# Md Rasel Biswas, M.S.

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## **EDUCATION**

University of Dhaka
Master of Science (MS) in Applied Statistics

- GPA: 4.00/4.00 (Ranked 1st among 21 thesis-group students)
- Thesis: Evaluation of the Methods for Multi-Parameter Hypothesis Testing in Multiple Imputation (supervised by Dr. A.H.M. Mahbub-ul Latif)

## **University of Dhaka**

Bachelor of Science (BS) in Applied Statistics

Dhaka, Bangladesh Jan 2016 — Dec 2019

Dhaka, Bangladesh

Jan 2020 — Jan 2022

- Relevent Coursework: Sampling Techniques; Epidemiology; Time Series Analysis; Generalized Linear Models; Lifetime Data Analysis; Bayesian Statistics; Multivariate Statistics (PCA, Factor Analysis, Classification, Clustering); Econometric Modeling
- · CGPA: 3.96/4.00 (Ranked 1st among 46 students)
- Thesis: The Impact of Sample Sizes on the Accuracy of Estimates for a Multi-Level Logistic Regression Model (supervised by Ms. Noor Jahan Aktar)

### **TEACHING EXPERIENCE**

### **LECTURER**

Institute of Statistical Research and Training, University of Dhaka

July 2022 — Present

- Teach 3-4 courses each academic year to undergraduate Applied Statistics majors.
- Developed innovative course materials using Quarto and R Markdown.
- · Key Courses:

Year	Course
2024 2024—2022 2024	AST230: R for Data Science (Course site: https://ast230.netlify.app) AST301: Design and Analysis of Experiments II (Site: https://ast301.netlify.app) AST405: Lifetime Data Analysis (Course site: https://ast405.netlify.app)

## **TEACHING FELLOW**

James P Grant School of Public Health, BRAC University

Mar 2022 — Apr 2022

- Assisted in teaching biostatistics for the Master of Public Health (MPH) program.
- Conducted computing lab sessions and provided student support.

#### **GRADUATE STUDENT TUTOR**

Institute of Statistical Research and Training, University of Dhaka

Mar 2020 — Sep 2020

 Provided academic support for undergraduate courses, including introductory statistics, probability, calculus, linear algebra, simulation, inference, and experimental design.

## RESEARCH EXPERIENCE

#### **RESEARCH SUPERVISION**

### **Master's Projects Supervised**

- Samiul Ehsan (MS Session 2022-23): "The Impact of Maternal Employment on Child Nutritional Diversity in Bangladesh: A Causal Forest Analysis with Clustered Data" (Published article)
- Tanjim Ahmed Ardi (MS Session 2022-23): "Investigating The Role of Rural Residence in Early Marriage in Bangladesh: A Causal Analysis Approach"

### **Undergraduate Projects Supervised (6 total)**

- Saiyeda Tasmia Ahmed (BS Session 2023-24): "Factors Influencing Age at First Birth in Bangladesh: A Survival Analysis Approach"
- Rabiul Alam Nayem (BS Session 2023-24): "Investigating the Timing of First Antenatal Care Among Women in Bangladesh: A Survival Analysis Approach"
- Tayaba Cheragee Prachee (BS Session 2022-23): "Exploring the socioeconomic determinants of dietary diversity in rural bangladesh: A longitudinal study" (Published article)
- Md. Al Amin (BS Session 2022-23): "Modelling and Forecasting Maximum Temperature of the Dhaka City"
- Jannatul Yasmin (BS Session 2022-23): "Knowledge of HIV/AIDS Among Married Women: Comparison Between Three South Asian Countries"
- Md. Aminul Islam Shazid (BS Session 2021-22): "Factors Associated with Fertility: A Poisson Regression Approach"

## **PUBLICATIONS**

ORCID: 0000-0002-7391-7608

## JOURNAL ARTICLES

- 1. Ehsan S and **Biswas MR** (2025), "The Impact of Maternal Employment on Child Nutritional Diversity in Bangladesh: A Causal Forest Analysis with Clustered Data," *Journal of Statistical Research*, 58(2), 317–333. DOI: 10.3329/jsrv58i2.80614
- 2. Prachee TC, **Biswas MR**, Islam S (2025), "Exploring the Socioeconomic Determinants of Dietary Diversity in Rural Bangladesh: A Longitudinal Study," *PLOS ONE*, 20(2): e0317623. DOI: 10.1371/journal.pone.0317623
- 3. Barua P, Mahjuba S, **Biswas MR**, Alamgir Khan A, Rahman MK, & Musa S (2024), "Socio-Demographic Factors Associated with the Knowledge, Attitude and Practice (KAP) of Dengue Patients of Dhaka City During 2021 Dengue Outbreak," *Bangladesh Journal of Zoology*, 52(2), 167–184. DOI: 10.3329/bjz.v52i2.77271
- 4. Barua P, Mahjuba S, Khan AA, **Biswas MR**, Rahman MK, & Musa S (2024), "Clinical Manifestations and Seasonal Occurrence of Patients With Dengue Hospitalized at Dhaka City of Bangladesh in 2021," *Dhaka University Journal of Biological Sciences*, 33(1), 33-46. DOI: 10.3329/dujbs.v33i1.72468

