

Curriculum Vitae of M. M. Rahman

Curriculum Vitae

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1 Introduction

1.1 Personal Information

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Date of Birth : 10th July, 1984
Sex : Male
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Citizenship : Bangladesh by birth
Passport No. : A12641406
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ResearchGate : <https://www.researchgate.net/profile/Md-Mahabubur-Rahman>
Google Scholar : <https://scholar.google.com/citations?user=GpJsqPoAAAAJ>
Department : <https://www.iu.ac.bd/index.php/site/dept/STC>

1.2 Specialization

Major Fields of Specialization : Statistics

1.3 Areas of Research Interest

Primary : Statistical Distributions (Theory and Applications)
Secondary : Transmuted Probability Distributions
Industrial Statistics
Machine Learning
Data Science

2 Essential Background

2.1 Education

- 2016-2019 : Ph.D. in Statistics (2019)
Excellent Grade
Department of Statistics
King Abdulaziz University
Jeddah 21589, Kingdom of Saudi Arabia
- 2005-2006 : M.Sc. in Statistics (2006)
First Class
Department of Statistics
Jahangirnagar University
Savar 1342, Bangladesh
- 2001-2005 : B.Sc. in Statistics (2005)
First Class
Department of Statistics
Jahangirnagar University
Savar 1342, Bangladesh
- 1999-2000 : Higher Secondary School Certificate (2001)
First Division
Gangni College, Meherpur
Board of Intermediate and Secondary Education
Jashore 7401, Bangladesh
- 1997-1998 : Secondary School Certificate (1999)
First Division
Jorepukuria High School, Gangni, Meherpur
Board of Intermediate and Secondary Education
Jashore 7401, Bangladesh

2.2 Employment History

- Since 29.06.2022 : Professor
Department of Statistics
Faculty of Sciences
Islamic University
Kushtia 7003, Bangladesh
- 29.06.2019 - 28.06.2022 : Associate Professor
Department of Statistics
Faculty of Sciences
Islamic University
Kushtia 7003, Bangladesh
- 18.04.2013 - 28.06.2019 : Assistant Professor
Department of Statistics
Faculty of Sciences
Islamic University
Kushtia 7003, Bangladesh
- 18.04.2010 - 17.04.2013 : Lecturer
Department of Statistics
Faculty of Sciences
Islamic University
Kushtia 7003, Bangladesh

2.3 Major Awards and Scholarships

- 2016-2019 : Postgraduate Scholarship, King Abdulaziz University, KSA
2003-2005 : Academic Scholarship, Jahangirnagar University, Bangladesh

2.4 Course Works

- 2016-2019 : Probability Theory Ph.D.
 Advanced Analysis of Time Series
 Advanced Experimental Analysis
 Advanced Multivariate Analysis
 Linear Models
 Advanced Statistical Inference (1)
 Advanced Mathematical Analysis
 Advanced Statistical Inference (2)
 Modeling and Simulation
- 2005-2006 : Multivariate Analysis and Categorical Data Analysis M.Sc.
 Advanced Statistical Inference, Sample Survey
 Applied Stochastic Processes and Stochastic Simulation
 Econometric Analysis, Environmental Statistics
 Epidemiology and Biostatistics
- 2004-2005 : Statistical Inference-II, Mul. Ana. and Cat. Data Analysis B.Sc.
 Design of Experiments and Analysis of Variance (Part-IV)
 Econometrics and Time Series Analysis, Sample Survey
 Data Mining, Actuarial Statistics, Demography-II
 Research Methodology, Environmental Statistics
- 2003-2004 : Statistical Inference-I, Analysis of Variance, Sampling Techniques B.Sc.
 Operational Research, Probability and Stochastic Processes (Part-III)
 Biostatistics and Epidemiology, Time Series Analysis
 Econometrics, Order Statistics and Nonparametric Methods
- 2002-2003 : Probability Distributions, Sampling Distributions B.Sc.
 Regression Analysis, Quality Control and Applied Statistics (Part-II)
 Demography-I, Economic Development of Bangladesh
 Mathe. Ana. and Dif. Equ., Stat. Sim. and Data Processing
- 2001-2002 : Basic Statistics, Elements of Probability, Linear Algebra B.Sc.
 Introduction to Computer with Task Oriented Software (Part-I)
 Numerical Analysis and Basic Computer Programming
 Calculus, Introduction to Economics

2.5 Ph.D. and M.Sc. Theses

- Ph.D. (2019) : General Transmuted Families of Distributions and Related Results
M.Sc. (2006) : Improved Parametric and Nonparametric Classification Techniques

2.6 Computer Skills (Software)

- Word Processing : LaTeX, MS Word
Statistical Computation : Fortran, C++, MATLAB, R, Python, Minitab, SPSS,
SAS, GAUSS Light, Mathematica, Maple, MS Excel
Presentation : LaTeX, MS Power Point

3 Teaching Experience

I had started my teaching career in April 2010 at the Islamic University in Bangladesh.

