Prof. Dr. Sohail Chand

Professor of Statistics
College of Statistical and Actuarial
Sciences
University of the Punjab
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Web of Science Researcher ID   **Scopus ID**
E-4815-2013   55198869400

Research Interests:
Statistical modelling; Applications of regression and time series models to medical and financial data; Bootstrap methods; Shrinkage methods; Spatial Models.

Computing and IT Skills:
R programming; LaTeX; SPSS; Microsoft Office

Education and Employment:

<u>2020 to date:</u> **Professor of Statistics**, College of Statistical and Actuarial Sciences, University of the Punjab, Lahore. Currently, I am teaching Statistical Computing (R Language), LaTex and Research Methodology to M.Phil/Ph.D students in Statistics. I am also teaching a course on Time Series Analysis to M.Sc students. I have also experience of teaching applied statistics and SPSS to the research students of various disciplines like Psychology, Mass Communication, Quality Management, Business management.

2013 to 2020: **Associate Professor,** University of the Punjab, Lahore.

2011-2013: **Assistant Professor**, University of the Punjab, Lahore

2007-2011: **PhD (Statistics) University of Nottingham, UK.**

Principal Supervisor: Professor A.T.A. Wood
Associate Supervisor: Dr. C.J. Brignell

2002-2007: **Lecturer,** Institute of Statistics, University of the Punjab, Pakistan.

1999-2001: **M.Phil. (Statistics),** Government College University, Lahore, Pakistan.
Thesis title: Predictive Strength of Classical Risk Factors of Coronary Artery Disease

1997-2002: **Lecturer,** College Cadre, Govt. of the Punjab, Pakistan.

1996: Visiting lecturer at private institutions (Waiting time for M.Sc. result).

1993-1995: **M.Sc. (Statistics)**, First Division, University of the Punjab, Pakistan.

1990-1992: **B.Sc. (Statistics & Mathematics)**, First Division, University of the Punjab, Pakistan.

Awards and Honors:

1) Listed in the Directory of 'Productive Scientists of Pakistan-2017' created by Pakistan Council of Science and Technology (PCST).
2) University of the Punjab, best teacher award in 2006.
3) College role of honour in Intermediate examination.

Memberships:

1. Member, Punjab University Advance Studies and Research Board
2. Member, Punjab University Curriculum Development Committee
3. Member, Punjab University Associate Degree Course Development Committee
4. Member, Punjab University Admission Committee.
5. Member, Punjab University House Allotment Committee.
6. Member, Punjab University Convocation Entertainment Committee.
7. Member, Punjab University Semester Implementation Committee.
8. Member, Punjab University House and Car Loan Committee.
9. Convener, Punjab University Board of Studies in Statistics
10. Member, GCU Lahore Board of Studies
11. Member, LCWU Board of Studies
12. Member, Science Faculty Board.
13. Convener, Doctoral Program Coordination Committee in Statistics.

Scholarships and Grants:

1) Granted funding for research project (Rs. 200,000) Punjab University funded Research Project titled "Improvement in Monti's test for diagnostic checking to time series models" Awarded vide Notification No. D/605/Est.I, dated 24-02-2015
2) Granted funding for research project (Rs. 150,000) Punjab University funded Research Project titled "Mixed Portmanteau Test for Diagnostic Checking of Time Series Models" Awarded vide Notification No. D/5227/Est.I, dated 13-02-2013
3) Granted funding to present a poster in a research workshop "Sparse structures: statistical theory and practice" 16-18 June 2010, held at the University of Bristol, UK.
4) Awarded scholarship (Rs. 7 Million) by Higher Education Commission of Pakistan for Phd in UK.
5) Higher Education Commission of Pakistan doctoral scholarship for University of Auckland, New Zealand, 2005 (Cannot avail due to some personal commitments).
6) Awarded merit scholarship by University of the Punjab for M.Sc studies.

