# DR. MUHAMMAD AMAN ULLAH Professor & Chairman, Department of Statistics, Bahauddin Zakariya University, Multan (Pakistan)



HEC Approved Supervisor

#### **Contact Information:**

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Address: Bahauddin Zakariya University, Multan 60800 (Pakistan)

A-2 Staff Colony, B. Z. University, Multan.

#### Summary of Skills

• Over **30** years of experience in teaching *Postgraduate and graduate courses* 

Proficiency in using Statistical Analysis Software Packages

Over 30 years of experience in teaching Social Statistics in Behavioral Sciences

### **Education:** Bahauddin Zakariya University, Multan (Pakistan):

■ *Ph.D. Statistics* (2012)

■ *M.Sc. Statistics* (1990)

#### **Academic appointments:** Bahauddin Zakariya University, Multan (Pakistan):

April 19, 2014 to to-Date

November 09, 2012 to April 18, 2014

March 30, 2002 to November 08, 2012

March 22, 1994 to March 29, 2002

Letter 1995 April 1

**Professor**, Department of Statistics

**Associate Professor**, Department of Statistics **Assistant Professor**, Department of Statistics

Lecturer, Department of Statistics,

#### Honors and Awards:

- M. Sc (Statistics) First Position in the University and award Gold Medal (1990)
- Member ISOSS
- Member Royal Statistical Society

# Member of University Authorities:

- Member, Syndicate, BZU, Multan (07-02-2023 to to-date)
- Member, Senate, BZU, Multan (2000 to 2004)
- Member, Syndicate, BZU, Multan (2009 to 2012)
- Member, Finance & Planning Committee, BZU (Aug. 2018 to 2020)
- Member, University Academic Council (April. 2014 to to-date)
- Member, Board of Faculty, BZU (April. 2014 to to-date)
- Member, Board of Studies (Nov. 2012 to to-date)
- Chairman, Affiliation Committee (July 2017 to July, 2019)
- Member Discipline Committee, BZU (Oct. 2011 to Jan. 2020)

### Member of University Authorities Other than B. Z. University

- Member Academic Council, University of Okara
- Member Selection Board, G. C. University, Faisalabad
- Member Selection Committee, MNS University of Agriculture, Multan
- Member Selection Committee, The Emerson University, Multan
- Member Board of Studies in Statistics, University of the Punjab, Lahore
- Member Board of Studies in Statistics, Sargodha University, Sargodha
- Member Board of Studies, Quaid-E-Azam University, Islamabad
- Member Board of Studies, The Women University, Multan
- Member Board of Studies, Emerson University, Multan
- Member Board of Studies, University of Gujrat, Gujrat

#### Administrative Experience:

- Chairman, Estate & Security Management Committee
- Chairman, Library Committee, BZU
- Chairman, Department of Statistics (March, 2021 to to-date)
- Controller of Examinations, BZU (Jan., 2020 to to-date)
- Chairman, Department of Statistics (April, 2015 to April, 2018)
- Director Students Affairs, B. Z. University, Multan (Jan., 2019 to Jan. 2020)
- Controller of Examinations (December, 2014 to Oct., 2015)
- Superintendent (Hamza Hall Hostel) Dec. 2001 to 2004
- Assistant Superintendent (Usman Hall Hostel) Dec. 1994 to 2000
- Superintendent (Usman Hall Hostel) April, 2004 to August 2007
- Resident Officer (October, 2011 to Jan., 2015)

# Member of Various other University Bodies:

- Member House Allotment Committee (BZU) (Dec., 2016 to to-date)
- Member Advanced Studies & Research Board (BZU)
- Member University Farm Management Committee (2009 to 2012)
- Member University Library Committee (2009 to 2012)

#### Students Supervised: Bahauddin Zakariya University, Multan, Pakistan:

#### Served as Supervisor for the Ph.D. theses in Statistics

Sr. #	Name	Title	Status
1	Muhammad Amin	Influence Diagnostic Methods in Generalized Linear Models with Biased Estimators	Completed
2	Muhammad Kashif	New Diagnostic Methods for Influential Observations in Linear Regression with some Biased Estimation Methods	Completed
3	Muhammad Arslan	Statistical Monitoring and Gauging of Indigenous Sheep Found in Southern Punjab, Pakistan	Completed (viva voce pending)
4	Ms. Aamna Khan	Influence Diagnostic Methods in Poisson Regression Models with Biased Estimators	Completed
5	Mr. Ansar Abbas	Application of Artificial Neural Network and Chi Square Automatic Interaction Detection on Biological Data	Completed