I have taught many courses some of which are listed follow.

- Ph.D. : Transmuted Probability Distributions
Generalization of the Probability Distributions
- M.Sc. : Advanced Statistical Inference
Linear Statistical Models
Advanced Survival Analysis
- B.Sc. : Probability Theory, Statistical Inference
Sample Survey, Demography, Stochastic Processes
Industrial Statistics, Order Statistics, Simulation Using R
Sampling Distributions, Probability Distributions
Sampling Techniques, Elements of Probability
Matrix Algebra and Its Applications to Statistics
Methods of Statistics, Introductory Statistics

4 Research

Professor:

- Tushar, M. T., Rashedi, K. A., Alshammari, T. S., & **Rahman**, M. M. (2024). Second Order Transmuted Kumaraswamy Distribution and Its Related Results. *European Journal of Pure and Applied Mathematics*, 17(2), 616-637.
doi:10.29020/nybg.ejpam.v17i2.5069
- Tushar, M. T., Shahbaz, S. H., **Rahman**, M. M., & Shahbaz, M. Q. (2024). A New Cubic Transmuted Inverse Weibull Distribution: Theory and Applications. *Pakistan Journal of Statistics and Operation Research*, 20(1), 85-98. (IF:2.03)
doi:10.18187/pjsor.v20i1.4448
- **Rahman**, M. M., Darwish, J. A., Shahbaz, S. H., Hamedani, G. G., & Shahbaz, M. Q. (2024). A New Cubic Transmuted Log-logistic Distribution: Properties, Applications, and Characterizations. *Advances and Applications in Statistics*, 91(3), 335-361. (IF:0.20)
doi:10.17654/0972361724018
- **Rahman**, M. M., Gemeay, A. M., Islam Khan, M. A., Meraou, M. A., Bakr, M. E., Muse, A. H., Hussam, E., & Balogun, O. S. (2023). A new modified cubic transmuted-G family of distributions: Properties and different methods of estimation with applications to real-life data. *AIP Advances*, 13(9). (IF:1.69)
doi:10.1063/5.0170178
- Tushar, M. T., **Rahman**, M. M. (2023). Cubic Transmuted Inverse Lindley Distribution: Properties and Applications. *Journal of Statistics Applications & Probability Letters*, 10(3), 161-171.
doi:10.18576/jsapl/100304
- Kamal, M., Rao, G. S., Alsolmi, M. M., Ahmad, Z., Aldallal, R., & **Rahman**, M. M. (2023). A new statistical methodology using the sine function: Control chart with an application to survival times data. *PLoS ONE*, 18(8). (IF:3.75)
doi:10.1371/journal.pone.0285914
- Abdulla, F., Hossain, M. M., **Rahman**, M. M., Rahman, M. S., & Rahman, A. (2023). Risk factors of caesarean deliveries in urban–rural areas of Bangladesh. *Frontiers in reproductive health*, 5, 1101400.
doi:10.3389/frph.2023.1101400

- Rana, M. S., Molla, M. M. R., & **Rahman**, M. M. (2022). The Pareto-Rayleigh Distribution: Theory with Some Real-life Applications. *European Journal of Mathematics and Statistics*, 3(4), 27-36.
doi:10.24018/ejmath.2022.3.4.131

Associate Professor:

- **Rahman**, M. M. (2022). Cubic Transmuted Rayleigh Distribution: Theory and Application. *Austrian Journal of Statistics*, 51(3), 164-177. (IF 0.81)
doi:10.17713/ajs.v51i3.1280
- Islam Khan, M., Alharthi, A. S., Aljohani, H. M., Jawa, T. M., Sayed-Ahmed, N., Rana, M., & **Rahman**, M. M. (2022). Classical Inference of the Cubic Transmuted Lindley Distribution under Type-II Censored Sample. *Mathematical Problems in Engineering*, 2022. (IF 1.31)
doi:10.1155/2022/3543517
- Rana, M. S., & **Rahman**, M. M. (2022). The Pareto-Exponential Distribution: Theory and Real-life Applications. *European Journal of Mathematics and Statistics*, 3(3), 30-39.
doi:10.24018/ejmath.2022.3.3.116
- Rana, M. S., Shahbaz, S. H., Shahbaz, M. Q., & **Rahman**, M. M. (2022). Pareto-Weibull Distribution with Properties and Applications: A Member of Pareto-X Family. *Pakistan Journal of Statistics and Operation Research*, 18(1), 121-132. (IF 2.03)
doi:10.18187/pjsor.v18i1.3821
- **Rahman**, M. M., Al-Zahrani, B., Shahbaz, S. H., Hamedani, G. G., & Shahbaz, M. Q. (2021). New Cubic Transmuted Pareto Distribution: Properties and Applications. *Applied Mathematics E-Notes*, 21, 643-659. IF 0.48
- **Rahman**, M. M. (2021). Arcsine-G Family of Distributions. *Journal of Statistics Applications & Probability Letters*, 8(3), 169-179.
doi:10.18576/jsapl/080303
- Shahbaz, S. H., **Rahman**, M. M., & Shahbaz, M. Q. (2021). General Results for General Transmuted-G Distributions. *European Journal of Pure and Applied Mathematics*, 14(1), 301-313. (IF 0.64)

- Akter, S., Khan, M. A. I., Rana, M. S., & **Rahman**, M. M. (2021). Cubic transmuted Burr-XII distribution with properties and applications. *Journal of Statistics Applications & Probability Letters*, 8(1), 23-32.
doi:10.18576/jsapl/080103
- **Rahman**, M. M. & Majumder, A. K. (2020). Improved Parametric and Non-parametric Classification Techniques: The Box-Cox Transformation and Bootstrap Approach. *Lambert Academic Publishing*.
- Akter, S. & **Rahman**, M. M. (2020). Cubic Transmuted Burr-XII Distribution: Properties, Estimation and Applications. *Lambert Academic Publishing*.
- **Rahman**, M. M., Al-Zahrani, B., Shahbaz, S. H., & Shahbaz, M. Q. (2020). Transmuted Probability Distributions: A review. *Pakistan Journal of Statistics and Operation Research*, 16(1), 83-94. (IF 1.70)
doi:10.18187/pjsor.v16i1.3217
- **Rahman**, M. M., Al-Zahrani, B., Shahbaz, S. H., & Shahbaz, M. Q. (2019). Cubic Transmuted Uniform Distribution: An Alternative to Beta and Kumaraswamy Distributions. *European Journal of Pure and Applied Mathematics*, 12(3), 1106-1121. (IF 0.70)
doi:10.29020/nybg.ejpam.v12i3.3410

Assistant Professor:

- **Rahman**, M., Al-Zahrani, B., & Shahbaz, M. Q. (2019). Cubic transmuted Weibull distribution: properties and applications. *Annals of Data Science*, 6(1), 83-102. (IF 3.42)
doi:10.1007/s40745-018-00188-y
- **Rahman**, M., Al-Zahrani, B., & Shahbaz, M. Q. (2020). Cubic transmuted Pareto distribution. *Annals of Data Science*, 7(1), 91-108. (IF 3.42)
doi:10.1007/s40745-018-0178-8
- **Rahman**, M. M., Al-Zahrani, B., & Shahbaz, M. Q. (2018). New general transmuted family of distributions with applications. *Pakistan Journal of Statistics and Operation Research*, 14(4), 807-829. (IF 2.03)
doi:10.18187/pjsor.v14i4.2655
- Rana, M. S., **Rahman**, M. M., & Hasnain, M. S. (2018). Comparison Study Between Independent Component Analysis and Principal Component Analysis

in the Context of Hidden Source Separation. *World Journal of Pharmaceutical Research*, 7(17), 178-196.

doi:10.20959/wjpr201817-13437

- **Rahman**, M. M., Al-Zahrani, B., & Shahbaz, M. Q. (2018). A general transmuted family of distributions. *Pakistan Journal of Statistics and Operation Research*, 14(2), 451-469. (IF 2.03)
doi:10.18187/pjsor.v14i2.2334
- Abdulla, F., Hossain, M., & **Rahman**, M. (2014). On the Selection of Samples in Probability Proportional to Size Sampling: Cumulative Relative Frequency Method. *Mathematical Theory and Modeling*, 4(6), 102-107.
- Abdulla, F., Hossain, M., & **Rahman**, M. (2014). A New (Proposed) Formula for Interpolation and Comparison with Existing Formula of Interpolation. *Mathematical Theory and Modeling*, 4(4), 33-48.
- Asaduzzama, M., Hossain, M. M., & **Rahman**, M. M. (2014). On Identifying the Motivating Factors of Job & Career Satisfaction of IT Professionals in Dhaka City of Bangladesh. *In Information and Knowledge Management*, 4(3), 77-86.
- Hossain, M. M., & **Rahman**, M. M. (2013). A Socioeconomic Analysis on Tobacco Cultivation in Kushtia District of Bangladesh. *Social Sciences*, 2(3), 128-134.
doi: 10.11648/j.ss.20130203.14
- Asaduzzama, M., Hossain, M., & **Rahman**, M. M. (2013). Service Quality and Student Satisfaction: A Case Study on Private Universities in Bangladesh. *International Journal of Economics, Finance and Management Sciences*, 1(3), 128-135.
doi:10.11648/j.ijefm.20130103.11

