Sheikh Samanin Tasnim

Lecturer and Researcher

Career

I am a motivated researcher and academician focusing on researching environmental pollution and natural hazards with remote sensing technologies.

Fellowship

Bangabandhu Science and Technology Fellowship (fully funded) for **M.S. in Sustainability, The University of Sydney, Australia** (September 2019 – September 2021) Awarded by: Bangabandhu Science and Technology Fellowship Trust Government of the People's Republic of Bangladesh Ministry of Science and Technology BCSIR Complex, Dhanmondi, Dhaka- 1205.

Contacts

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Job Experience

Lecturer | January, 2022 - Present

Lecturer(full-time), Faculty of Environmental Science and Management, North South University, Dhaka, Bangladesh

- **Teaching undergraduate courses:** Introduction to Environmental Science, Introduction to Geography, Environmental Ethics, and Environmental Impact Assessment.
- **Principal Investigator** in a funded (2700 USD) project by The Office of Research-NSU (OR-NSU) on 'Quantitative physical, remotely sensed and temporal assessment of heavy metal, toxic gases and eutrophication for addressing air and water pollution in and around Shitakunda chemical explosion site and Karnaphuli river estuary.'
- **Undergraduate Thesis Supervisor:** Main supervisor of 3 students who are actively researching multiple environmental and disaster issues like Earthquake preparedness and response analysis in Bangladesh, Optical and Radar image-based flood detection, and Water quality parameters like heavy metal and Chlorophyll-a analysis using remote sensing indices for industrial pollution. Co-supervising 6 students for air and water pollution analysis-based research.

Lead Expert of Spatial Analysis Team | January, 2023 - Present

Project: "Support for Spatial Surge Forecasting Using Artificial Intelligence and Community Knowledge for Inclusive and Transformative Early Actions'' (SURF-IT) funded by the Climate Adaptation and Resilience (CLARE) International Development Research Centre (1.5 million CAD).

Research Apprentice| February,2021 – July,2021

- Centre of Advanced Modelling and Geospatial Information Systems (CAMGIS) UTS, NSW, Australia

Collaboration research as a part of M.S. thesis paper at The University of Sydney on the topic of Remote sensing-based time series of eutrophication assessment of two river estuaries in Bangladesh and New South Wales and formulating management strategies.

Research Assistant |January, 2018 – January, 2020

Dept. Of Disaster Science and Climate Resilience, University of Dhaka, Bangladesh

- Working under the supervision of my supervisor for time series multi-criteria hazard assessment (time series land subsidence hazard, urban heat island analysis, hydro-meteorological drought monitoring, and environmental and anthropogenic vulnerability assessment) and scientific publication in journals that specialize in the research arena of remote sensing hazard and disaster analysis and prediction.
- Completion of both Honours and Master's thesis was also done while being under this post.

Publications

- D. M. Enamul Haque, T. Hayat, and S. Tasnim, "Time Series Analysis of Subsidence in Dhaka City, Bangladesh Using InSAR," Malaysian J. Geosci., vol. 3, no. 1, pp. 32–44, 2019, DOI:10.26480/mjg.01.2019.32.44 https://www.researchgate.net/publication/330168428_TIME_SERIES_ANALYSIS_OF_SUBSIDENCE_IN_DHAKA_CITY_BANGLADESH_USING_INSAR
- Sheikh Samanin Tasnim, B.M.Rabby Hossain, ASM Maksud Kamal, Md. Shahidul Islam, "Soil Salinity Hazard Assessment and Delineating Suitable Location for Paddy Cultivation in Coastal Bangladesh," in International (SAARC) Youth Scientific Conference (ISYC), 2019, pp. 241–248, ISBN: 978-9937-0-6125-4. https://www.researchgate.net/publication/370761769_Connecting_Lives_with_Land_Water_and_Environment

Certifications

1. Programming for Everybody (Getting Started with Python), Coursera (University of California, Davis) December 2018 (This credential does not expire) Credential URL: https://www.coursera.org/account/accomplishments/verify/T2QT6D8DFNGZ

2. Satellite Observations for Analyzing Natural Hazards on Small Island Nations NASA's Applied Remote Sensing Training Program Certification: https://drive.google.com/file/d/1R9Lg6dLeYwzCCD1uD6CiDCYa1mkihyjk/view?usp=sharing

3. Integrated Short Course on "Numerical Modeling, Artificial Intelligence, and Geospatial Technology" by National Oceanographic and Maritime Institute (NOAMI), Bangladesh: https://drive.google.com/file/d/1PTWVStV_1XplhedD-Myj4wE5l2SRcbR2/view?usp=sharing

4. Certificate of participation in the Institutional Quality Assurance Cell (IQAC) of North South University.

5. Duke of Edinburgh Award (Bronze Standard)

6. International English Language Testing System (IELTS): Overall Band Score: 8

Educational Qualifications

1. Masters (March 2020- July 2021): **M.S. in Sustainability**, the University of Sydney.

Grades: Distinction (77.4%)

Research Topic: Time series comparative and quantitative assessment of eutrophication for Karnafuli River estuary, Bangladesh, and Hawkesbury Nepean River estuary, New South Wales, and management strategy analysis.

2. Masters (December 2018- December 2019): **M.S. in Disaster Science and Climate Resilience,** Faculty of Earth and Environmental Science, the University of Dhaka.

C.G.P.A. - 3.58

Thesis topic: Hydro-meteorological drought assessment of Rangpur district, Bangladesh.

3. Bachelors (February 2014- November 2018): **B.S. Honours in Disaster Science and Climate Resilience**, Faculty of Earth and Environmental Science, the University of Dhaka.

C.G.P.A. - 3.71

Thesis topic: Time Series Analysis of Subsidence in Barapukuria, Rangpur, Bangladesh using INSAR.

Relevant Skills

- **Remote sensing software skills:** ArcGIS, Google Earth Pro, Google Earth Engine, ENVI, SNAP QGIS, RClimdex, ILWIS, Sentinel Toolbox 1,2,3, ERDAS IMAGINE and capable of using any other GIS, RS and cartographic software
- **Data analysis software skills:** Inferential and descriptive statistical analysis with SPSS and R software and different statistical analysis methods, basic knowledge of Python, MATLAB, AND C programming, and Linux environment familiarity.
- Project work experience with the North South University, the University of Dhaka, Practical Action, UNDP, and Action Aid.
- Professional level qualitative and quantitative sustainability analysis, data quality management Advanced level of technical writing skills which encompasses proposal writing, fund management for research, and writing papers according to Scientific Journal standards.
- App creation for UNDP-sponsored app creation competition named 'Shake It'.

References:

1. Dr. Saiful Momen, Full-Time Faculty, Assistant Professor & Chair, dept. of Environmental Science and Management, North South University, Dhaka, Bangladesh. Email: saiful.momen@northsouth.edu
2. Dr. Md. Jakaria, Full Time Faculty, Professor, dept. of Environmental Science and Management, North South University, Dhaka, Bangladesh. Email: md.jakariya@northsouth.edu
3. Dewan Md. Enamul Haque, Associate Professor, Department of Disaster Science and Management Faculty of Earth and Environmental Sciences; Email: dewan.dsm@du.ac.bd
4. Distinguished Prof. Dr. Biswajeet Pradhan, Director: Centre for Advanced Modelling and Geospatial Information Systems (CAMGIS), UTS, Australia. Email: Biswajeet.Pradhan@uts.edu.au
5. Tapas Ranjan Chakraborty, ICT & Development Coordinator Oxfam, Dhaka 1206, Bangladesh; Email: TChakraborty@oxfam.org.uk