6	Ms. Javeria Khaleeq	Diagnostic Tools for Fitting Some Generalized Linear Models with Censored Data	Completed
7	Nimra Afzal	A New Dawoud-Kibria (D-K) Class Estimator for the Discrete Regression Models with Multicollinear Regressors	Completed
8	Ms. Samia Nadeem	Influence Analysis for Logistic Regression Model in the Presence of Multicollinearity	In Progress
9	Najeeb Mahmood Khan	Influence Diagnostics in Semiparametric Regression Models with Biased Estimation Methods	In Progress

# Served as Supervisor for the M. Phil thesis in Statistics

Sr. #	Name of Scholar	Subject	Year	Date of Defense	Title of Research Thesis
1	Abdul Hameed	Statistics	2012-14	21-01-2014	Application of Influence of Functions for Influence Diagnostics in Gamma Regression
2	Rashid Khalil	Statistics	2012-14	21-01-2014	Gamma Ridge Regression a Simulation Study
3	Rabia Naz	Statistics	2012-14	21-01-2014	Use of Adjusted Residuals for the identification of Outlier in Gamma Regression
4	Anwar Muneer Tarar	Statistics	2012-14	21-01-2014	Statistical Investigation of Eye Diseases in Multan
5	Syeda Maryan Siddiqa	Statistics	2013-15 (Spring)	18-02-2015	Inverse Gaussian Ridge Regression: A Simulation Study
6	Liaqat Ali	Statistics	2013-15 (Spring)	18-02-2015	Liu Estimator in Gamma Regression Models
7	Khadija Kanwal	Statistics	2014-16	25-07-2015	Model Estimation with Co-existence of Multicollinearity and Outliers
8	Fatima Zahra	Statistics	2014-16	25-07-2015	Application of Various Statistical Techniques in Modeling and Forecasting of Road Accidents
9	Madiha Javid	Statistics	2014-16	25-07-2015	Water Quality of District Lodhran: A Statistical Analysis
10	Shaista Riaz	Statistics	2014-16	25-07-2015	Outlier Detection in Academic Achievements: A Case Study of BZU, Multan.
11	Narmeen Jameel	Statistics	2014-16	25-07-2015	Application of Various Statistical Techniques in Modeling and Forecasting of Patients Influx at Cardiology Hospital, Multan
12	Saddam Hussain	Statistics	2014-16	25-07-2015	Application Queue Models to Compare the Service Performance of HBL and UBL
13	Hina Malik	Statistics	2014-16	25-07-2015	A Statistical Investigation to Find out the Eye Disease Risk Factor
14	Muhammad Qasim	Statistics	2015-17	03-08-2016	Performance of Some Ridge Estimators in Gamma Response Model: A Simulation
15	Nauman Saleem	Statistics	2015-17	03-08-2016	Influence Diagnostics in the Logistic Regression with Ridge Estimator
16	Zeest Zubair	Statistics	2015-17	03-08-2016	Detection of Outliers and Influential Observation with Modified Ridge Regression A: Simulation Study
17	Madhia Anwar	Statistics	2015-17	03-08-2016	Robust Modified Ridge Regression Based on M. An Estimator
18	Samreena Ghaffar	Statistics	2015-17	03-08-2016	Quality of Demographic Data in District Vehari

