SAJJAD HAIDER BHATTI

PERSONAL INFORMATION

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ACADEMICS

2012 **Ph.D** (Applied Statistics and Econometrics)

University of Burgundy (Université de Bourgogne), DIJON - FRANCE

2010 MS (Economics Sciences)

University of Burgundy (Université de Bourgogne), DIJON - FRANCE

- 2009 **MS (Mathematics for Information Graphics and Statistics)** University of Burgundy (Université de Bourgogne), DIJON – FRANCE
- 2006 M.Sc. (Statistics)

Bahauddin Zakariya University Multan - PAKISTAN

- 2003 **B.Sc. (Statistics, Economics, and Mathematics)** University of Punjab, Lahore – PAKISTAN
- 2001 H.S.S.C. (Statistics, Mathematics, Physics) F.B.I.S.E., Islamabad – PAKISTAN
- 1999 S.S.C. (Science)

F.B.I.S.E., Islamabad – PAKISTAN

Published Articles

- Saeed, S., Bhatti, S. H., Tanveer, Z., Akhtar, F., Ahmad, T., Raza, M. A., Khan, A., Parveen, M., & Bukhari, N. (2022). Obesity, smoking and stress: exploring correlates of stress. *Pak-Euro Journal of Medical and Life Sciences*, 5(1), 177–182.
- 2) Irfan, M., Javed, M., & Bhatti, S. H. (2022). Difference-Type-Exponential Estimators Based on Dual Auxiliary Information Under Simple Random Sampling. *Scientia Iranica*, 29(1), 343–354.
- Raza, M. A., Aslam, M., Farooq, M., Khan, R. A. S., Bhatti, S. H., & Ahmad, T. (2022). A New Nonparametric Composite Exponentially Weighted Moving Average Sign Control Chart. *Scientia Iranica*, 29(1), 290–302.
- Javed, M., Irfan, M., Bhatti, S. H., & Onyango, R. (2021). A Simulation-Based Study for Progressive Estimation of Population Mean through Traditional and Nontraditional Measures in Stratified Random Sampling. *Journal of Mathematics*, 2021, 1–16.
- Bhatti, S. H., Azeem, M., Ahmad, T., & Raza, M. A. (2021). Modified moment estimators based on non-conventional measures for the power function distribution. *Journal of Statistical Computation and Simulation*, *91*(15), 3048–3068.
- Irfan, M., Javed, M., Shongwe, S. C., Zohaib, M., & Bhatti, S. H. (2021). Estimation of Population Median under Robust Measures of an Auxiliary Variable. *Mathematical Problems in Engineering*, 2021, 1–14.
- Hussain, S., Bhatti, S. H., Ahmad, T., & Shehzad, M. A. (2021). Parameter estimation of the Pareto distribution using least squares approaches blended with different rank methods and its applications in modeling natural catastrophes. *Natural Hazards*, 107(2), 1693–1708.
- Asim, M., Aftab, M., Bhatti, S. H., Ahmad, T., Shah, S. M. A., & Akram, M. (2021). Identifying factors causing decline in physical functionality of geriatric population. *European Journal of Inflammation*, 19(1), 1–7.
- 9) Javed, M., Irfan, M., & **Bhatti, S. H.** (2021). On optimal classes of estimators in the presence of some non-sampling errors. *Journal of the National Science Foundation of Sri Lanka*, 49(2), 281–294.
- 10) Irfan, M., Javed, M., Bhatti, S. H., Raza, M. A., & Ahmad, T. (2020). Almost unbiased

optimum estimators for population mean using dual auxiliary information. *Journal of King Saud University – Science*, *32*(6), 2835–2844.

- 11) Kousar, S., Khan, A. R., Ul Hassan, M., Noreen, Z., & Bhatti, S. H. (2020). Some best-fit probability distributions for at-site flood frequency analysis of the Ume River. *Journal of Flood Risk Management*, 13(3), e12640.
- 12) 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. *Quality and Reliability Engineering International*, 36(1), 68–87.
- 13) Aftab, M., Ramzan, A., Bhatti, S. H., Ahmad, T., Raza, M. A., Shah, S. M. A., & Akram, M. (2019). Correlates of diabetic retinopathy: A case study. *Pakistan Journal of Pharmaceutical Sciences*, *32*(4 Suppl.), 1909–1912.
- 14) Aslam, M., Asif, M., Joiya, S. J., Altaf, S., & Bhatti, S. H. (2019). Establishing Growth Reference Charts for Head Circumference of the Pakistani Children, Using the Lambda-Mu-Sigma (LMS) Statistical Method. *Iranian Journal of Pediatrics*, 29(3), e84970.
- 15) Bashir, A., Shehzad, M. A., Hussain, I., Rehmani, M. I. A., & Bhatti, S. H. (2019). Reservoir Inflow Prediction by Ensembling Wavelet and Bootstrap Techniques to Multiple Linear Regression Model. *Water Resources Management*, 33(15), 121–5136.
- 16) Bhatti, S. H., Hussain, S., Ahmad, T., Aftab, M., Raza, M. A., & Tahir, M. (2019). Efficient estimation of Pareto model using modified maximum likelihood estimators. *Scientia Iranica*, 26(1), 605–614.
- 17) Tahir, M., Aslam, M., Hussain, Z., Abid, M., & Bhatti, S. H. (2019). Bayesian analysis of heterogeneous doubly censored lifetime data using the 3-component mixture of Rayleigh distributions: A Monte Carlo simulation study. *Scientia Iranica*, 26(3), 1789–1808.
- 18) Taj, S., Ashfaq, U. A., Aslam, S., Ahmad, M., & Bhatti, S. H. (2019). Alpha-glucosidase activity of novel pyrazolobenzothiazine 5,5-dioxide derivatives for the treatment of diabetes mellitus. Invitro combined with molecular docking approach. *Biologia*, 74(11), 1523–1530.