Research Articles:

1) Javed, Z, **Chand, S.** and Ahmad, M. (2020). Spatial statistical analysis of groundwater quality in Sheikhupura-Pakistan using Inverse Distance Weighting and Ordinary Kriging. **Submitted** to *Desalination and Water Treatment*. (**HJRS Category-W**, **IF = 1.234**)

2) Saqib, M., Chand, S. and Memon, A.Z. (2020). The power lomax geometric distribution: Properties, Estimation and Applications. **Submitted** to Kuwait Journal of Science (**HJRS Category-W**, **IF =**)

3) Suhail, M., **Chand, S**. and Aslam, M. (2020). Performance of quantile based ridge M-estimator for linear regression model with multicollinearity and outliers. **Submitted**

4) 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. **(HJRS Category X)**

5) 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. **(WoS, HJRS Category-Y)**

6) 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. **(WoS, HJRS Category-Y)**

7) **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 (**HJRS Category-W**, **IF = 1.871**)

8) 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. (**HJRS Category-W**, **IF = 1.234**)

9) 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. **(IF = 0.891)**

10) Suhail, M., **Chand, S.** and Kibria, B.G. (2019). Quantile based robust ridge m-estimator for linear regression model in presence of multicollinearity and outliers. *Communication in Statistics: Simulations and Computation*, DOI: 10.1080/03610918.2019.1621339 (**IF = 0.501**)

11) Suhail, M., **Chand, S.** and Kibria, B.G. (2019). Quantile based estimation of biasing parameter in Ridge Regression. *Communication in Statistics: Simulations and Computation*, DOI: 10.1080/03610918.2018.1530782 (**IF = 0.501**)

12) Sharif, M., Batool, M., **Chand, S.** and Athar, M. (2019). Forensic discrimination potential of commercially used fountain pen inks of various colours in Pakistan by UV/Visible Spectroscopy, Thin Layer Chromatography and Fourier Transform Infra red Spectroscopy. *International Journal of Analytical Chemistry*. Article ID. 5980967 (**IF = 1.479**).

13) **Chand, S.,** Ahmad, S. and Batool, M. (2018). Solution path efficiency and oracle variable selection by lasso-type methods. Chemometrics and Intelligent laboratory Systems, 183: 140-146 https://doi.org/10.1016/j.chemolab.2018.10.015 (**IF = 2.701**)

14) **Chand, S.** and Aftab, N. (2018). Modified variance ratio test of autocorrelation in the presence of heteroskedasticity. *Lahore Journal of Economics*, 23(1): 1-19. (Category-X)

15) Aftab, N. and **Chand, S.** (2018). A simulation based evidence on the improved performance of a new modified leverage adjusted heteroskedastic consistent covariance matrix estimator in linear regression. *Kuwait Journal of Science,* 45(3): 29-38. **(IF = 0.811)**

16) Ahmad, M., **Chand, S.** and Rafique, H.M. (2017). Geostatistical cokriging and multivariate statistical methods to evaluate groundwater salinization in Faisalabad-

Pakistan. *Desalination and Water Treatment:* 84(2017): 93-101. doi: 10.5004/dwt.2017.20911 **(IF = 1.631)**

17) Ahmad, M., **Chand, S.,** Rafique, HM. (2016). Predicting the spatial distribution of sulfate concentration in groundwater of Jampur-Pakistan using geostatistical methods. Desalination and Water Treatment, 57(58): 28195-28204 doi: 10.1080/19443994.2016.1182076 **(IF = 1.173)**

18) Rashid, M. and **Chand, S.** (2016). Spatial Analysis and Modeling of Infant Mortality Rate Using Conditional Autoregressive Model – A Case Study of Punjab, Pakistan. *Pakistan Journal of Medical Research*, Vol. 55, No. 3, 75-83. **(IF = 0.696)**

19) Aftab, N., & **Chand, S**. (2016). A New Heteroskedastic Consistent Covariance Matrix Estimator using Deviance Measure. *Pakistan Journal of Statistics and Operation Research*, *12*(2), 235-244.