Lecturer:

- **Rahman**, M. M., Hossain, M. M., Uddin, M. K., & Majumder, A. K. (2013). Supervised Parametric Classification on Simulated Data via Box-Cox Transformation. *International Journal of Advanced Scientific and Technical Research*, 3(1), 541-550.
- **Rahman**, M. M., Hossain, M. M., & Majumder, A. K. (2013). Classification Rule for Small Samples: A Bootstrap Approach. *International Journal of Advanced Scientific and Technical Research*, 3(1), 337-344.

- Hossain, M. S., **Rahman**, M. M., Abdullah, M. I., & Hossain, M. A. (2012). Hard Combination Data Fusion for Cooperative Spectrum Sensing in Cognitive Radio. *International Journal of Electrical and Computer Engineering*, 2(6), 811-818. (IF 2.3)
doi:10.11591/ijece.v2i6.1814

5 Professional Development and Leadership

5.1 Membership in Professional Societies

Life Member, Jahangirnagar University Department of Statistics Alumni Association

5.2 Reviewing Papers for Journals

Reviewed 27 papers for different international journals.

5.3 Presentation of Research Papers in Academic Departments

- A General Transmuted Family of Distributions, Department of Statistics, Islamic University, Kushtia, Bangladesh.
- Cubic Transmuted Pareto Distribution, Department of Statistics, Islamic University, Kushtia, Bangladesh.

5.4 General Workshops Attended

- International Conference on Theory and Application of Statistics, Department of Statistics, University of Dhaka, December 27-29, 2015.
- Perl Programming and Online Software Development for Bioinformatics, Department of Statistics, University of Rajshahi, July 31 - August 01, 2015.
- Training Program on R, Department of Statistics, University of Rajshahi, June 20 - July 6, 2015.
- Workshop on Advanced R Programming, Department of Statistics, University of Rajshahi, June 9-11, 2015.
- International Conference on Applied Statistics, Institute of Statistical Research and Training, University of Dhaka, December 27-29, 2014.
- 18th International Mathematics Conference, Department of Physical Sciences, Independent University, March 20-22, 2014.

- Networking with Linux, Department of Information and Communication Engineering, Islamic University, January 12-14, 2012.
- Training on Mathematics: Multivariate Calculus for Machine Learning, Department of Statistics, University of Rajshahi, November 25-26, 2011.

5.5 Examination of Theses

M.Sc. : Evaluating the Generalized Linear Models for Analyzing the Pooled Complex Survey: A Simulation Study

5.6 Involvement in Theses Supervision

Ph.D. : Pareto-X Family of Distributions: Properties and Applications

M.Sc. : A New Inverse Weibull-Uniform Distribution: Theory, Properties, and Applications

Alternated Exponentiated Family of Distributions and Related Results

A New Inverse Weibull-X Family of Distributions: Theory, Properties and Applications

Generating Second Order Transmuted Distributions via Cubic Transmutation Approach: Theory and Some Real-life Applications

The Arcsin Log-logistic Distribution: Theory, Properties and Real-life Applications

Cubic Transmuted Burr XII Distribution: Properties and Real-life Applications

5.7 Committees

Offices Held : Member, academic/planning/thesis evaluation/project-evaluation/exam committee, Department of Statistics
Islamic University, Bangladesh

Member (2012-2014), Faculty of Applied Science and Technology
Islamic University, Bangladesh

Member (2013-2014, 2014), Player Selection Sub Committee
(Admission Test), Department of Physical Education
Islamic University, Bangladesh

House Tutor (2014-2015), Saddam Hossain Hall
Islamic University, Bangladesh

6 References

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3. Dr. Ajit Kumar Majumder
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Email: ajit@juniv.edu

4. Dr. Md. Forhad Hossain
Professor
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