- 19) Ilyas, M., Ali, M. A., Awan, A. N., Haider, S., & Shahid, A. (2019). Estimation of noise levels in the road side parks and study of its impacts on health of visitors in Faisalabad. *Earth Sciences Pakistan*, 3(1), 14–22.
- 20) Abbas, N., Bhatti, S. H., Shahzad, T., Mahmood, F., Azeem, F., Abbas, F., Hussain, S., & Hussain, S. (2019). Spatial Distribution of Isoproturon Dissipation in Varying Agricultural Lands and Characterization of an Isoproturon Degrading Bacterial Strain S29 from Genus Sphingobium. *International Journal of Agriculture & Biology*, 21(3), 689–702.
- 21) Bhatti, S. H., Hussain, S., Ahmad, T., Aslam, M., Aftab, M., & Raza, M. A. (2018). Efficient estimation of Pareto model: Some modified percentile estimators. *PLoS ONE*, *13*(5), e0196456.
- 22) Ahmad, T., Baig, S., Aslam, S., & Bhatti, S. H. (2018). Rehospitalization and Survival Analysis of Heart Failure Patients. *International Journal of Biology and Biotechnology*, 15(2), 207–212.
- 23) Hussain, S., Bhatti, S. H., Ahmad, T., Aftab, M., & Tahir, M. (2018). Parameter estimation of Pareto distribution: some modified moment estimators. *Maejo International Journal of Science and Technology*, 12(01), 11–27.
- 24) Bhatti, S. H., Aslam, M., & Bourdon, J. (2018). Market Returns to Education in Pakistan, Corrected for Endogeneity Bias. *The Lahore Journal of Economics*, 23(1), 79–96.
- 25) Ahmad, T., Munir, A., **Bhatti, S. H.**, Aftab, M., & Raza, M. A. (2017). Survival analysis of heart failure patients: A case study. *PLoS ONE*, *12*(7), e0181001.
- 26) Bhatti, S. H., Mamuna, H. I., Aftab, M., Aslam, M., Aslam, N., Shah, S. M. A., Ahmed, H., & Akram, M. (2017). Risk factors of neonatal mortality in Faisalabad, Pakistan. *Pakistan Journal of Pharmaceutical Sciences*, *30*(2 Suppl.), 663–665.
- 27) Sherwani, R. A. K., Raza, M. A., Bhatti, S. H., Aftab, M., Ahmad, T., & Shaukat, M. S. (2017). Epidemiological Analysis of Infant Mortality in Rural Punjab of Pakistan. *Medical Forum Monthly*, 28(6), 35–39.

- 28) Abbas, N., Hussain, S., Azeem, F., Shahzad, T., Bhatti, S. H., Imran, M., Ahmad, Z., Maqbool, Z., & Abid, M. (2016). Characterization of a salt resistant bacterial strain Proteus sp. NA6 capable of decolorizing reactive dyes in presence of multi-metal stress. *World Journal of Microbiology and Biotechnology*, 32(11), 181.
- 29) Bhatti, S. H., Bourdon, J., & Aslam, M. (2013). Economic Returns to Education in France : OLS and Instrumental Variable Estimations. *The Lahore Journal of Economics Economics*, 18(2), 51–63.
- 30) Shah, A. A., & **Bhatti, S. H.** (2012). Generic Competences and Earnings for Health Graduates. *International Journal of Social Sciences and Education*, 2(3), 499–509.
- 31) Shah, A. A., Syeda, Z. F., & Bhatti, S. H. (2012). Pocket Money as a proxy for Family Income. *International Journal of Social Sciences and Education*, 2(4), 688–693.
- 32) Robustness to missing observation and optimalities of response surface designs with regular and complex structure

