

# Mirza Md Tasnim Mukarram (He/Him)

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## EDUCATION

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|--------------------------------------------------------------------------------------------------------------------|-----------------------------------|
| <b>United International University (UIU)</b><br>PGD in Data Science                                                | Dhaka, Bangladesh<br>July 2024    |
| <b>Dhaka School of Economics, University of Dhaka</b><br>Masters in Environmental Economics                        | Dhaka, Bangladesh<br>July 2023    |
| <b>Military Institute of Science &amp; Technology</b><br>Bachelor of Science in Civil & Environmental Engineering. | Dhaka, Bangladesh<br>January 2019 |

## WORK EXPERIENCE

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| <b>University of IOWA, Department of Geographical &amp; Sustainability Sciences</b><br><b>Graduate Teaching Assistant (GTA)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Iowa, USA<br>August 2024-Till Date               |
| <b>Bangladesh Army- HQ 24 Engineer Construction Brigade</b><br><b>Further Development of Comilla University Project</b><br><b>Associate Environmental Engineer</b> <ul style="list-style-type: none"><li>Mapping land cover, natural assets, fragile urban system, climate risk, and vulnerable hotspots.</li><li>City profile, vulnerability assessment, and Greenhouse Gas emission report preparation.</li><li>Developed project reports and Terms of Reference (ToR).</li><li>Identify potential climate change and environmental protection-related projects.</li><li>Project monitoring and management</li><li>Preparing high-quality military maps for various projects and research works</li><li>Remote sensing database creation, monitoring, and ensuring the quality of datasets.</li><li>Identify potential climate change and environmental protection-related projects.</li></ul> | Dhaka, Bangladesh<br>February 2021 – July 2024   |
| <b>Climate Change Laboratory, Green Laboratory Testing Services-BEPZA</b><br><b>GIS &amp; Water Quality Specialist</b> <ul style="list-style-type: none"><li>Monitoring and conducting water and soil quality parameter tests</li><li>Conducting field visits and survey</li><li>Writing project reports</li><li>Preparing confidential water quality maps</li><li>Data acquisition from satellite and ground-based platforms.</li><li>Land suitability analysis.</li><li>Project completion report preparation.</li></ul>                                                                                                                                                                                                                                                                                                                                                                       | Dhaka, Bangladesh<br>January 2020 – January 2021 |
| <b>Department of Civil Engineering, Military Institute of Science &amp; Technology</b><br><b>Graduate Research Assistant (GRA)</b> <ul style="list-style-type: none"><li>Land suitability analysis.</li><li>Project completion report preparation.</li><li>GIS mapping and statistical data analysis</li><li>Land use map preparation using Rapid Eye and Landsat images.</li><li>Data acquisition from satellite and ground-based platforms.</li><li>Performing laboratory experiments</li><li>Conducting field visits outside Dhaka (FGD, KII, PI, etc.)</li><li>EIA consultancy</li><li>Preparing PowerPoints for seminars and conferences</li></ul>                                                                                                                                                                                                                                          | Dhaka, Bangladesh<br>January 2019-December 2019  |

## AWARDS & ACHIEVEMENTS

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| <ul style="list-style-type: none"><li><b>Best Research Project Award- 2018</b> among all engineering departments at MIST.</li></ul>                                                                                  | Dhaka, Bangladesh                          |
| <ul style="list-style-type: none"><li>Full Fund Scholarship from Korean Water Forum to attend the <b>5<sup>th</sup> Asia Pacific Youth Parliament for Water (APYFPW)</b> 2016 at DGIST, Daegu, South Korea</li></ul> | Daegu, South Korea                         |
| <ul style="list-style-type: none"><li>Full Fund Scholarship to attend the <b>9<sup>th</sup> Session of World Urban Forum</b> as a Delegate in 2017</li></ul>                                                         | Kualalumpur, Malaysia<br>Dhaka, Bangladesh |
| <ul style="list-style-type: none"><li>Cherag Roy Memorial Scholarship under Wild Life Conservation to attend Bangladesh Python Project 2016</li></ul>                                                                | Dhaka, Bangladesh                          |