20) Kausar, K. and **Chand, S.** (2015). Modeling Income Distribution and Measuring Income Inequality. *Caspian Journal of Applied Sciences Research, Vol. 4, No. 4, pp. 6-13.*

21) Ahmad, M., and **Chand, S.** (2015). Spatial Distribution of TDS in Drinking Water of Tehsil Jampur using Ordinary and Bayesian Kriging. *Pakistan Journal of Statistics and Operation Research*, *11*(3), 377-386.

22) Saeed, S., Javed, Z., **Chand, S.**, Hashmi, N. and Ahmad, M. (2015). Spatial Distribution of Arsenic Concentration in Drinking Water Using Kriging Techniques. *Science International*, Vol. 21, No. 2, pp. 949-954.

23) *Abbas, R., Abbas, H.G., Shahid, A., **Chand, S.** and Nawaz, S. (2014). Reference Intervals for Free T3 and Free T4 in Pakistani Euthyroid Patients: Effect of Age and Gender on Thyroid Function.* Journal of College of Physicians and Surgeons of Pakistan, Vol. 24, No. 11, 806-809. **(IF = 0.372)**

24) Haq, A. and **Chand, S.** (2014). Exploratory Study of the Pattern and Motives of Facebook Usage among University Students. *Journal of Statistics*. Vol. 21, 118-127.

25) *Iqbal, F. and **Chand, S.** (2014). Modeling Monthly and Annual of Temperature Series of Quetta, Pakistan.* Pakistan Journal of Statistics and Operation Research, Vol. 10 No. 4, 361-368.

26) Ahmad, M., **Chand, S**., Ali, N., Javed, Z., Munir, M.R. and Azhar, M. (2014). Spatial Modeling of Field Variability in Improving the Potency of Varietal Contrast. Journal of Global Innovations in Agriculture and Social Sciences. Vol. 2. No. 4, 195-199.

27) **Chand, S.** and Rehman, A. (2014). A Note on Distribution of Pena-Redriguez Portmanteau Tests. *Caspian Journal of Applied Sciences Research*, Vol. 3, No. 10, pp. 1-7.

28) *Chand, S. and Hadyait, M.A. (2014). Oral health related knowledge, attitude and practice among school children from rural and urban areas of district Sheikhupura, Pakistan. Pakistan Oral and Dental Journal, Vol. 34, No. 1, 109-112.*

29) ***Chand, S**. and Kamal, S. (2014*). Mixed portmanteau test for diagnostic checking of time series models. *Journal of Applied Mathematics*. Vol. 2014, Article ID 545413, 8 pages, 2014. doi:10.1155/2014/545413

30) Iqbal, F. and **Chand, S.** (2013). Efficient bootstrap forecast intervals for return and volatility: Using the linear estimator of ARCH models. Middle East Journal of Scientific Research, Vol. 14, No. 11, 1502-1507.

31) Parshad, N., Munir, M.F. and **Chand, S.** (2013). Perfectionism, Self-Esteem and Procrastination. Pakistan Journal of Professional Psychology, Research and Practice. Vol. 47-54.

32) **Chand, S**. and Kamal, S. (2013). Bootstrap Power of Time Series Goodness-of-Fit Tests. *Pakistan Journal of Statistics and Operation Research,* Vol. 9 No. 2, 155-170.

33) **Chand, S.**, Farooqi, A.A. and Munir, M.F. (2013). Factor model of parenting style using exploratory and confirmatory factor analysis. Middle East Journal of Scientific Research, Vol. 15, No. 7, 1028-1034.

34) **Chand, S**. (2012). On tuning parameter selection of lasso-type methods- A Monte Carlo study, *IEEE Conference proceedings* of IBCAST.

35) **Chand, S.** and Aftab, N. (2012). On Finite Sample Distribution of Quasi Test Statistic based on Heteroskedastic Consistent Covariance Matrix Estimators. Middle East Journal of Scientific Research, Vol. 12. No. 8. 1157-1164.