<u>Journal:</u> Communications in Statistics - Simulation and Computation doi: HTTPS://DOI.ORG/10.1080/03610918.2021.1977954

<u>Authors:</u> Humera Hayat; Atif Akbar; Tanvir Ahmad; **Sajjad Haider Bhatti**; Muhammad Imdad Ullah

33) An effective approach towards efficient estimation of general linear model in case of heteroscedastic errors

Journal: Communications in Statistics - Simulation and Computation doi: 10.1080/03610918.2020.1856874

<u>Authors:</u> Sajjad Haider Bhatti; Faizan Wajid Khan; Muhammad Irfan; Muhammad Ali Raza

Projects

 Higher Education Commission (HEC) NRPU Project (No. 8046) as Principal Investigator (PI)

<u>Title:</u> Statistical analysis of prevalence of disease and potential risk factors among newborns in major cities of Punjab

Amount: 0.914739 Million PKR

 Higher Education Commission (HEC) NRPU Project (No. 8070) as Co-Principal Investigator (Co-PI)

Title: Designing new nonparametric and robust control charting strategies"

Amount: 0.618274 Million PKR

Workshops

- Participated as <u>Resource Person</u> in a two-day training workshop "Statistics for Researchers and Scientists" organized by Department of Statistics, Government College University Faisalabad, Pakistan. [15-16 March 2022]
- Participated as <u>Invited Speaker (Resource Person)</u> in seminar on "Multicollinearity: Detection and Remedy" organized by Department of Economics and Statistics, Government Graduate College of Science, Faisalabad, Pakistan. [15 December 2021]
- Participated as <u>Guest Speaker (Resource Person)</u> in seminar on "Regression Analysis" organized by Department of Economics and Statistics, Government Postgraduate College of Science, Faisalabad, Pakistan. [19 June 2019]
- Participated as <u>Resource Person</u> in a training workshop "Data Visualization & Analysis with SPSS" organized by Department of Statistics, Government College University Faisalabad, Pakistan. [10-11 April 2019]
- Participated as <u>Resource Person</u> in a two-day training workshop "Data Analysis with SPSS" organized by Department of Statistics, Government College University Faisalabad, Pakistan. [13-14 February 2018]

- Participated as <u>Resource Person</u> in a two-day training workshop "Data Analysis with SPSS" organized by Department of Statistics, Government College University Faisalabad, Pakistan. [9-10 May 2017]
- Participated as <u>Resource Person</u> in a four-day training workshop "Statistics for Research" organized by Department of Statistics, Government College University Faisalabad. [10–13 March 2014]
- Participated in Two Days workshop on "Assessment in E-Learning and Quality Assurance Challenges" organized by Directorate of Quality Enhancement, Virtual University of Pakistan in collaboration with Commonwealth of Learning, Canada. [5-6 July 2021]
- Participated in training on "HANDS ON TRAINING ON NGS DATA ANALYSIS" organized by Department of Bioinformatics and Biotechnology, Government College University Faisalabad. [12-13 April 2021]
- 10) Participated in "Scientific Communication; Publications, Presentations, Project Writing" organized by Department of Bioinformatics and Biotechnology, Government College University Faisalabad. [1-5 March 2021]
- 11) Participated in International webinar on "Microbial Diversity in Changing Climate" organized by Department of Environmental, COMSATS University Islamabad, Abbottabad Campus. [30 March 2021]
- 12) Participated in 4th International Conference on "Global Environmental Changes" organized by Department of Environmental Sciences & Engineering, Government College University Faisalabad, Pakistan. [4-5 May 2017]
- 13) Participated in a training conference "Novel Vista in Computational Sciences" organized by Department of Bioinformatics and Biotechnology, Government College University Faisalabad in Collaboration with Pakistan Society for Computational Biology (PSCB). [April 2016]
- 14) Participated in an international conference on "Major Environmental Constraints to Plants: Assessment & Reclamations" organized by Department of Botany, Government College University Faisalabad, Pakistan. [28-30 March 2016]

- 15) Participated in a training workshop on "Project Formulation Workshop" organized by Pakistan Science Foundation in Collaboration with Government College Women University Faisalabad, Pakistan. [January 2016]
- 16) Attended a training workshop on "Indigenous On Campus Training for University Staff (Phase-II)" organized by Government College University Faisalabad, Pakistan in Collaboration with Higher Education Commission Islamabad. [September-October 2015]

