# **CURRICULUM VITAE**

# NIGHAT ZAHRA D/O SYED AEJAZ HUSSAIN

# **PERSONAL DETAILS:**

Spouse Name: Dr. Muhammad Kashif Ali Shah

Date of Birth: 18<sup>th</sup> February 1979

Contact No. +923334366668

Email: nighatzahra@gcu.edu.pk



# **ACADEMIC QUALIFICATIONS:**

- PhD in the year 2016 from Thammasat University Rangsit Center, Thailand.
- M.Phil in the year 2005 from GC University Lahore, Pakistan.
- M.Sc in the year 2001 from Government College Lahore, Pakistan.

#### **PhD THESIS:**

Improved Estimation Strategies of Kurtosis Parameters Using Uncertain Prior Information

# **M.Phil THESIS:**

The Forecast Models for Energy Generated, Consumed and Number of Consumers

# **M.SC THESIS:**

Selection of Suitable Forecasting Method for the Stock Price Index Data

#### **RESEARCH PAPERS:**

- Efficient Estimation Strategies for Estimating the Shape Parameters of the Birnbaum-Saunders Distribution Using Shrinkage Preliminary Test Type Estimators, Lobachevskii Journal of Mathematics, Vol. 45, No. 9, 2024 pp. 4207-4215
- Optimizing Robust Shape Parameter: Improved Methodologies for Brinbaum-Saunders Distribution, Journal of Statistical Theory and Practice, **18**, 38 (2024).
- On the Simultaneous Estimation of Weibull Reliability Functions, Proceedings of the Thirteenth International Conference on Management Science and

- Engineering Management. ICMSEM 2019. Advances in Intelligent Systems and Computing, vol 1001. Springer, Cham.
- Estimation of Kurtosis Parameters of Multivariate Populations, Statistics and Applications, Vol. 18, No. 2, 2020 (New Series), pp. 353-368
- Meta-Analysis, Pretest and Shrinkage Estimation of Kurtosis Parameters,
  Communication in Statistics-Simulation and Computation, Vol. 46 (10), 2017,
  pp. 7986-8004
- Improved Estimation of Kurtosis Parameters for Two Multivariate Populations,
  Lobachevskii Journal of Mathematics, Vol. 38, No. 1 (2017), 110-115
- The Forecast Models for Energy Generated, Consumed and Number of Consumers European Journal of Scientific Research ISSN: 1450-216X Volume 15, No 4 December, 2006 PP 432-435
- Selection of Suitable Forecasting Method for the Stock Price Index Data,
  Journal of Statistics Department of Statistics Government College University
  Lahore. Vol.10, No.1(2003) PP-39-46

#### **WORK EXPERIENCE:**

- Assistant Professor in Statistics, GC University Lahore since Nov 09, 2007 to date.
- Lecturer in Statistics, GC University Lahore from July 26 2003 to Nov 08, 2007
- Research Assistant in Department of Statistics, GC University, Lahore for about Nov 01, 2001 to May 31 2003
- Taught tutorial classes of TU-155 in Faculty of Architecture and Planning, Thammasat University Rangsit Center, Thailand.

#### **PROJECT:**

Stabilizing the Performance of Skewness Estimators by ORIC GC University, Lahore, Pakistan.

# **CONFERENCE PRESENTATIONS:**

 Presented a research study titled "Simultaneous Estimation of Kurtosis Parameters of k Univariate Normal Populations" in International Conference on Applied Statistics (ICAS) 2016 at Phuket Graceland Resort & Spa, Phuket Thailand on July 13-15, 2016.  Presented a research study titled "Simultaneous Estimation of Kurtosis Parameter from Multivariate Populations" in 14<sup>th</sup> International Conference on Statistical Sciences at Jinnah Sindh Medical University, Pakistan held on March 14-16, 2016.

#### TRAININGS RECEIVED:

- 'Advancing Teaching Excellence' Strategies for Effective Higher Education Instructions and Professional Development, Organized by Punjab Higher Education Commission, 24-26 July, 2023.
- Essential Consultancy Skill Course, Asian Institute of Technology, 19-20
  October 2015.
- Advance Faculty Professional Development Program: Ensuring Training Effectiveness from March 07-25, 2011 organized by AIT Extension Thailand.
- MT FPDP Alumni organized by Higher Education Commission Pakistan from October 12-24, 2009
- HRDC Cycle IV Training Program organized by QEC, GC University Lahore Pakistan from April 09-11, 2009
- English Communication Skill Course by GC University Lahore Pakistan from July 03 to August 31, 2007
- In Service Teacher's Training Program organized by HRDC GC University
  Lahore Pakistan from September 2005 to May 2006
- A special course of five weeks on Stochastic Processes organized by Department of Statistics GC University, Lahore in collaboration with HEC Pakistan from June 12 to July 10, 2006.
- In Service Teachers Training Course organized by GC University Lahore,
  Pakistan from April 17-22, 2006
- Project Cycle Management Workshop organized by Asia Link in Karachi Pakistan from Nov 28-30, 2005
- Faculty Development Training Program organized by Higher Education Commission Islamabad Pakistan from March 14 to June 11, 2005
- In Service Training Course organized by Higher Education Commission Pakistan from May 10 to May 15, 2004

#### **INVITED TALK:**

A talk on the topic of Impact Evaluation Manual: Simplifies Statistical Methods given at Asian Institute of Technology Thailand, May 16, 2016.

