

Suman Biswas

Assistant Professor



Department of Statistics and Data
Science

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AREA OF INTEREST

Data Science, Machine Learning, Deep Learning, Statistical Modelling, Public Health, Bioinformatics.

PROFESSIONAL EXPERIENCE

SN	Designation	Institute/Organization	Duration
01.	Assistant Professor	Islamic University, Kushtia	29/10/2023 - Present
02.	Lecturer	Islamic University, Kushtia	29/10/2022 – 28/10/2023
03.	Scientific Officer (Statistics)	Bangladesh Agricultural Research Institute, Gazipur	05/08/2018 – 28/10/2022
04.	Research Associate	Centre for Policy Dialogue, Dhaka	16/02/2018 – 04/08/2018
05.	Programme Associate	Centre for Policy Dialogue, Dhaka	16/08/2017 – 15/02/2018
06.	Intern	Centre for Policy Dialogue, Dhaka	02/05/2017 – 15/08/2017

EDUCATION QUALIFICATION

Institute/Board	Examination	Subject/Group	Passing Year	Grade	Remarks
Islamic University	M. Sc.	Statistics	2014 (Held in 2016)	A (3.98)	1 st Position
Islamic University	B. Sc. (Hon's)	Statistics	2013 (Held in 2014)	A (3.92)	1 st Position
Jessore	HSC	Science	2009	A (4.60)	-
Jessore	SSC	Science	2007	A (4.75)	-

AWARDS

- ❖ Awarded **Prime Minister Gold Medal 2015** for securing first position in B. Sc (Hon's).
- ❖ Awarded **Faculty First Gold Medal 2014** for securing first position in M.Sc.

FOREIGN TRAINING (TRAINEE)

- ❖ Participated in the Advanced International Training Programme on “Gender Statistics” organized by SIDA and Statistics Sweden from May 14, 2018 to June 01, 2019 in **Stockholm, Sweden**.
- ❖ Participated in the International Training on “Scientific Computing for Agro-geospatial Big Data Analysis” organized by ITC, University of Twente from June 27, 2022 to July 06, 2022 in **Enschede, the Netherlands**.

TRAINER

- ❖ Workshop on “**Computational Science with R: From Fundamentals to Research Applications**”, *Islamic University Science Club (IUSC)*, 25, 27 & 29 August 2026.
- ❖ Conducted trainings on “**Experimental Design and Statistical Analysis using R**” which were arranged for the Lecturer & Assistant Professor of *Sher-e-Bangla Agricultural University (SAU)*, Dhaka.
- ❖ Conducted several in-house trainings on “Experimental Design” and “Statistical Analysis” using different statistical tools in *Bangladesh Agricultural Research Institute (BARI)* during the tenure.

MERIT SCHOLARSHIP

- ❖ Achieved annual University Grant Commission (UGC) merit-based scholarship for brilliant results at 1st, 2nd, 3rd, and Final Year examinations at the undergraduate level from Islamic University, Kushtia-7003, Bangladesh.

RESEARCH AND ACADEMIC PROJECTS

Project Director

July 01, 2024 – June 30, 2025

Selecting Optimal Model and Features for Investigating Overweight and Obesity using Machine Learning among Ever-married Women in Bangladesh, University Grants Commission (UGC), Bangladesh.

Deputy Coordinator

August 01, 2020 – October 28, 2022

OKP TMT+ OKP-BGD-20025P: Open-Source Scientific Computing for AgroGeospatial Big Data Analysis, NUFFIC, & ITC, University of Twente, the Netherlands.

Principal Investigator (PI)

February 16, 2022- October 28, 2022

TF 51-SBR/17: Assessment of Cropping Patterns for Sustainable Intensification in Drought-Prone Ecosystem using Remote Sensing and Geospatial Modeling. *Krishi Gobeshona Foundation (KGF)*, BARC Complex, Dhaka-1215, Bangladesh.

PEER-REVIEWED PUBLICATION (S)

JOURNAL ARTICLES

1. Mokarroma, N., Ahmed, I. M., Uddin, M. R., Khan, M. S. U., Alam, Z., Afridi, N., ... & Hossain 11, A. (2026). Exploring Qualitative and Quantitative Genetic Variations of Barley (*Hordeum vulgare* L.) Genotypes Grown under Heat Stress Conditions. [10.32604/phyton.2026.086460](https://doi.org/10.32604/phyton.2026.086460).
2. Islam, N., Rahman, F. I., **Biswas, S.** (2026). ‘SNM-TransNet: A Novel SNMish Activation-Based Attention Enhanced Hybrid Architecture for Accurate Breast Cancer Image Classification’. *IEEE QPAIN 2026*, Chattogram, Bangladesh, 16-18 April. [10.1109/QPAIN69676.2026.11546422](https://doi.org/10.1109/QPAIN69676.2026.11546422).
3. Hasan, M., **Biswas, S.** (2026). Socioeconomic and geographic disparities in institutional delivery in Bangladesh: a Bayesian multilevel modelling framework. *BMC Public Health* 26, 700. <https://doi.org/10.1186/s12889-026-26297-5>.
4. **Biswas, S.**, Islam, M. M., Islam, N., Mia, M. A. R. (2026). National data meets AI: Machine learning for predicting overweight/obesity among ever-married Bangladeshi women. *PLoS One* 21(2): e0341821. <https://doi.org/10.1371/journal.pone.0341821>.
5. Ali, M. N., & Biswas, S. (2025). Machine Learning Techniques to Uncover Sociodemographic Risk Factors of Autism Spectrum Disorder (ASD) Among Children and Adolescents in Bangladesh. *Applied Computational Intelligence and Soft Computing*, 2025(1), 6410913. <https://doi.org/10.1155/acis/6410913>.
6. Akter, M., Alam, K., Rashid, H., Naser, H. M., Sultana, S., **Biswas, S.**, ... & Ahmed, S. (2023). Determination of Critical Limit of Zinc for Lentil (*Lens culinaris* L.) in Diverse Soils under Intensive

