrial Physics Forum 2012 organized by ICTP, Trieste Italy and American Institute of Physics, USA at ICTP, Trieste Italy.
- Attended and research poster presented in “Workshop on Interferometry and Interactions in Non-Equilibrium Meso- and Nano-Systems” organized by ICTP, Trieste-Italy, Center for Nano science (CENS) and Nano system Initiative Munich-Germany 2013 at Italy.
- Attended International Conference on Engineering of Carbon Materials, Jan 2015 by Shandong University, Jinan and Rice University, USA in Shandong University-Jinan, China.
- Attended International Symposium on Advanced Materials (ISAM)-Islamabad-Pakistan 2011.
- Attended 9th International Bhurban Conference on Applied Sciences & Technology (IBCAST)-Islamabad-Pakistan 2012
- Participated in 2013 “Discover” Program Prosperity Through Entrepreneurship NUST BUSINESS PLAN-Pakistan.
- Attended 2013 Young Pakistani Thinkers (YPT) Assembly-Islamabad on 29th June 2013 in Ramada Hotel-Islamabad.
- Attended Endnote x6 Workshop at School of Chemical and Materials Engineering (SCME), NUST-Pakistan.
- Attended 16th National Symposium on Frontiers in Physics, Government College University, Lahore January 2019.
- Attended seminar “Physical Basis of the Standard Model of Cosmology: Nobel Prize Work 2019”, by Babar Ahmed Qureshi, Abdus Salam School of Mathematical Sciences, Physics Seminar Hall, GCU Lahore, October 21, 2019.
- Attended seminar “From Space Mission to Space Exploration”, by Mansoor Ahmad (Emeritus NASA, Goddard Space Flight Centre, USA), Physics Seminar Hall, GCU Lahore, Nov 06, 2019
- Attended and participated “The 7th International Symposium on Hydrogen Energy, Renewable Energy and Materials (HEREM), 22 Oct 2021, Shanghai, China as an oral presenter
- Attended and Participated “2nd International Conference on Physics (ICP), 29-30 March 2022”, Air University, Islamabad, Pakistan as Invited Speaker
- The 8th International Symposium on Hydrogen Energy , Renewable Energy and Materials (HEREM 2022) October 14-15, 2022, Bangkok, Thailand as Invited Speaker
- 17th symposium on Frontiers in Physics, 21-23 November, 2022 at GCU Lahore as Oral Presenter.

PhD STUDENTS UNDER SUPERVISION/CO SUPERVISION:

Student Name	University Name	Degree Level	Thesis Topic
Muhammad Imran	Institute of Chemical Engineering & Technology (ICET), University of the Punjab, Lahore	Ph.D. CE-05. F18 Session: 2018-2023	Graphene-Metal Oxide Based Hybrid Material for Energy Storage
Azka Mehvish	Department of Physics, University of the Punjab, Lahore	PhD-02F20 Session: 2020-2025	Enhanced Physical Properties Of Rare Earth Metal-Graphene Based Hybrids For Technological Applications
Osama Usman	Department of Physics, The University of Lahore, Lahore	DPH01161001 Session: 2016-2021	Designing of Metal Oxide-Carbon Hybrid Nanostructures with Improved Physical Properties & Molecular Docking.

EXTERNAL EXAMINER FOR THESIS EVALUATION:

I have been acted as external examiner for thesis evaluation of following students:

Student Name	University Name	Degree Level	Thesis Topic
Mudassir Hussain	University of Education,	BS Physics	Magnetic Field Assisted Seed

	Faisalabad	Session: 2015-2019	Germination of Raphanus Raphanistrum Subsp Sativus (Radish)
Muhammad Irfan	University of Education, Faisalabad	BS Physics Session: 2015-2019	Bone Equivalence of Beryllium, Carbon-Graphite and Magnesium using Electron Gamma Shower for 6MV Beam
Amna Munawar	University of Education, Faisalabad	BS Physics Session: 2015-2019	Radiotherapy Dose Calculation of Carbon-Graphite Magnesium and Beryllium as Bone Substitute for 10MV Photon Beam
Kamila Younas	University of Education, Faisalabad	BS Physics Session: 2015-2019	Laser Spectroscopy of Nickel doped Tin Oxide Nanostructures by Electron Density Conservation Methodology
Muhammad Aftab	University of Education, Faisalabad	BS Physics Session: 2015-2019	Synthesis and Physical Characterization of Nickel doped Tin Oxide nano particles by Co-precipitation and Hydrothermal routes
Muhammad Arslan Haider	University of Education, Faisalabad	BS Physics Session: 2015-2019	Determination of Major and Minor Nutrients in Soil using Laser Induced Breakdown Spectroscopy
Faiza Rani	Government College University, Lahore	MPhil Physics Session: 2019-2022	Synthesis and Characterization of Lead-Free Double Perovskite Halide Cs_2SiX_6 (X=Cl, Br, I) for Energy Harvesting/Optoelectronic Applications
Arif Khan	Government College University, Lahore	MPhil Physics Session: 2019-2022	Development of Nickel & Cobalt based Pure and Binary Metal Organic Framework as electrode materials for efficient supercapattery devices

PROFESSIONAL REFERENCES:

Will be furnished as per requirements.