# Md Rasel Biswas, M.S.

Institute of Statistical Research and Training (ISRT)
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## **EDUCATION**

University of DhakaDhaka, BangladeshMaster of Science (MS) in Applied StatisticsJan 2020 — Jan 2022

- 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

- 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/R Markdown.
- Key Courses Taught:

| Year              | Course   |
|-------------------|--|
| 2025              | CSE331: Python for Data Science (Course site: https://cse331.netlify.app)        |
| <b>2025</b> —2024 | AST230: R for Data Science (Course site: https://ast230.netlify.app)             |
| 2025              | AST305: Lifetime Data Analysis I (Course site: https://ast305.netlify.app)       |
| 2024-2022         | AST301: Design and Analysis of Experiments II (Site: https://ast301.netlify.app) |
| 2024              | AST405: Lifetime Data Analysis (Course site: https://ast405.netlify.app)         |
| 2023              | AST403: Multivariate Statistics II   |
| 2023, 2022        | AST406: Research Methodology and Social Statistics                               |

## PART TIME LECTURER

Department of Psychology, University of Dhaka

Sep 2025 — Present

· Courses Taught:

| Year | Course   |
|------|--|
| 2025 | PSY206: Data Management and Analysis (Course site: https://psy206.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**

- 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 and Python; intermediate in Stata and SPSS.
- · Experienced with Quarto/R Markdown, LaTeX, Git, and GitHub
- · Data analysis and visualization using the tidyverse family and ggplot2 packages in R

# **HONORS / AWARDS**

- Certificate of Appreciation, for contribution as a *Teaching Fellow* in *Biostatistics* Module in MPH program, James P Grant School of Public Health, BRAC University, 2022
- National Science and Technology Fellowship, awarded for MS thesis research, Govt. of Bangladesh, 2020
- ISRT Golden Jubilee Gold Medal, for graduating top of the class in BS Honors, University of Dhaka, 2020
- **Dean's Honor Award**, Faculty of Science, University of Dhaka, awarded for an outstanding result of B.S. in Applied Statistics, 2020
- ISRT Merit Stipend, University of Dhaka, for the B.S. results, 2017, 2018, 2019, and 2020
- Moulovi Ahmed Ullah Memorial Trust Fund Stipend, for the B.S. 2nd year result, University of Dhaka, 2017

#### 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 SPSS under the 139th Law and Administration Course"
   Bangladesh Civil Service Administration Academy | July 2025
   Designed the curriculum and delivered 8+ hours training sessions on SPSS for data management and analysis.
- 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/TRAINING 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