# **TRAININGS CONDUCTED:**

- One Day Workshop on Assessment in Higher Education on April 25, 2009 in Department of Statistics GC University Lahore
- Three Days Cascading Training Program on Ensuring Training Effectiveness, from Sep 12-14, 2011 in GC University Lahore.

# **CONFERENCES ATTENDED:**

- International Conference on Applied Statistics 2016, dated July 13-15, 2016, organized by Department of Mathematics and Statistics, Thammasat University, Thailand.
- 14<sup>th</sup> International Conference on Statistical Sciences, dated March 14-16, 2016, jointly organized by Jinnah Sindh Medical University Pakistan and Islamic Countries Society of Statistical Sciences.
- International Conference on Statistical Sciences 2015, dated July 15-17, 2015, organized by KMUTT Thailand.
- 19<sup>th</sup> Annual Meeting in Mathematics 2014, dated March 20-22, 2014 organized by Department of Mathematics and Statistics, Thammasat University Thailand.
- International Conference on Applied Statistics 2013, dated May 14-19, 2013 organized by Department of Mathematics Mahasarakham University Thailand.
- 5<sup>th</sup> International Conference on Statistical Sciences, Mathematics, Statistics & Applications 2009, from January 23-25, 2009 organized by National College of Business Administration & Economics and Islamic Countries Society of Statistical Sciences (ISOSS)
- One Day Symposium on Mathematical Statistics & Real Data Analysis on November 01, 2008 organized by Department of Statistics Lahore College for Women University, Lahore
- International Conference on Statistical Sciences with Special Reference to Survival Data Analysis 2007, from November 7-8, 2007 organized by Department of Statistics GC University, Lahore in collaboration of Higher Education Commission (HEC) and Pakistan Science Foundation.

- International Conference on Statistical Data Produced and Applications of Statistics 2007 from September 3-5, 2007 organized by College of Statistical and Actuarial Sciences, University of the Punjab, Lahore
- 1<sup>st</sup> International Conference on Statistics and Operation Research 2006 from April 3-5, 2006 organized by Institute of Statistics University of the Punjab, Lahore.
- 1<sup>st</sup> National Conference on Statistical Sciences October 18, 2003 organized by Department of Statistics GC University, Lahore.

# **DUTIES BEING PERFORMED:**

Teaching at M.Phil, M.Sc and Graduation levels in GC University, Lahore, following is the list of courses taught;

Level	Course Title
M.Phil	Regression Methods, Linear Models
BS STATISTICS	Econometrics, Regression Analysis,
	Non-Parametric Methods, Categorical
	Data Analysis, Introduction to
	Hypothesis Testing, Introduction to
	Probability Theory, Basic Statistical
	Inference, Applied Statistics, Basic
	Statistics with MS-Excel
BS (Banking &	Introductory Statistics, Basic
Finance,	Statistical Inference, Applied
Economics,	Statistics, Quantitative Reasoning,
International	Introduction to Probability and
Relations, Media	Probability Distributions
Communication,	
Medical	
Laboratoy,	
Psychology,	
Political Science,	
Electrical	
Engineering)	

#### **ADMINISTRATIVE ASSIGNMENTS PERFORMED:**

- 1. B.A / B.Sc. Program Coordinator
- 2. Program Team Leader Quality Enhancement Cell
- 3. In-charge Office Work at Departmental level
- 4. Member Proctorial Board
- 5. Member Faculty Evaluation
- 6. Supervisor University Class Work
- 7. Girls Students Advisor Department of Statistics

# **RESEARCH WORK SUPERVISED:**

#### BS (Hons)/ M.Sc.

- A Case Study based on Post Covid Health Complications in Patients of Fatima Memorial Hospital Lahore, Nayyer Waseem, Roll No. 3030-BS-STAT-21
- 2. A Case Study Based on Breast Cancer Patients of Fatima Memorial Hospital Lahore, Alishba, Roll No. 3040-BS-STAT-21
- An Internship Report on the Analysis of the Production of Chari Fodder Data from Crop Reporting Service, Punjab, Marriam Akbar, Roll No. 3026-BS-STAT-21
- 4. An Analysis of the Yield of Potatoes Data from Crop Reporting Service, Punjab, Saiba Ghulam Nabi, 3039-R-BS-STAT-21
- 5. Time Series Analysis of the Yield of Maize Crop Data from Crop Reporting Service, Punjab, Shaher Bano, Roll No. 3013-R-BS-STAT-21
- 6. An Internship Report on the Analysis of the Yield of Tomatoes Data from Crop Reporting Service, Punjab, Rizwa Khan, Roll No. 3033-BS-STAT-21
- 7. An Analysis of the Yield of Mangoes Data from Crop Reporting Service, Punjab, Mishal Akram, 3009-BS-STAT-21
- 8. An Analysis of the Vitamin D Deficiency among Prenatal and Postpartum Mothers Consulting Fatima Memorial Hospital Lahore, Maliha Fatima & Maryam Imran, Roll No. 3006-BS-STAT-21 & 3071-BS-STAT-21
- 9. Time Series Analysis of the Production in Footwear Industry: A Data Set from Bureau of Statistics Punjab, Ayesha Waseem, Roll No. 3004-BS-STAT-21
- 10. An Internship Report on the Growth Rate of Service Sector Data from Bureau of Statistics Punjab, Bisma Malik, Roll No. 3007-BS-STAT-21