36) **Chand, S.**, Kamal, S. and Ali, I. (2012). Modelling and volatility analysis of share prices using ARCH and GARCH models. *World Applied Sciences Journal*. Vol. 19 No. 1, 77-82.

37) Munir, M.F., Rahman, N.K. and **Chand, S.** (2012). Imaginal processes, Coping Behaviour and Mental Health of Adult Students of Lahore City. Pakistan Journal of Psychlogical Research, Vol. 3, 12-22.

38) Haq, A. and **Chand, S.** (2012). Pattern of Facebook Usage and its Impact on academic performance of students in higher education. *Bulletin of Education and Research*, Vol. 34 No. 2, pp. 19-28.

39) **Chand, S**. And Kamal, S. (2011). Variable selection by lasso-type methods, *Pakistan Journal of Statistics and Operation Research*. Vol. 7 No. 2, 451-464.

40) **Chand, S**. and Kamal, S. (2007). Predictive strength of classical risk factors of coronary artery disease among pre-menopausal female patients in Punjab, *Pakistan Journal of Statistics and Operation Research, Res.* Vol. 3. No.1, 31-34.

41) **Chand, S**. And Kamal, S. (2006). A comparative study of portmanteau tests for univariate time series models. Pakistan Journal of *Statistics and Operations Research*, Vol. 2 No. 2, 111-114.

42) Ahmed, F. and **Chand, S**. (2006). Log linear models for religious and social factors affecting the practice of family planning methods in Lahore, Pakistan. *Pakistan Journal of Statistics and Operation Research,* Vol. 2 No. 1. 35-44.

43) **Chand, S**. and Kamal, S. (2005). A logistic regression model for coronary artery disease among male patients in Punjab, Pakistan. *Pakistan Journal of Statistics and Operation Research,* Vol. 1. No.1.

Papers presented in Conferences/Symposiums:

1) Paper titled 'Spatial distribution of Arsenic concentration in groundwater using Kriging techniques' presented at 6th International Water Conference in Islamabad on December 29-30, 2020.

2) Paper titled 'Performance of some new ridge regression estimators' presented at 13th International Conference on Mathematics, Actuarial Science, Computer Science and Statistics (MACS), December 14-15, 2019 held at Karachi-Pakistan.

3) Paper titled 'LAD-LASSO and WLAD-LASSO for variable selection in the presence of outliers' presented at 17th International Conference on Statistical Sciences: Sustainable Development Goals and Data Gap Challenges, January 21-23, 2019 held at NCBA&E, Lahore.

4) Paper titled 'A Statistical Study on Generation Gap and its effects on youth' presented at PATME2018, June 21-22, 2018 held at Radisson Blue Atakoy Hotel, Istanbul, Turkey.

5) Paper titled 'Misconception Of HIV/AIDS among Ever-Married Women and Associated Factors: A Comparison Of Non-Spatial Multilevel And Spatial Model' presented at Royal Statistical Society Conference, September 4-7, 2017 held at University of Strathclyde, Glasgow, UK

6) Paper titled 'Appraisal of Spatial and Temporal Behaviour in Monsoon Precipitation Series of Punjab-Pakistan using State-Space Dynamic Linear Model', presented at Spatial Statistics: One World One Health, July 4-7, 2017 held at Lancaster University, UK.

7) Paper titled 'Bias Correction in Monti's Portmanteau Test', presented at Mathematical and Statistical Models in Economics, Finance and Applied Sciences: Analysis and Methods, February 6-7, 2015, held at Lahore School of Economics, Lahore.

8) Paper titled 'Variable Selection and Prediction Accuracy of Shrinkage Methods, presented at Kinnaird Multidisciplinary Research conference 2013, 18-19 November 2013 held at Kinnaird College for Women Lahore.

9) Paper titled 'Quality of Life, Levels Of Stress And Burden of Care Among Caregivers Of Cancer Patients In Lahore', presented at Kinnaird Multidisciplinary Research conference 2013, 18-19 November 2013 held at Kinnaird College for Women Lahore.