19	Naheed Khatoon	Statistics	2015-17	03-08-2016	The Efficiency of Principal Component and Liu Type Regression Estimators: A Comparison
20	Sidra Manzoor	Statistics	2015-17	03-08-2016	Modified Ridge Estimator and Diagnostic Methods in Regression Models with AR(1) Errors and Stochastic Linear Restrictions
21	Ayesha Naseem	Statistics	2016-18	02-10-2017	A Simulation Study of Least Square and Almost Unbiased Liu Estimator for Normal and Non- normal Autocorrelated Disturbances
22	Nimra Afzal	Statistics	2016-18	02-10-2017	A Simulation Study of Least Square and Liu Estimator for Normal and Non-normal Autocorrelated Disturbances
23	Raisa Javeed	Statistics	2016-18	02-10-2017	Diagnostic Methods in Ridge Regression with Sampling Weights
24	Ahad Yasin	Statistics	2016-18	02-10-2017	Modified Ridge Estimators for Gamma Response Model
25	Muhammad Zeeshan	Statistics	2016-18	02-10-2017	On Liu Parameters in Logistic Regression
26	Rehana Hussain	Statistics	2016-18	02-10-2017	Modified Ridge Estimation in Linear Models with Auto Correlated Errors
27	Wajiha Serwat	Statistics	2016-18	02-10-2017	A Simulation Study of Least Square and Modified Ridge Estimator for Normal and Non-normal Auto- correlated Disturbances
28	Rafe Bilal	Statistics	2017-19	03-01-2020	Element Slope Method to Detect Several Outliers in Ridge Regression
29	Marriam Bashir	Statistics	2017-19	03-01-2020	An application of Regression Analysis to Study the Impact of Climate Changes on the Agriculture of Pakistan
30	Muhammad Abu Bakar Sher	Statistics	2017-19	10-01-2020	Logistic Regression with some Probability Distributions to Predict Rainfall in Punjab
31	Huma Shahid	Statistics	2017-19	03-01-2020	An Unbiased Cp Criterion for Multivariate Modified Ridge Regression
32	Arsheen Tahir	Statistics	2017-19	03-01-2020	Performance of Some Liu Estimators for Multinomial Logit Model
33	Hina Nasir	Statistics	2017-19	23-01-2020	Developing Almost Unbiased Ridge Regression Estimator for the Inverse Gaussian Regression Model
34	Musawara Shehzad	Statistics	2017-19	10-01-2020	Unbiased CP Criterion of Multivariate Liu Estimator
35	Sidra Rafiq	Statistics	2018-20	19-02-2021	A New Biased Estimator based on Modified Ridge Estimation
36	Mishal Zaman	Statistics	2018-20	19-02-2021	Performance of Shrinkage Parameters in Zero Inflated Poisson Model with Modified Ridge Estimate
37	Shehla Kanwal	Statistics	2018-20	18-02-2021	Renovated Scatterplots in Ridge Regression for Censored Data
38	Maham Javed	Statistics	2018-20	22-02-2021	Modified Liu-Type Estimation for Zero Inflated Negative Binomial Regression
39	Muhammad Asif	Statistics	2018-20	22-02-2021	Stein-Type Estimator for Poisson Regression Model
40	Sajjad Qaisar	Statistics	2018-20	22-02-2021	Liu estimate in Zero Inflated Poisson Regression Model

41	Sumaira Atta	Statistics	2018-20	22-02-2021	Two Parameter Liu Estimator in the Binary Logistic Regression
42	Muhammad Zeeshan	Statistics	2020-22	07-10-2022	New Modified biased estimator for zero infl inflated Poisson regression model
43	Sameena Bibi	Statistics	2020-22	07-10-2022	Influence Diagnostic method in Poisson regression model With Modified Kibria- Lukman
44	Iqra Ishfaq	Statistics	2020-22	07-10-2022	Diagnostic Methods in Poisson Regression Model with Poisson Kibria-Lukman Estimator
45	Khunsa Rasheed	Statistics	2020-22	07-10-2022	Prediction of Preterm Birth based on logistic regression and decision tree methods
46	Muhammad Naeem	Statistics	2020-22	07-10-2022	A New Modified Two Parameter Estimator for Poisson Regression Model in the Presence of Multicollinearity
47	Nimra Shaheen	Statistics	2021-23	22-09-2023	On the Kibria-Lukman Estimation of Zero-Inflated Poisson Regression Model in the Presence of Multicollinearity
48	Amna Afzal	Statistics	2021-23	22-09-2023	A modified Liu Estimator with Bell Regression
49	Mah Noor Ahmad	Statistics	2021-23	22-09-2023	Modified Kibria-Lukman Estimator for the Conway-Maxwell Poisson Distribution in the Presence of ill Conditioned Data
50	Sania Fida	Statistics	2021-23	22-09-2023	Childhood Vaccination Coverage Survey in Slums: A Case Study of Multan and Khanewal Districts of Punjab (Pakistan)
51	Anwash Maqsood	Statistics	2021-23	22-09-2023	Analysis of Neural Network Models for the Prediction of NO <sub>2</sub> and PM <sub>2.5</sub> Conections, compared with a Regression Model System in Multan, Pakistan
52	Misbah Basheer	Statistics	2021-23	22-09-2023	A New Estimator Combining the Liu Regression and the Restricted Least Squares method of Estimation
53	Hamna Muneer	Statistics	2021-23	22-09-2023	The Kibria-Lukman Estimator for Negative Binomial Regression Model in the Presence of Multicollinearity
54	Tahira Zahoor	Statistics	2022-24		Yet to Finalized
55	Daman-E- Zahra	Statistics	2022-24		Yet to Finalized
56	Muhammad Imtiaz	Statistics	2022-24		Yet to Finalized
57	Mehwish Naz	Statistics	2022-24		Yet to Finalized
58	Huma Javaid	Statistics	2022-24		Yet to Finalized