## **TECHNICAL SKILLS**

- Programming & Software: Proficient in R; intermediate in Stata and SPSS; beginner in Python
- Experienced with Quarto, R Markdown, LaTeX, Git, and GitHub
- $\cdot$  Data analysis and visualization using the **tidyverse** family and **ggplot2** packages in **R**

## **HONORS / AWARDS**

2020: National Science and Technology Fellowship, for MS thesis research Govt. of Bangladesh
 2020: ISRT Golden Jubilee Gold Medal, for graduating top of the class in BS Honors Univ. of Dhaka
 2020: Dean's Honor Award, Awarded by the Faculty of Science Univ. of Dhaka
 2017: ISRT Merit Stipend Univ. of Dhaka
 2017: Moulovi Ahmed Ullah Memorial Trust Fund Stipend

### PROFESSIONAL DEVELOPMENT

#### **CONFERENCES**

 Invited Speaker — "Evaluation of the Methods for Multi-Parameter Hypothesis Testing in Multiple Imputation: A Focus on Correlated Responses"
 8th International Conference on The Role of Statistics and Data Science in 4IR Rajshahi, Bangladesh | December 26, 2024

 Poster Presenter — "The Impact of Sample Sizes on the Accuracy of Estimates for a Two-level Logistic Regression Model"
 2nd International Conference on Applied Statistics (ICAS2019)
 Dhaka, Bangladesh | December 29, 2019

#### TRAININGS CONDUCTED

Trainer — "Training on Stata for BBS Officials"
 Bangladesh Bureau of Statistics | June 2025
 Designed the curriculum and conducted 12+ hours of hands-on training sessions on using Stata for statistical analysis. (https://github.com/raselbw/bbs-stata-training)

 Resource Person — "Training on the Application of Machine Learning Techniques in Agriculture" Bangladesh Agricultural Research Council | May 2025
 Delivered two expert sessions: "Unsupervised Learning: Concepts and Applications" and "Regression Analysis in Agriculture." (https://github.com/raselbw/barc-ml-training)

 Coordination Team Member — "Capacity Strengthening Program on Educational Data Analysis Techniques and Reporting"
 ISRT, University of Dhaka | January 2023

Contributed to program coordination and conducted 12 hours of lab sessions for officials from TMED, DTE, BTEB, BANBEIS, and NSDA.

### **WORKSHOPS ATTENDED**

Attendee — "Report Writing Workshop on Bangladesh Demographic and Health Survey 2022"
 The DHS Program at NIPORT, Dhaka | August 6—14, 2023
 Completed the 7-day intensive training on demographic survey analysis. Recognized as a contributing author in the 2022 BDHS Final Report.

Attendee — "Foundation Certificate in University Teaching & Learning"
 DU IQAC at BARD, Cumilla | May 24 — June 6, 2024
 Completed the 14-day residential program on pedagogical techniques.

## **PROFESSIONAL AFFILIATIONS**

Life Member, Bangladesh Statistical Association (BSA)

2022 — Present

Life Member, ISRT Alumni Association, University of Dhaka

2022 — Present

## **SERVICE AND LEADERSHIP**

## Galley Proofreader, Journal of Statistical Research

2022 — Present

• Formatted galley proofs for 30+ articles for the Scopus-indexed journal.

## Sports Advisor, ISRT, University of Dhaka

2022 — Present

· Provide guidance and organizational support for student participation in sports activities.

Convener, ISRT Students' Club, University of Dhaka

*2019 — 2020* 

• Led the coordination and organization of student-led events including seminars, cultural programs, and intra-departmental competitions.

## **REFERENCES**

### 1. Dr. A.H.M. Mahbub-ul Latif

Professor, ISRT University of Dhaka, Bangladesh Email: mlatif@isrt.ac.bd

## 2. Dr. Tamanna Howlader

Professor & Director, ISRT University of Dhaka, Bangladesh Email: tamanna@isrt.ac.bd