10) Paper titled 'On tuning parameter selection of lasso-type methods-a Monte Carlo study' presented at 9th IBCAST 2012, 9-12 January 2012 held at National Centre for Physics, Islamabad.

11) Poster titled "Oracle properties of lasso-type methods" presented at a research workshop "Sparse structures: statistical theory and practice", 16-18 June 2010, held at University of Bristol Bristol, UK.

12) Talk titled "Oracle properties of lasso-type methods in regression problems" given in 33rd Research Students' Conference 12-15 April, 2010 held at University of Warwick, UK.

13) Talk titled "Misuses of Statistics" given in Intensive Learning and Teaching Program, December 10-15, 2009 held at University of Nottingham, UK.

14) Paper titled "Predictors of treatment failure in drug-resistant falciparum malaria in Punjab, Pakistan" presented in conference on "Recent Advances in Parasitology", 29th May, 2004, held at University of Veterinary and Animal Sciences, Lahore, Pakistan.

15) Paper titled "Predictive strength of classical risk factors of coronary artery disease in female patients in Punjab, Pakistan." Presented in "First International Conference on Statistics and Operations Research", 3-5 April, 2006, held at Institute of Statistics, University of the Punjab, Lahore, Pakistan.

16) Paper titled "Statistical study of characteristics of smoking among students of University of the Punjab, Pakistan". Presented in "First International Conference on Statistics and Operations Research, 3-5 April, 2006, held at Institute of Statistics, University of the Punjab, Lahore, Pakistan.

Conferences/Workshops Attended:

1) Participated as an expert in Workshop on Women's Economic and Social Wellbeing in Punjab, organized by Bureau of Statistics, Government of the Punjab on March 16, 2017 at P & D Department, Punjab Civil Secretariat, Lahore.
2) Participated as a member of Focus Group meeting on "Communication among Data Users / Stakeholders" organized by Bureau of Statistics, Government of the Punjab on July 29, 2016 at Lahore.
3) Participated as a member of Expert Panel recommended by the Punjab University in the Workshop for "Faculty Development Program Prioritizing Areas", Organized by HEC held on May 12, 2016 at Islamabad.
4) MMBNOTT/MRM Summer Workshop in Mathematical Medicine and Biology, 15-17 July, 2009 held at University of Nottingham, United Kingdom.
5) 31st Research Students' Conference in Probability and Statistics, 31st March - 3rd April, 2008 held at University of Nottingham, United Kingdom.
6) Academy for postgraduate teaching in Statistics week, April 7-11, 2008 held at University of Oxford, United Kingdom.
7) Academy for postgraduate teaching in Statistics week, December 10-14, 2007 held at University of Warwick, United Kingdom.

Research Collaborations:
1) Worked in collaboration with Center for Clinical Psychology as a Data Manager and Statistical Analyst on HIV/AIDS Surveillance Project in Pakistan funded by CIDA (Canadian International Development Agency).
2) Worked in collaboration with the Center of Excellence of Microfinance, Institute of Management Sciences, Peshawar, as a statistical advisor on "Causes of Delinquency in Microfinance Institutions" funded by UN.

Ph.D Research Supervision

	Name	Title	Status
1	Nuzhat Aftab (HEC Scholar)	Estimation of Covariance Matrix and Inference about Regression parameters and Autocorrelation in Heteroskedastic Regression Models	PhD awarded (2019)
2	Maqsood Ahmed	Advanced Statistical Prediction Techniques for Spatial and Spatio-Temporal Data with Environmental Applications	PhD awarded (2019)
3	Majida Rashid	Spatial And Non-Spatial Statistical Techniques With Applications to Infant Mortality Rate and Misconceptions About HIV Transmission in Punjab - Pakistan	PhD awarded (2020)
4	Muhammad Suhail (HEC Scholar)	Development and Applications of Some New Robust Ridge Estimators for Linear Regression Models Violating the Usual Assumptions	Thesis submitted
5	Zahid Javed	Modified Statistical Techniques for Modeling of Geospatial Data	Synopsis approved