- Served as an advisor for the Undergraduate program in BS Statistics students
- Served as an advisor for the Postgraduate program in M.Sc. Statistics students
- Served as an advisor for the Postgraduate program in M.Sc. Applied Psychology students

## Research Publications: 61

				HEC				e No.	
s. #	Year	Title of Paper	Journal	Category (W,X,Y,Z) / Impact Factor	Vol. No.	Iss ue No.	Fro m	То	
1	2022	Dawoud–Kibria Estimator for the Logistic Regression Model: Method, Simulation and Application	Iran J Sci Technol Trans Sci	Impact Factor	_		org/10. 22-0135		
2	2021	Influence Diagnostics in Log- Normal Regression Model with Censored Data	Mathematical Problems in Engineering	Impact Factor	https		org/10.		
3	2021	A New Modified Ridge-Type Estimator for the Beta Regression Model: Simulation and Application	Mathematics	Impact Factor	7	1	1035	1057	
4	2021	Influence diagnostics in Log-Logistic regression model with censored data	Alexandria Engineering Journal	Impact Factor	doi.o	_	016/j.ac 5.097	ej.2021.	
5	2021	Morphological Indices and Simple Regression to Predict Live Body Weight from Morphological Traits of Indigenous Sheep	Pakistan Jour. Zool	X			1	4	
6	2021	Application of CHAID Algorithm for the Identification of Morphological Traits of Indigenous Sheep Body Weight	Proceedings of the Pakistan Academy of Sciences	X	57	2	75	80	
7	2021	Influence Diagnostics for the Poisson Regression Model using Two-Parameter Estimator	Alexandria Engineering Journal	Impact Factor		60	4745	4759	
8	2021	Poisson Regression Diagnostics with Ridge Estimation	Communication in Statistics-Simulation and Computation	X	doi.o:	0.	.080/03 1955262		
9	2021	Modified Ridge-Type Estimator for the Inverse Gaussian Regression Model	Communication in Statistics- Theory and Methods	Impact Factor	doi.o	_	.080/03 197077		
10	2021	Body weight prediction using different data mining algorithms in Thalli sheep: A comparative study	Veterinary World	Impact Factor		veterinaryworld.org/Vol.14 /September-2021/6.pdf			
11	2021	James Stein Estimator for the Inverse Gaussian Regression Model	Iran J. Sci. Technol Trans Sci.	Impact Factor		45	1389	1403	
12	2021	Influence Diagnostics Methods in Poisson Regression Model with the Liu Estimator	Computational Intelligence and Neuroscience	Impact Factor	doi.org/10.1155/2021/440 7328				
13	2020	Performance of Some Ridge Estimators for the Gamma Regression Model	Statistical. Papers	Impact Factor		61	997	1026	

