

EDUCATION

MS Student at the Department of Geosciences, Auburn University, AL-36849, USA

- **Working on Thesis:** Liquefaction probability of Dhaka city, Bangladesh
- **Expected Date of Graduation:** Fall 2024
- **Major Professor:** Ashraf Uddin, PhD
- John T. and Carol G. McGill Research Award, GSA, 2023
- GSA Southeastern Section Research Grant, 2023
- On To the Future (OTF) Travel Award, GSA, 2023
- Allsup Fellowship 2023, Auburn University, AL, USA
- GAB Research and Travel Grant 2023, Auburn University, AL, USA

MS in Geology (Geophysics) (2012-2013) University of Dhaka, Bangladesh

- **Thesis:** Subsidence of Dhaka city, Bangladesh
- **Major Professor:** Syed Humayun Akhter, PhD
- National Science and Technology Fellowship-2014, Bangladesh.

BS (Hons.) in Geology (2009-2012) University of Dhaka, Bangladesh

- SEG/Chevron Student Leadership Symposium (SLS) Travel Grant, 2013
- Amar Ekushey Hall, Dhaka University, Trust Fund Scholarship, 2013, 2012, 2011

TEACHING/MENTORING EXPERIENCES

Graduate Teaching Assistant

01 January 2023 to present

- Teaching, grading, and exam proctoring of Dynamic Earth Lab, Auburn University

Assistant Professor in University of Barishal (on education leave)

29 June 2022 to present

- Courses Taught- Engineering and Environmental Geophysics, Exploration Geophysics, Structural Geology, Optical Mineralogy, Regional Geology, Remote Sensing and GIS.
- Conducted geological field work with undergraduate and graduate students in Bangladesh.

Lecturer in University of Barishal

21 April 2019 - 28 June 2022

- Teaching, Research, Grading, Geological Fieldwork

COMPLETED RESEARCH PROJECTS

Bangladesh Water Development Board (Contract No.: CEIP-1/C3/S4)

Funded by World Bank

01 January 2020 - 21 December 2022

- Mission Leader of Long-Term Monitoring, Research and Analysis of Bangladesh Coastal Zone (Sustainable Polders Adapted to Coastal Dynamics) Project
- Led campaign GNSS survey in Southwestern part of Bangladesh.

Special Allocation Research Projects

Funded by Ministry of Science and Technology Bangladesh 2019-20; 2021-22; 2022-23

- InSAR Time Series Analysis of Subsidence in South-Western Coastal Region, Bangladesh: Barishal to Raipur Region.
- Site Suitability Analysis of a Sanitary Landfill Using Remote Sensing and GIS-based Multi-Criteria Decision Analysis technique in Barishal Metropolitan, Bangladesh.

- Coastal Vulnerability Assessment due to Climate Change along the Western Coast of Bangladesh: Using Geospatial Techniques.

University Grants Commission, Bangladesh Funded Projects **2019-20; 2021-22; 2022-23**

- Monitoring land use/ land cover change, urban growth dynamics and landscape pattern analysis in Barishal city, Bangladesh
- Monitoring the spatiotemporal dynamics of waterlogged area in Satkhira, Bangladesh using time series Landsat imagery
- The impacts of urban growth on the urban thermal environment in the Barishal City Corporation, Bangladesh.

Toxic Sites Identification Program (TSIP), Pure Earth

Funded by USAID

01 June 2016 - 19 June 2017

- Worked as an investigator to collect soil and water samples from informal recycling of used Lead-acid battery sites in Bangladesh.
- Sample analysis, interpretation, and presentation of results.

Dhaka University Earth Observatory

01 September 2013 – 19 June 2017

- Helped establish GNSS monuments around Dhaka
- Field GNSS data collection and processing.
- Seismic data collection and monitoring the BanglaPIRE project data collection.

CONFERENCE PROCEEDINGS

- **Jaman, M.H.**, and Uddin, A., 2023, Liquefaction probability from magnitude 7+ earthquake in Dhaka megacity, Bangladesh, *in* GSA Annual Meeting 2023, GSA.
- Steckler, M.S., Oryan, B., Mondal, D.R., Grall, C., Akhter, S.H., Wilson, C., **Jaman, M.H.**, Ballu, V., and Lindsey, E., 2020, Recent measurements of subsidence in the Ganges-Brahmaputra Delta, Bangladesh, *in* AGU Fall Meeting 2020, AGU.
- Aziz, M. H., Sikder, M, A., Kabir, M. L., **Jaman, M. H.**, Uddin, M. R., Rashid, M. H., Akter, A., Liu, X-C., Mccartor, D., Soil pollution from informal recycling of used Lead-acid battery in Bangladesh, *in* GSA Annual Meeting 2017, GSA.