6	Ahsan-ul-Haq	New Generalized Exponential-Uniform Distribution: Analysis and Applications	Synopsis approved
7	Muhammad Saqib	Power Lomax-Geometric Distribution	Synopsis approved
8	Iqra Babar	Penalized Regression in Presence of Multicollinearity, Outliers and Heteroscedasticity	Synopsis approved
9	Muhammad Aasim	Standard Growth Chart Development for Pediatric Population age (0 - 2 years): An Indigenous Mix Design Study for Pakistan	Working on synopsis

M.Phil Research Supervision

	Name	Title	Year
1	M. Asif Jamil	Time series analysis-Portmanteau tests and modeling economic time series	2011
2	Sarah Ahmad	Oracle Properties of Various Shrinkage Regression Methods	2012
3	Nuzhat Aftab	Asymptotic properties of bootstrap and heteroscedastic consistent covariance matrix estimators in regression analysis	2012
4	Abdul Rehman Naseer	Bootstrap study of properties of time series diagnostic tests	2012
5	Iram Sarwar	Coursework completed now working on research proposal	2012
6	Kashif Kausar	Modeling per capita income and measuring income inequality in Punjab: A comparative study of probability distributions	2013
7	Maria Saeed	Nonparametric bootstrap estimator and its comparison with classical ridge parameter estimators	2014
8	Anum Mahmood	Time Series Diagnostic Tests for ARCH and GARCH models	2014
9	Naz Ahmad	Generalized Rayleigh Distribution and Mixture of Poisson-Rayleigh Distribution	2014
10	Asfa Tahir	Partial Least Squares and Other Variable Selection Procedures	2014
11	Saba Shoukat	Multivariate Normality Tests and their size and power Properties	2015
12	Huma Iftikhar	Smooth Quadratic form of Box-Pierce Portmanteau test under Q-Dependence and Unconditional Heteroskedasticity	2015
13	Uzma Ashraf	Determinants of Infant Mortality in Pakistan: An application of Binary Logistic using Ordinary Least Squares and Lasso Estimates	2016

14	Iqra Babar	Comparison of Variable Selection Procedures in High-Dimensional Data Using Model Size and Variable Selection Deviation: A Simulation Study	2016
15	Muhammad Zahir	Modeling Poverty in Khyber Pakhtun khwa, Pakistan Using Shrinkage and Variable Selection Procedures	2016
16	Ayesha Hashmi	Comparative Performance of Lasso and SCAD in Variable Selection for Poisson Regression and Zero Inflated Poisson Regression Models	2016
17	Huma Shakeel	Causality between Electricity Consumption and Economic Growth in Pakistan: Time Series Modeling of Electricity Demand and Supply	2016
18	Iram Sarwar	Spatial Analysis to Measure Ground Water Parameters Contamination by using Ordinary Kriging and Co-kriging	2016
19	Fareeha Kanwal	The Discrete Lomax Distribution	2016
20	Rana Faizan Ahmed	Jack-Knife Influential Distance for Identification of Outliers in Regression Analysis	2016
21	Anam Zakir	Oracle properties and applications of robust penalized and subset regression in the presence of outliers	2016
22	Anam Iqbal	Size and power properties of Cramer von Mises test using eigen values and subsampling based critical values	2016
23	Muhammad Aasim	Meta-Analyses with Fixed and Random Effect Models: National Data Syntheses of Vitamin D Status in Pakistan	2017
24	Mahwish Ayub	Time Series Forecasting and Spatial Prediction of Wheat in Punjab, Pakistan.	2017
25	Iram Ramzan	Development of R programs for Bayesian Lasso Estimation of Autoregressive Models using MCMC	2017
26	Bushra Iqbal	Simulation-Based Comparative Study of Feature Selection Methods for High-Dimensional Data	2018
27	Muhammad Adnan	An Evidence of Cointegrating Relationship between NAV Prices of Equity Mutual Funds and Macroeconomic Variables for the Period 2009-16: A Case for Pakistan	2019
28	Atiya Ansari	A Panel Regression and Granger Causality Analysis of Tourism: A Cross-Country Study	2018
29	Aneeqa Islam	Oracle properties of penalized mode Regression and Mean Regression a Simulation Based Comparative Study.	2019
30	Ramsha Arif	Advanced Kernel Based Portmanteau Tests For Non Linear Time Series Models.	2019
31	Sumbal Manzoor	Temporal and Spatial Prediction of Sugar Production in Punjab, Pakistan	2019
32	Fida Mahy u Deen	Solution Path Efficiency and Prediction Accuracy of Shrinkage Methods in Low-High Dimensional Data	2019
33	Zahra Riaz	Naïve Bayes, Decision Tree and Random Forest Classifier for Predicting the Academic Performance	2020