14	2020	Diagnostic Techniques for the Inverse Gaussian Regression Model	Communication in Statistics- Theory and Methods	Impact Factor	doi.org/10.1080/0361092 .2020.1777308			
15	2020	Two-Parameter Estimator for the Inverse Gaussian Regression Model	Communication in Statistics- Simulation and Computation	Impact Factor	doi.org/10.1080/03610918			
16	2020	On the James-Stein Estimator for the Poisson Regression Model	Communication in Statistics- Simulation and Computation	Impact Factor	doi.c	0.	1080/03 .177585	
17	2020	Almost unbiased ridge estimator in the gamma regression model.	Communications in Statistics-Simulation and Computation	Impact Factor	doi.c	_	1080/03 .172283	
18	2019	Influential diagnostics with Pena's statistic for the modified ridge regression	Communications in Statistics-Simulation and Computation	Impact Factor	Published online			
19	2019	Performance of Asar and Genç and Huang and Yang's two-parameter estimation methods for the gamma regression model	Iranian Journal of Science and Technology Transaction A:Science	Impact Factor	43	6	2951	2963
20	2019	Influence Diagnostics in Gamma Ridge Regression Model.	Journal of Statistical Computation and Simulation	Impact Factor	89	3	536	556
21	2018	On the Performance of Some New Liu Parameters for the Gamma Regression Model.	Journal of Statistical Computation and Simulation	Impact Factor	88	16	3065	3080
22	2018	Pena's statistic for the liu Regression	Journal of Statistical Computation and Simulation	Impact Factor	88	13	2473	2488
23	2018	Monitoring Yarn Count Quality Using Xbar-R and Xbar-S Control Charts.	Proceedings of the Pakistan Academy of Sciences: A. Physical and Computational Sciences	X	55	1	96	106
24	2017	On Inference of the Linear Regression Model with Groupwise Heteroscedasticity	Pakistan Journal of Statistics and Operations Research	X	13	2	265	276
25	2017	Bone Diseases: Prevalence and Associated Factors in the Population of District Multan, Pakistan	Journal of Med. Sci.	Y	25	1 Sup p.	179	186

26	2016	Quality variation Minimizer: A New Approach for Quality Improvement in Textile Industry	Pakistan Journal of Scientific and Industrial Research Series A: Physical Sciences	X	59	2	109	113
27	2016	Dental Caries, Periodontal Disease and their Associated Factors among Patients visiting Dental Teaching Hospital in Multan, Pakistan	Journal of the Pakistan Dental Association	Y	25	3	98	102
28	2016	Influence Diagnostics in Gamma Regression Model with Adjusted Deviance Residuals	Communication in Statistics- Simulation and Computation	Impact Factor	46	9	6959	6973
29	2016	Empirical Evaluation of the Inverse Gaussian Regression Residuals for the Assessment of Influential Points	Journal of Chemometrics	Impact Factor	30		394	404
30	2015	HCV; Prevalence in the Population of District Multan Pakistan	The Professional Medical Journal	X	22	5	567	570
31	2015	Study is about the prevalence of the HCV disease and survival of HCV patients with associated factors in the population of District Multan	Pakistan Journal of Pharmaceutical Sciences	Impact Factor	28	5	1807	1810
32	2014	Time Series Modeling to Forecast Wheat Production of Pakistan	The Journal of Animal and Plant Sciences	Impact Factor	24	5	1444	1451
33	2014	Identification of Cotton Properties to Improve Yarn Count Quality by Using Regression Analysis	Pakistan Journal of Scientific and Industrial Research	X	57	3	167	171
34	2014	Type of TB Category and Associated Factors in Multan	Professional Medical Journal	X	21	4	659	666
35	2014	Influence in the Elliptical Modified Ridge Regression	Communication in Statistics- Theory and Methods	Impact Factor	43	21	4650	4667
36	2014	Salt-induced Variations in Physiological Parameters and Nutrient Concentrations of Two Wheat Cultivars	Communication in Soil Science and Plant Analysis	Impact Factor	45		29	41
37	2014	Genetic dissection of yield and its components in upload cotton (Gossypium hirsutum L.)	International Journal of Animal Breeding and Genetics	Impact Factor	3	07	001	005
38	2013	Evaluation of Livestock Data Using Multivariate Analysis Techniques	Pakistan Journal of Life and Social Sciences	Y	11	3	208	211
39	2013	Non-Liner Regression Models to Predict the Lamb and Sheep Weight Growth	Pakistan Journal of Nutrition	Y	12	9	865	869

