Md Shahriar Islam

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Linkedin Portfolio Google Scholar

EDUCATION

- **PhD in Geography (In Progress)**:
  University of Oregon Sept 2026 – 2030 (Expected)
  Advisor: Dr. Melissa Lucash
- **Master of Science (M.Sc.)**:
  Jahangirnagar University, Savar, Dhaka, Bangladesh 2023-2024
  Major: Geography and Environment
  GPA: 3.93/4.00
- **Bachelor of Science (B.Sc.)**:
  Jahangirnagar University, Savar, Dhaka, Bangladesh 2018-2023
  Major: Geography and Environment
  CGPA: 3.84/4.00

WORK EXPERIENCE

- **Graduate Employee (Teaching Assistant)**:
  Department of Geography, University of Oregon Sept 2026 – Present
- **Research Consultant**:
  CEGIS: Center for Environmental and Geographic Information Services, Dhaka, Bangladesh Dec 2024 - July 2026
  Project Title: Generation of the Land Cover and Natural Capital Map and Developing Integrated Collaborative Forest Management Plans
- **Research Assistant**:
  Dhaka, Bangladesh Jan 2024 - Dec 2024
  PI: Professor Dr. Md. Nazrul Islam
  Project Title: Modeling Forest Health and Related Topographic, Vegetation, and Microclimatic Factors for Enhanced Restoration Practices – A Study on SUFAL Project Sites
  Funded by the **Sustainable Forests & Livelihoods (SUFAL)** Innovation Grant
- **Undergraduate Research Assistant**:
  Jahangirnagar University, Savar, Dhaka, Bangladesh Mar 2021 - Dec 2023
  Supervisor: Professor Dr. Md. Nazrul Islam
  - Worked with GIS, Remote Sensing and Statistical Analysis to prepare and process data for scientific research.
  - Collaborated with fellow authors in writing three book chapters.
- **Geography Instructor**:
  EduHive, Dhaka, Bangladesh Jan 2022 - May 2023
  - Taught Bangladesh and Global Studies to Class 7 students.

RESEARCH INTEREST

Forest Dynamics— Climate Change— GIS and Remote Sensing— Land Use Change — Disaster Risk Management

RESEARCH EXPERIENCE

Under Review

- **Improving harmful algal bloom prediction under data scarcity using generative adversarial networks**: Hridoy, M. A., Schneider, P., Pastorino, P., Bordin, C., Bodini, M., **Islam, M. S.**, Hosen, A., Pathan, M. M., & Goliatt, L.*Journal of Hazardous Materials Advances.*
- **Interpretable Machine Learning Reveals Key Hydrochemical Controls on River Water Total Hardness**: Hridoy, M. A., Bodini, M., Ditthakit, P., Akter, R., **Islam, M. S.**, Pastorino, P., & Bordin, C. *Case Studies in Chemical and Environmental Engineering.*

Journal Article

- **Spatiotemporal Dynamics of Land Use Change in Narayanganj Sadar (2002-2023) and Forecasting for 2035 Using CA-Markov Modeling**: Hossain, E., Tahia, F. J., Siemens, A. R., **Islam, M. S.**, Rahman, Z., & Ahmad, I. (2025). Journal of Geographic Information System, 17(03), 143–165. https://doi.org/10.4236/jgis.2025.173008
- **Shoreline change analysis and sustainable coastal management for Kutubdia island: Trends, vegetation impact, and future projections**: Hossain, E., Tahia, F. J., **Islam, M. S.**, Siemens, A. R., Rahman, Z., & Ahmad, I. (2025). Ecology Journal, 7(2), 139–149. https://doi.org/10.59619/ej.7.2.7

Book Chapters

- **Climate Change Diplomacy, Adaptation, and Mitigation Strategies in South Asian Countries: A Critical Review**: India II: Climate Change Impacts, Mitigation and Adaptation in Developing Countries
  Islam, M. N., Tamanna, S., Noman, M., Siemens, A. R., Islam, S. M. R., & **Islam, M. S.** (2022). In Springer climate (pp. 1–32). https://doi.org/10.1007/978-3-030-94395-0_1
- **Global Scenarios of Seaweed Cultivation**: Global Blue Economy
  Islam, M. N., Tamanna, S., **Islam, M. S.**, & Noman, M. (2022). In CRC Press eBooks (pp. 309–340). https://doi.org/10.1201/9781003184287-11
- **Marine Ecosystem Services**: Global Blue Economy
  Islam, M. N., Tamanna, S., Islam, S. M. R., & **Islam, M. S.** (2022). In CRC Press eBooks (pp. 259–284). https://doi.org/10.1201/9781003184287-9

Conference Papers/Abstracts

- **Assessing Cyclone Shelter Site Suitability with GIS-AHP: A Study on Barguna District**: 3rd International Conference on Advancement of Life Sciences
  M. S. Islam, A.R. Siemens, E. Hossain, Z. Rahman, I. Ahmed (2025)
- **Modeling Flood Vulnerability: Spatial Dynamics of Risk and Livelihoods in Narsingdi District,Bangladesh**: 3rd International Conference on Advancement of Life Sciences
  Z. Rahman, A. R. Siemens, **M. S. Islam**, E. Hossain, I. Ahmed (2025)

M.Sc. Thesis

- **Md Shahriar Islam, Md Nazrul Islam, "Assessment of Physiographic and Climatic Impact on Forest Health at the Tengragiri Wildlife Sanctuary in Bangladesh"**:
  - Quantified the forest health condition associated with physiographic features and climatic factors.
  - Constructed a forest health index for Tengragiri Wildlife Sanctuary using generalized additive model.

B.Sc. Dissertation

- **Md Shahriar Islam, Md Nazrul Islam, "Modeling on Evacuation Behavior of Flash Flood Prone Community of Haor Basin at the North-East Region in Bangladesh"**:
  - Investigated evacuation behavior considering socio-cultural, economic, and geographical factors.
  - Proposed a six-phase alternative model for evacuation strategies.

ACADEMIC FIELD SURVEYS

- **Exploring Environmental and Social Dynamics**: A Study on Sylhet Region, Bangladesh
- **Assessing Plant Community Pattern using the Braun-Blanquet Cover-Abundance Scale**: A Study at Jamtola Sea Beach (adjacent to Bay of Bengal) in Sundarbans
- **Opportunities and Challenges for Sustainable Development**: Impact of Climate Change and Human Activities on Kuakata Beach Tourism
- **Mapping and Monitoring of Coastal Environmental Degradation and Correlation with Socio-cultural Dimension**: A Study on Chittagong Coastal Region in Bangladesh
- **Exploring Geography - Observations, Cross-Sectional Studies, and Community Insights**: A Study at the Drought Prone Dinajpur Region of North-western Bangladesh

STANDARDIZED TEST SCORES

- **IELTS**: **Overall: 7.5** — Listening: 9 — Reading: 8 — Writing: 7 — Speaking: 6.5

AWARDS & ACHIEVEMENTS

- **National Science and Technology (NST) Fellowship, Physical Science-2024-2025**: Research Title: Modeling on Evacuation Behavior of Flash Flood Prone Community of Haor Basin at the North-East Region in Bangladesh.
- **Runner Up, GIS Olympiad-2023**: Project Title: GIS-Based Suitability Analysis for Coffee Shop Locations in Dhaka City
- **Debate Competitions**: **Inter Club Debate (JUDO)** - Quarterfinals, **Freshers Debate (GDC)** - Quarterfinals
- **Best Instructor**: Content, EduHive, 2023
- **Scholarships**: Board Talent pool scholarship in JSC, SSC & HSC (2012, 2014 & 2016)