		of Undergraduate Students: A Case Study of Punjab University	

BS/M.Sc. Research Supervision

	Name	Title	Year
1	Zubia Bajwa	Job satisfaction among nurses of public hospitals in Lahore, Pakistan.	2003
2	Shazia Kausar	Perception of youth about generation gap	2003
3	Fazal-e-Haq	Brain drain in medical profession in Pakistan	2004
4	Afza Rasul	Statistical study of characteristics of smoking among students of University of the Punjab	2005
5	Sajida Tufail	A statistical study of Future of Punjabi: attitude of New Generation towards Punjabi.	2005
6	Sheeba Sarwar	Statistical study of attitude of the educated youth of University of the Punjab towards Dowry: A Custom, A need or A curse.	2005
7	Aamir Raza	Time Series Analysis of the Gross Domestic Production (GDP) of Pakistan.	2006
8	M. Ashfaq Ahmad	Study of Recreational Activities of Students of PU.	2006
9	Nadia Asif	Study on Knowledge Attitude And Practice of Family Planning in Women of Township.	2006
10	Zafar Ali Bhatti	Comparative Study on the Pathogenicity of Liver Homogenate and Cell Culture Propagated.	2006
11	Saima Sadiq	Some Statistical Aspects of Hospitlization with Major Injuries.	2006
12	Mubashra Aftab	Social Class & Risk of Diabetes Related Morbidity in Punjab.	2006
13	Humaira Arif	Statistical Study on the Risk Factors of Ischemic Heart Disease.	2006
14	Beenish Jaffar	Statistical Study of the Risk Factors associated with chronic renal failure.	2006
15	Irsa Qaisar	Statistical study of the effectiveness of physiotherapy for patients of frozen shoulder	2006
16	Saeed Ahmad	A statistical study to explore the symptoms of pneumonia in children and the effectiveness of its treatment.	2006

17	Uzma Arshad Khan	Factors associated with domestic violence against women in Pakistan	2006
18	Muhammad Ashfaq Ahmad	Study of recreational activities of students of the university of the Punjab	2006
19	Safdar Ahmad Khan	Pneumonia in children: A statistical study to explore the symptoms of pneumonia and the effectiveness of treatment	2006
20	Tanzeela Shabbir	A statistical Study of Arthritis and Its Effect on the Quality of Life.	2007
21	Rabia Mumtaz	A statistical study of the factors related with type of child birth method	2007
22	Farhana Naeem	A statistical Study of Studying the Factors Effecting Self Medication.	2007
23	Abrar Ijaz	A statistical study on ''Exploring the causes of drug addiction among population of Sialkot''.	2007
24	Shajala Kausar	A statistical study on the living standard of the people in Bilal Gunj, Lahore.	2007
25	Nosheen Pervez	Domestic violence against women by their husbands.	2007
26	Nosheen zulfiqar	Assessment and statistical analysis of patient satisfaction level, visiting outpatient departments of sheikh Zayed hospital, LAH	2007
27	Huma Hameed	Statistical study on the opinion and awareness about suicide bomb blasting	2007
28	Waqas Nadeem	A statistical study of the cable TV viewer's opinion about cable TV channels.	2007
29	Sidra Shaukat	Survey on job satisfaction of the sui northern gas pipelines Ltd. Employees.	2007
30	Faiza Iqbal	A Cross-Sectional study of causes of ACNE Among Females	2011
31	Rana M. Waqar-ul-Haq	A Cross-Sectional study on Assessment of General Eating habits and Physical Growth in School children.	2011
32	Adnan Akram	Knowledge Attitude and Practices of Diabetes in Punjab University, Lahore.	2011
33	M.Ahsan-ul-Haq	Exploratory study of Facebook Usage.	2011
34	Uzma Tariq	An Investigation into University Students' Awareness about Healthy Nutrition.	2011
35	Aqsa Arif	A Gender Based Statistical Analysis of Shopping Pattern.	2011
36	Rabia Yousaf	An Exploratory Study of Factors Effecting Glaucoma.	2007