- Awarded as The Planter of the Week at **Green in a Bottle Recycling Campaign**, North South University, Bangladesh Dhaka, Bangladesh
- **3<sup>rd</sup> Place** in Bangladesh at the **International Public Speaking Competition 2016** by the English-Speaking Union (ESU) of Bangladesh Dhaka, Bangladesh
- **2<sup>nd</sup> place** at Project Showcasing in **Environment Fest 2018**, Bangladesh University of Professionals Dhaka, Bangladesh
- **2<sup>nd</sup> place** at Project Showcasing in **Nuclear Fest 2018**, MIST

## SKILLS

**Computer Skills:** ArcGIS, Google Earth Engine, Python, Machine Learning, SPSS, STATA, Microsoft Office Products, Photoshop, Video Editing.

**Languages:** English (Full professional proficiency, IELTS Score: 7.5), Bangla (Native), Urdu and Hindi (Speaking)

## PEER REVIEWED PUBLICATIONS (4 out of 6)

- **Mukarram, M.Md.T.**, Kafy,A,A.Rukiya, Q.U., Chowdhury, Md.A., Das.(2023). Perception of coastal citizens on prospect of community-based rainwater harvesting system for sustainable water resource management. Resources, Conservation & Recycling (**IF-13.2, Cite Score:20.3, Elsevier**). <https://doi.org/10.1016/j.resconrec.2023.107196>.
- Das, A., Shuvo, R. M., **Mukarram, M. M. T.**, & Sharno, M. A. (Year). Energy Policy Landscape in the Developing Countries: A Stern Review and Meta-Analysis of Energy Policies of Bangladesh. Energy Strategy Reviews (**IF-8.2, Elsevier-Under Review**)
- Das.,A., Azeez.,S., **Mukarram, M.Md.T.** & Rakib.,A.,A. GIS Based Multi-Criteria Land Suitability Assessment for Future Urban Development in The Country Park Peripheries of Hong Kong. (**Heliyon- 1st Revision since June 2023**)
- Khan, M.A.K., Ferdous, J., **Mukarram, M.Md.T.**, Nawshin, N. and Rahman, M.T.U. Exploring safe water availability in southern coastal Bangladesh: An integration between insights of local people and water quality parameters. (Under submission)

## CONFERENCE PROCEEDINGS

- **Mukarram, M. M. T.**, & Rahman, M. T. U. (2023). Innovative Smart Boat Device for Real-Time Surface Water Quality Monitoring: A Low-Cost and Environmentally Sustainable Solution. In Proceedings of the International Conference on Planning, Architecture and Civil Engineering. Rajshahi University of Engineering & Technology, Rajshahi, Bangladesh.
- **Mukarram, M. M. T.**, & Das, A. (2023). Probing the Potential of Green Markets Towards Sustainable Tourism Development of Bangladesh: An Economic and Environmental Perspective. In Proceedings of the International Conference on Planning, Architecture and Civil Engineering. Rajshahi University of Engineering & Technology, Rajshahi, Bangladesh.
- Das, A., & **Mukarram, M. M. T** (2023). Co-Management of Localized Common Pool Natural Resource: Proposal for a Sustainable Fisheries Management Regime in Bangladesh. In Proceedings of the International Conference on Planning, Architecture and Civil Engineering. Rajshahi University of Engineering & Technology, Rajshahi, Bangladesh.
- Khan, M.A.K., Ferdous, J., **Mukarram, M.M.T.**, Nawshin, N. and Rahman, M.T.U. (2020). “Spatio-temporal variation of groundwater quality in Mongla Upazila using Inverse Distance Weighted Model.” Proceedings of the International Conference on Earth and Environmental Sciences & Technology for Sustainable Development (ICEEST 2020), 25-27 January 2020, Dhaka, Bangladesh
- Nawshin, N., Ferdous, J., **Mukarram, M.M.T.** and Khan, M.A.K. (2020). “Salinity Intrusion in Coastal Area of Bangladesh: Change in Crop Production System.” Proceedings of the 4th International Conference on Sustainable Development 2020, 18-19 February 2020, Dhaka, Bangladesh.
- **Mukarram, M.M.T.**, Khan, M.A.K., Ferdous, J., Rahman, M.T.U. and Nawshin, N. (2020). “Exorbitant shrimp cultivation inhibiting agro based livelihoods in Mongla Upazila of Bangladesh.” Proceedings of the 4th International Conference on Sustainable Development 2020, 18-19 February 2020, Dhaka, Bangladesh.
- Ferdous, J., **Mukarram, M.M.T.**, Khan, M.A.K. and Nawshin, N. (2020). “Local warming triggered by wetland loss in Dhaka city.” Proceedings of the 4th International Conference on Sustainable Development 2020, 18-19 February 2020, Dhaka, Bangladesh.
- Khaled,A.M., **Mukarram, M.M.T.**, Ashraf.,A., Islam,A., Rafid,S.A., Rahman,M. (2020). “Sensor Based Automated Rooftop Rainwater Collection System For Residential Use And Rainwater Quality Assessment Of Dhaka City.” Proceedings of 5th International Conference on Advances in Civil Engineering (ICACE-2020), 21-23 December 2020, CUET, Chattogram, Bangladesh.