PUBLISHED JOURNAL ARTICLES

- Steckler, M.S., **Jaman, M.H.**, Grall, C.J., Goodbred, S.L., Wilson, C.A., and Oryan, B., 2024, Contribution of campaign GNSS toward parsing subsidence rates by time and depth in coastal Bangladesh: *Frontiers in earth science*, v. 12, doi:10.3389/feart.2024.1354686.
- Khan, M.S., Mousumi, I.J., **Jaman, M.H.**, and Billah, M.M., 2023, Assessment of soil quality after constructing a closure dam on a river: *International journal of human capital in urban management*, v. 8, p. 279–290, doi:10.22034/IJHCUM.2023.02.09.
- Goswami, S., Rahman, S., Alam, M., Rahman, M., Rafiq, M., **Jaman, M.H.**, and Roy, D., 2022, Assessment of shoreline changes and the groundwater quality along the coast of kuakata, patuakhali, Bangladesh: *Inżynieria Ekologiczna*, v. 23, p. 323–332, doi:10.12911/22998993/149938.
- Ahmed, J., **Jaman, M.H.**, Saha, G., and Ghosh, P., 2021, Effect of environmental and socio-economic factors on the spreading of COVID-19 at 70 cities/provinces: *Heliyon*, v. 7, p. e06979, doi:10.1016/j.heliyon.2021.e06979.

Jaman, M. H., Mia, A. J., Islam, M. S., Ahmmed, M. H., Arafath, M. Y., Goswami, S., 2020, Morpho-dynamics of river bank and population migration along Bhairab, Rupsha and Majutkhali Rivers in Dighalia upazila, Khulna, Bangladesh: Barishal University Journal of Science and Engineering, v. 7, p. 11–25.

Khairunnesa, M., **Jaman, M.H.,** Noorunnahar, M., Ahmed, S., Hossain, M.D., and Bostami, A., 2020, Evaluation of existing poultry processing and marketing in the wet market of Gazipur city in Bangladesh: Progressive Agriculture, v. 31, p. 205–217.

Hossain, M.U., Rahman, L.A., Suhag, M.H., Nasrin, A., and **Jaman, M.H.,** 2019, Limnological studies of conserved man-made Lake Durgasagar at Barishal in Bangladesh and angiospermic floral diversity of the adjacent area: Barishal University Journal (Part 1), v. 6, p. 1–16.

Jaman, M. H., Rafiq, M. R., Rezwana, N., Islam, M. S., Mia, A. J., 2019, NDVI based vegetation change detection of Sundarbans due to the effect of cyclone ‘Bulbul’: Barishal University Journal Part 1, v. 6, p. 23–35.

WORKSHOPS/TRAININGS

SDEV-3550 Bangladesh **13-24 March, 2015**

- Life on a Tectonically Active Delta: A Diversity Tour to Sundarbans, conductor: Michael S. Steckler, Lamont Research Professor

NCED’s Summer Institute on Earth Surface Dynamics **12-21 August 2014**

- Delta building in a Delta Plume, Geomorphic, Remote Sensing study at St. Anthony Falls Laboratory, University of Minnesota

Seismic Interpretation in Fold-And-Thrust Belts **07-10 July 2014**

- Seismic section analysis and interpretation techniques in collaboration with Nanyang Technological University, Singapore, and University of Dhaka in Bangladesh

Seismic Hazard and Vulnerability Assessment and It’s Applications **01 June 2014**

- Training provided by Comprehensive Disaster Management Program (CDMP-II), Ministry of Disaster Management and Relief, Government of People’s Republic of Bangladesh.

BanglaPIRE Field School in Bangladesh **27 February-07 March 2014**

- Interaction of Sedimentation and Tectonics in the Ganges-Brahmaputra River Delta in collaboration with Lamont-Doherty Earth Observatory, Columbia University, Vanderbilt University, University of Minnesota, and University of Dhaka.

OTHER EXPERIENCES

Assistant House Tutor at Barishal University **20 October 2021 – 30 December 2022**

- Worked at Shere Bangla Hall to guide residential students for their education and accommodation.

Bangladesh Petroleum Exploration and Production Co. Ltd. **20 June 2017 – 18 April 2019**

- Worked as Assistant manager (Geophysics) in the Geophysical Division.
- Primary responsibility was to collect seismic data, process, and interpretation.

University of Dhaka Geophysical Society (UDGS) **01 January 2013 – 21 February 2014**

- Organized geophysical workshops as secretary to share knowledge with students.

BADHAN, Amar Ekushey Hall unit, Dhaka university **01 January – 31 December 2014**

- Worked as the President to encourage people to donate blood voluntarily.

GEOLOGICAL SOFTWARE EXPERTISE

- Kingdom
- Interactive Petrophysics
- ArcGIS Pro
- Rockworks
- Surfer

MAJOR COURSES TAKEN

- Tectonics
- Applied Geophysics
- Exploration Geophysics
- Geocommunication
- Sedimentology
- Petroleum Geology
- Geomorphology
- Mining Geology
- Economic Geology
- Petrology
- Minerology
- Structural Geology
- Hydrology
- Seismic Interpretation
- Geophysical Well-logging
- Engineering Geophysics
- Seismology
- Paleontology
- Environmental geophysics
- Geo-resources Management
- Fundamentals of Chemistry
- Electricity and Magnetism
- Advanced GIS
- Advanced Remote Sensing
- Introduction to Computing
- Marine Geology
- Geological Field Mapping

MEMBERSHIP

- Sigma Gama Epsilon (SGE)
- Geological Society of America (GSA)
- American Association of Petroleum Geologists (AAPG)

OUTREACH ACTIVITIES

Bangladesh Students Organization (BSO) at Auburn University 01 August 2023 to present.

- Working as the President to organize events that represent Bangladesh and her culture and help the new students who come from Bangladesh to study at Auburn University, USA.

NAME OF REFEREES

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