40	2013	The Cluster Analysis, BMI Status and Dietary Habits of the Patients with Thyroid Disorder in Pakpattan, Pakistan	Pakistan Journal of Nutrition	Y	12	7	642	646
41	2013	Prevalence of Neonatal Diseases in Multan Region, Pakistan	Pakistan Journal of Nutrition	Y	12	6	544	548
42	2013	Comparative Analysis of Cotton Yarn Properties Spun on Pneumatic Compact Spinning Systems	Fibres & Textile in Eastern Europe	Impact Factor	21	5 (101 )	30	34
43	2013	Boron Requirement of Irrigated Cotton in a Typic Haplocambid for Optimum Productivity and Seed Composition	Communication in Soil Science and Plant Analysis	Impact Factor	44	8	1293	1309
44	2013	Assessing Influence on the Liu Estimates in Linear Regression Models	Communication in Statistics- Theory and Methods	Impact Factor	42		2400	2416
45	2013	Local Influence Diagnostics in the Modified Ridge Regression	Communication in Statistics- Theory and Methods	Impact Factor	42		1851	1869
46	2012	Physiological and Molecular Response of Wheat to Soil-Applied Encapsulated Calcium Carbide under Salinity Stress	Journal of Plant Nutrition	Impact Factor	35		874	888
47	2012	Investigation of Specific Energy Consumption and Possible Reduction Measures of Textile Spinning Mills	Journal of American Science	Impact Factor	8	6	535	542
48	2012	Measurement System Analysis for Yarn Strength Spinning Process	International Research Journal of Finance and Economics	Y	82		131	141
49	2012	Spatial and Temporal Infestation of Mango Bark Beetle, Hypocryphalus Mangiferae Stebbing (Coleoptera: Curculionidae) Found on Mango Sudden Death Trees in Orchards	Pakistan Journal of Zoology	Impact Factor	44	6	1545	1553
50	2012	Utilization of Nigella sativa L. Essential Oil to Improve the Nutritive Quality and Thymoquinone Contents of Baked Products	Pakistan Journal of Nutrition	Y	11	10	812	817
51	2011	Impact of Boron Fertilization on Dry Matter Production and Mineral Constitution of Irrigated Cotton	Pakistan Journal of Botany	Impact Factor	43	6	2903	2910
52	2011	Farm Forestry in Pakistan: An Application of Theory of Planned Behavior by Probing into the Measurement Issues	Pakistan Journal of Botany	Impact Factor	43	1	705	714
53	2011	Impact Analysis for Regression Models with Heteroscedastic Errors	Pakistan Journal of Social Sciences (PJSS)	Y	31	2	369	384

54	2011	Nonparametric Regression Estimation for Nonlinear Systems: A Case Study of Sigmoidal Growths	Pakistan Journal of Social Sciences (PJSS)	Y	31	2	413	422
55	2011	Determinants of Economic Growth in Asian Countries: A Panel Data Perspective	Pakistan Journal of Social Sciences (PJSS)	Y	31	1	145	157
56	2010	Study of Correlation among yield related traits and path coefficient analysis in rice (Oryza Sativa L.)	African Journal of Biotechnology	Impact Factor	9	46	7853	7856
57	2010	An Appraisal of the use of Reciprocal Transfer Experiments: Assessing the Stages of Photoperiod Sensitivity in Antirrhinum Majus L.	Pakistan Journal of Botany	Impact Factor	42	3	1931	1940
58	2009	Impact of Zinc Fertilization on Gas Exchange Characteristics and Water use Efficiency of Cotton Crop under Arid Environment	Pakistan Journal of Botany	Impact Factor	41	5	2189	2197
59	2009	Evaluation of Biochemical and Phytochemical Composition of Some Groundnut Varieties Grown in Arid Zone of Pakistan	Pakistan Journal of Botany	Impact Factor	41	6	2739	2749
60	2009	The Origin and Developments of Influence Measures in Regression	Pakistan Journal of Statistics	Impact Factor	25	3	295	307
61	2007	Survival analysis of cancer patients using parametric and non-parametric approaches	Pakistan Veterinary Journal	Impact Factor	27	4	194	198

## Field of Interest:

- Applied Statistics, Linear Models and Regression Analysis,
- Population Studies,
- Design and Analysis of Experiments
- Regression Diagnostics