## SHORT COURSES

- Google Earth Engine Study Hacks, Dhaka, Bangladesh
- Statistical Data Analysis NBICT Lab, Bangladesh
- STATA for Statistics and Data Analysis Bohubrihi, Dhaka, Bangladesh
- Urban Climate Change Short Course on “Building Climate Resilient Migrant Friendly Cities” 7th Annual ICCCAD (Duration: 5 days, Dhaka, Bangladesh) ICCCAD, Dhaka, Bangladesh
- Introductory E-course on Climate Change, (Duration: 1 month) UNCC: E-learn, Online Platform
- Causes of Climate Change (Duration: 1 month) University of Bergen, Online Platform
- Mapping & Spatial Analysis with ArcGIS Bohubrihi, Dhaka, Bangladesh
- Complete Course on ArcGIS

## WORKSHOPS AND TRAININGS

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- Zero Hungers, Zero Emissions University Workshop hosted by International Center for Climate Change and Development (ICCCAD) as a part of project organized by the Environmental Change Institute at University of Oxford, Oxfam BD (Duration: 5 days, Savar, Bangladesh) Savar, Bangladesh
- City Energy & Climate Action Plan Training on How to Set Targets & Develop a Plan Action Asia (Duration: 7 days, Kualalampur, Malaysia) Kualalampur, Malaysia
- Youth Organizations Role & Youth Advocacy to Achieving Sustainable Development Goals Green Dialogue Series: Sustainable Environment for Developing World hosted by (Duration:1 day, Dhaka, Bangladesh) Dhaka, Bangladesh

## SESSION GUEST SPEAKER & FACILITATOR

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- Workshop speaker & facilitator at “VNEC Earth Carnival 2018” hosted by Viquarrunnessa Earth Club, VNC, Dhaka, Bangladesh
- Workshop speaker facilitator at “**Workshop on Climate Change Resilience, Adaptation & Mitigation**” hosted by Department of Environmental Water Resources & Coastal Engineering Department, MIST, Dhaka, Bangladesh
- Workshop speaker facilitator at “**Workshop on Introduction to Climate Change Science**” hosted by Alpha Team Organization, Bangladesh University of Professionals, Dhaka, Bangladesh

## LEADERSHIP & VOLUNTARY SKILLS

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Name of the Project: **Climate Educate Project**

Designation:

- a. Regional Manager of South Asia (Nov 2018 – June 2019)
- b. Project Advocacy Head Bangladesh (Oct 2016 – Oct 2018)

Department: Climate Education and Advocacy

Responsibilities:

- Conducting climate change education related workshops, trainings and seminars in schools
- Preparing climate change education related documents
- Project Planning and Communication

Name of the Project: **Climathon | A global climate action program (2019)**

Organization: Gen Lab

Designation: Climate Mentor

Department: Program Management

Responsibilities:

- Training youths and participants
- Event management

Name of the Event: **World Water Congress & Exhibition**

Organization: International Water Association (IWA)

Designation: Paper abstract reviewer

Department: Reviewer Committee

Responsibilities:

- Abstract reviewing

## PROFESSIONAL AFFILIATION

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- Institute of Engineers Bangladesh (IEB), A-23821
- Asian Cities Climate Change Resilience Network (ACCCRN)
- Global Youth Climate Network