37	Fatima Javaid	Time Series Analysis of Temperature and Rain in Lahore Using SARIMA Model.	2012
38	Sonia Tariq	Job satisfaction among nurses	2012
39	Yasmin Butt	Use of Cosmetics in Female Students	2012
40	Anam Zakir	A Statistical Study on Generation Gap and Its Effects on Youth.	2012
41	Najma Naz	Effect of Lifestyle Changes on Control of Borderline Hypertension.	2012
42	Muhammad Amir	Self-Esteem, Stressful Life Event and Academic Achievement of University Students.	2012
43	Numra Gulraiz	A Statistical Study on Pattern and Extent of Internet Usage Among University Students.	2012
44	Sana Ishfaq	Consumption of Fast food Among Punjab University Students.	2012
45	Tabasum Rasul	A Statistical Study on the Views of ATM card users in university of the Punjab Lahore .	2012
46	Nabeel Aslam	A Statistical Study of Risk Factors of Angina.	2012
47	M. Babar Makhdoom	Study of Different Factors in Road Accident.	2009
48	Anam Tahir	Factors Affecting Brand Equity of Beverages Industry in Pakistan	2012
49	Mirza Ammar Baig	Factors that affect the customer loyalty Electronic Industry	2012
50	Hafiz Nasir Basheer	Time series analysis of Investment Trend in Lahore Stock Exchange	2012
51	Saba Ilyas	A statistical study on the effect of socio economic status on academic achievement of students	2012
52	Narjis Batool	Protection of health insurance	2012
53	M. Arfan Hadyait	Assessment of knowledge, attitude and practice about oral health among the 6th-10th class students	2012
54	Rana Muhammad Usman	Time series modeling and forecasting of GDP of Pakistan, Sri Lanka, India, and Bangladesh: A comparative study	2013
55	Kamran Rafiq	A statistical study on determinants of smoking among youth	2013
56	Nazia Yousaf	Work stress and burnout of employees in banking sector of Pakistan	2013
57	Afshan Khanum	Nutrition Knowledge, Attitude and Practices among University Students	2013

58	Tehreem Akram	A statistical study on levels and sources of work stress among school teachers	2013
59	Rabia Akram	A statistical study of the relationship between time-management and study habits of University students	2013
60	Habiba Majeed	The configuration of the University image and Its relationship with the satisfaction of the University students	2013
61	Hira Hameed	A statistical study about problems of Career selection in youth among Punjab University students	2013
62	Marva Maryam	A statistical study on psoriasis disability index	2013
63	Rooma Safder	A statistical study of lifestyle factors associated with over weight among University students	2013
64	Najma Naz	Statistical study of association and predictive strength of known risk factors of diabetes mellitus	2013
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66	Nabeela Arif	Influence of socio-demographic variables and motives underlying the selection of food choice	2013
67	Mavra Maryam	A Statistical Study on Psoriasis Disability Index	2013
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69	Hina Zahra	Effectiveness of Facebook Advertisement on Consumer Choice	2014
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80	M. Khizar Mushtaq Khokhar	A Statistical study on Impact of internet Usage on social and Educational activities of Punjab University, Students	2015
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82	Rabia Mukhtar	A Statistical study on views of youth about student Union	2015
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