7. Ahmed, I., Ishtiaque, S., Zahan, T., Rashed, M. S. U., Sen, R., Hossain, M. F., ..., **Biswas, S.**, & Haque, M. I. (2022). Climate change vulnerability in Bangladesh based on trend analysis of some extreme temperature indices. *Theoretical and Applied Climatology*, 149(1-2), 831-842.
<https://doi.org/10.1007/s00704-022-04079-4>
8. Hoque, A. K. M. A., Chowdhury, H. T., Tipu, M. M. H., **Biswas, S.**, Islam, M. R., Rahman, M. M., 2021. Fruit traits diversity in Burmese grape through multivariate analysis. *Agronomy Journal*.113(5), pp. 4753-4761. <https://doi.org/10.1002/agj2.20904>
9. Rahman, M.S., Ahmed, I., **Biswas, S.**, Morshed, M., Sarker, P.C., Hossain, M.A., Islam, M. and Jahan, T., 2021. Effect of Milk and Hydro-priming on Seed Germination Characteristics of Bitter Gourd (*Momordica charantia* L.). *Turkish Journal of Agriculture-Food Science and Technology*, 9(2), pp. 296-300. <https://doi.org/10.24925/turjaf.v9i2.296-300.3856>
10. Hossain, A., **Biswas, S.**, 2019. Determining the Ideological Approach of Finance-Growth Nexus in Bangladesh: New Evidence from Dynamic Factor Based Causality Approach. *International Research Journal of Finance and Economics*. 176, pp. 100-115.
11. **Biswas, S.**, Hossain, A., Podder, A. K. and Hossain, M. N., 2018. A Canonical Analysis on the Relationship between Banking Sector and Stock Market Development in Bangladesh. *International Journal of Economics and Finance*. 10(1), pp. 167-176. doi:10.5539/ijef.v10n1p167
12. Hossain, A., **Biswas, S.**, Hossain, M. N. and Podder, A. K., 2017. Financial Sector Development and Economic Growth in Bangladesh: A Factor Analysis Based Causality Approach. *International Journal of Economics and Finance*. 9(8), pp. 229-238. doi:10.5539/ijef.v9n8p229
13. **Biswas, S.**, Khatun, M.S., Parh, M.Y.A. and Hossain, M.S., 2016. Factors that Affect the Academic Results: A Case Study of Islamic University, Kushtia, Bangladesh. *Global Journal of Human-Social Science Research*, 16(1).
14. **Biswas, S.** and Parh, M.Y.A., 2015. Determinants of Under-Five Mortality by Using Multivariate Proportional Hazard Model: A Case Study in Bangladesh. *Research & Reviews: Journal of Statistics*, 4(3), pp.1-13.

TECHNICAL REPORT

1. Bhattacharya, D., Khan, T. I., Khan, S. S., Sinha, M. M., Fuad, S. M., **Biswas, S.**, & Muzib, A. (2017). Quest for Inclusive Transformation of Bangladesh: Who Not to Be Left Behind. *Dhaka: Centre for Policy Dialogue (CPD) and Citizen's Platform for SDGs, Bangladesh*.

CONFERENCE PROCEEDING (S)

1. **Biswas, S.**, Islam, M. M., Islam, N., Mia, M. A. R., (2024). 'Leveraging Machine Learning for Obesity Prediction among Ever-married Women in Bangladesh: Insights from Nationally Representative Data.' *The 8th International Conference on The Role of Statistics and Data Science in 4IR (ICRSDS4IR)*, University of Rajshahi, Bangladesh, 26-28 December.
2. Hossain, A., **Biswas, S.**, Hossain, M. N. and Podder, A. K., 2016. 'Financial Sector Development and Economic Growth in Bangladesh: A Factor Analysis Based Causality Approach' *Proceedings of the 2nd International Conference on Business and Economics*, University of Dhaka, Bangladesh, 30-31 Oct.

3. Sumi, R. S., Hossain, A., Podder, A. K., Hossain, M. N. and **Biswas, S.**, 2015. 'The Role of Health on Economic Growth: Empirical Evidence from Bangladesh' *Proceedings of the 2nd International Conference on Theory and Applications of Statistics*, DUSDAA, Dhaka, 27-29 Dec.
4. Hossain, A., **Biswas, S.**, Podder, A. K. and Hossain, M. N., 2015. 'Impacts of Remittance and Financial Development on Economic Growth: Evidences from Bangladesh' *Proceedings of the 2nd International Conference on Theory and Applications of Statistics*, DUSDAA, Dhaka, 27-29 Dec.
5. Hossain, A., Hossain, M. N., **Biswas, S.**, and Podder, A. K., 2015. 'Banks, Stock Markets and Economic Growth: Evidences from Bangladesh' *Proceedings of Annual Banking conference*, BIBM, Dhaka, 22-23 Nov.

TECHNICAL STRENGTHS

Languages	Bengali (Native), English (Medium of Instruction)
Programming & Statistical Software	Python, R, SQL, STATA, SPSS
Machine Learning & Deep Learning	PyTorch, TensorFlow, scikit-learn, SHAP / LIME
Data and Tooling	pandas, NumPy, PySpark, Colab, Git, LaTeX, Excel