Conferences

- 1) **Bhatti, S.H.** "Regional and Sectorial Segmentation in French Labour Market's Wage Determination Process". *10 June 2012.* 18th Journée du Savoir. La Jeunesse Musulmane de France en Bourgogne. Dijon France
- Bhatti, S.H. "A Panel Data Analysis of the Relationship between GDP per Capita and its Shares of Consumption, Government Expenditures and Investment". 7-9 November 2011. 30th Annual Conference Multivariate Statistical Association (MSA) 2011. University of Łódź. Łódź – Poland.
- Bhatti, S.H. "Production Function with Innovation A Comparison among Estimation Techniques". 19 June 2011. 17th Journée du Savoir. La Jeunesse Musulmane de France en Bourgogne. Dijon – France
- Bhatti, S.H., Legros, D. & Bourdon, J. "Estimation of Mincerian Wage Regression by Parametric and Semi-parametric Regression Approaches Using French Data". 12-14 May 2010 50th Congress of Canadian Society of Economic Science. Lac Beauport, Québec city – Canada.
- 5) Shah, A.A. Bhatti, S. H. & Ali, A. "Significance of Generic Competences in Healthcare ePortfolio". 20 June 2010. 16th Journée du Savoir. La Jeunesse Musulmane de France en Bourgogne. Dijon – France
- 6) Shah, A. A., **Bhatti, S. H**. "Role of Pocket Money in the Education Production Function". *10-13 June 2009. Summer Programme. University of Geneva. Geneva – Switzerland.*

> Other reseach work

- Sajjad Haider Bhatti. (September 2009). Report on M2R Stage Titled "Reweighting of French Engineering Schools by finding over time estimates for Stock of Engineers" presented at Faculté de Sciences Mirande, Université de Bourgogne, Dijon (France).
- 2) Sajjad Haider Bhatti. (March 2009). Research report on "Reliability of Complex Systems

in absence of Repair work" presented at Faculté de Sciences Mirande, Université de Bourgogne, Dijon (France)

 Nicolas Sarrasin and Sajjad Haider Bhatti. (February 2009). Research report on "Triangulation de surfaces implicites" presented at Faculté de Sciences Mirande, Université de Bourgogne, Dijon (France).

Training

- Participated in Training Provided by Doctoral School LISIT, University of Burgundy on "Programming in R language". [April 2011]
- Participated in Training Provided by Doctoral School LISIT, University of Burgundy on "Data Analysis with SAS". [October 2012]
- Participated in Training Provided by Doctoral School LISIT, University of Burgundy on "Writing of Thesis with Micro Soft Word 2007-10". [October 2012]
- Participated in Training Provided by Doctoral School LISIT, University of Burgundy on "Introduction to LaTeX". [October 2012]

OTHER ACADEMIC/PROFESSIONAL ACTIVITIES

- 1) Member Board of Studies (BOS) of Department of Statistics, Government College Women University Faisalabad, Pakistan.
- 2) Member Board of Studies (BOS) of Department of Mathematics and Statistics, University of Agriculture Faisalabad, Pakistan [2016-17].
- 3) Elected as executive member of Pakistan Statistical Association (Faisalabad Chapter) on 8th April 2017 for a period of 02 years.
- 4) Assessment Team (AT) member of Quality Enhancement Cell (QEC) of G.C. Women University Faisalabad for Department of Statistics.
- 5) Assessment Team (AT) member of Quality Enhancement Directorate of Bahauddin Zakariya University (BZU), Multan for Department of Statistics.
- 6) Working as Quality Enhancement Cell (QEC) Assessment Team (AT) Member for Department of Statistics, Government College University Faisalabad [since November 2017]
- 7) Worked as Departmental focal person (I.T) for Department of Statistics, Government College University Faisalabad [September 2016 February 2020].

- 8) Worked as Quality Enhancement Cell (QEC) Program Team (PT) Member for Department of Statistics, Government College University Faisalabad [September 2016 February 2020].
- 9) Member departmental admission committee for year 2016, 2017, 2018, 2019 in Department of Statistics, Government College University Faisalabad.
- 10) Worked as Internal Coordinator Exams Department of Statistics, Government College University Faisalabad (for M.Sc and M.Phil) [September 2014 October 2015].

PROFESSIONAL EXPERIENCE

- 1) Working as Associate Professor of Statistics in College of Statistical and Actuarial Sciences, University of the Punjab, Lahore.
- 2) Worked as Assistant Professor (TTS) in Department of Statistics, Government College University Faisalabad since 15th February 2013 till present.
- 3) Internship at IREDU (CNRS/Université de Bourgogne) under the supervision of Professor Jean Bourdon (from April 2009 to September 2009) for the partial fulfillment of Master 2 Research degree.
- 4) Worked as a Statistical Officer in Pakistan Medical Research Council (PMRC) from November 2007 to February 2008.
- 5) Worked as Tutor/ Instructor in Statistics in Virtual University of Pakistan from August 2007 to October 2007.
- 6) Taught intermediate and degree classes in F.G College, F-10/4, Islamabad from January 2007 to March 2007.