- 11. An Analysis of the Production of Cotton Textile Industry: A Data Set from Bureau of Statistics Punjab, Maria Hassan, Roll No. 3044-BS-STAT-21
- 12. Cotton Yield Analysis: A Data Set taken from Bureau of Statistics Punjab, Aiman Anjum, Roll No. 3062-BS-STAT-21
- 13. An Analysis of Clinker and Cement Industries Data of the Punjab Pakistan, Rabia Iqbal, 1348-BH-(E)-STAT-20
- 14. A Time Series Analysis of Enrollment in Commercial Training Institutes of the Punjab Pakistan, Ammara Saeed, 1343-BH-(E)-STAT-20
- 15. Multiple Regression Analysis on Main Crops of Pakistan, Misbah Arshad & Sadia, Roll No. 1513-BH-STAT-19 & 1509-BH-STAT-19
- 16. Analysis of Risk on Health of People Due to Smog (A Study based on Lahore)
- 17. Model Building and Forecasting of Production of Citrus Fruit in Pakistan
- 18. Analysis of Factors Affecting Production of Wheat, Rice and Cotton in Pakistan by using Regression Analysis
- 19. Model Building and Forecasting of Pakistan's Leather Exports.
- 20. Selection on Suitable Forecast Models for the Consumption of Crude Oil, Natural Gas and Coal
- 21. Analysis of Factors Affecting the Production of Kinnow (Citrus) in Punjab Pakistan
- 22. The Forecast Models for Number of Electricity Consumers by Economic Group, M.Sc Student.
- 23. Factors Contributing Towards Stress Among Lady Doctors, Unmarried and Married, M.Sc Student.
- 24. Selection of the Suitable Forecast Model for Daily Gold Price Data, M.Sc Student.
- 25. Attitude of Students Towards Self Medication: A Case Study Based on GC University, Lahore. M.Sc Student.
- 26. Bank Credit to Public and Private Sector: An Econometric and Time Series Empirical Study, M.Sc Student.

#### **MPhil**

- Factors Contributing to Anxiety Disorders Among University Students, Misbah Abaidullah, 0559-MPHIL-STAT-21
- 2. Survey Research Based on the Factors Affecting the Children, Living in Orphanage, Mariyam Kashaf Jamil, Roll No. 0567-MPHIL-STAT-21

- 3. A Comparison of Various Estimation Strategies Related to Pareto Distribution: A Numerical Study, Syed Ali Rehbar, Roll No. 0581-R-MPHIL-STAT-20
- 4. Joint Estimation of Skewness and Kurtosis using Non-Sample Information (NSI), Hamna Ehsan, Roll No. 0558-MPHIL-STAT-18
- 5. On the Improved Estimation of Cronbach's Alpha Using Non-Sample Information, Faiz-e-Alam Saeed, Roll No. 0569-R-MPHIL-STAT-16
- 6. Short and Long Run Dynamics of Production and Yield of Cotton for Punjab Pakistan
- 7. Selection of Suitable Forecast Model of Daily Call Volume for Rescue 1122
- 8. Regression Analysis of Production of Small Medium Enterprises (SME's) in Punjab Pakistan
- 9. Existing Situation and Consumer Preferences to Pay for Improved Water Supply and Satisfaction with Sanitation Services (A Case Study Based on Iqbal Town Lahore)
- Selection of Suitable Forecast Model for Consumption Transmission of Natural Gas
- 11. Factors Affecting the Child Mortality in Punjab Pakistan using Binary Logistic Regression (A Region wise Comparison)
- 12. A Statistical Assessment of the Role of Community's Learning and Living Environment to Determine Literacy Rate (A Tehsil/Town Level Study of Punjab Pakistan)

#### **OTHER SKILLS:**

Command on Statistical Softwares e.g. SAS, R, SPSS, Eviews.I have also passed all the modules of **International Computer Driving License (ICDL)** and hold its certificate.

#### **REFERENCES:**

# • Prof. S. Ejaz Ahmed

Distinguished Professor Brock University, St. Catharines, ON, Canada

# • Dr. Kamon Budsaba

Associate Professor and Director PhD Program

Department of Mathematics and Statistics

Thammasat University (Rangsit Center)

Khlong Luang, Pathumthani, 12120

# • Dr. Supranee Lisawadi

Assistant Professor and Advisor

Department of Mathematics and Statistics

Thammasat University (Rangsit Center)

Khlong Luang, Pathumthani, 12120