

Md Manzur Rahman, M.Sc.

Sub-Divisional Engineer (Civil)/Subject Matter Specialist
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1. FIELD OF INTEREST

- ✓ RS and GIS applications to solve water related problems
- ✓ Web based GIS tools for Decision Support
- ✓ Data Driven modelling and Machine learning in flood forecasting
- ✓ Planetary scale geospatial analysis using cloud computing/Google Earth Engine and geemap

2. EDUCATION

- Master of Science in Water Science And Engineering With Distinction
Specialization in Hydroinformatics: Modelling and Information Systems for Water Management from IHE Delft Institute for Water Education, Delft, the Netherlands (2018-2020) Overall GPA 8.7 out of 10.0
- Bachelor of Science in Civil Engineering from Khulna University of Engineering and Technology (2008-2012) Overall GPA 3.54 out of 4.00

3. PUBLICATION

- Rahman M.M.**, Alfonso L., Bhattacharya B., and Solomatine D. (2022) Performance of unsupervised water index-based classification techniques for surface water extraction from Landsat imagery (Manuscript Submitted)
- Rahman M.M.** (2020) Spatiotemporal Analysis of Multispectral Medium Resolution Satellite Imagery of Braided Rivers using Google Earth Engine: A case study on the Brahmaputra River, MSc Thesis, IHE Delft Institute for Water Education (<https://doi.org/10.25831/t3fj-p832>)
- Rahman M.M.** and Islam M.K. (2019) Determination of Virgin Compression Destructuring Line Parameters for Natural Clays, Journal of the SEAGS & AGSSEA Journal 50 (4), 15-20
- Rahman M.M.** and Fellenius B.H. (2019) Load-movement response by t-z and q-z functions, Journal of the SEAGS & AGSSEA Journal 50 (3), 11-19
- Rahman M.M.** (2018). Foundation Design using Standard Penetration Test (SPT) N-value (Book Chapters) (DOI10.13140/RG.2.2.23159.73123)
- Rahman M.M.** (2012). Effect of Sand Pile on Load-Settlement Response of Clayey Soils Bachelor's Thesis, Khulna University of Engineering and Technology, Khulna. (DOI10.13140/RG.2.2.33855.20640)

4. PROFESSIONAL EXPERIENCE

- **Sub-Divisional Engineer (Civil)** / Subject Matter Specialist, Bangladesh Water Development Board, Ministry of Water Resources, Bangladesh 26 January 2017 - Present.
 - Counterpart Committee Member of "Long Term Research and Analysis of Bangladesh Coastal Zone" under Coastal Embankment Improvement Project, Phase-I (CEIP-1) implementing by BWDB and financed by World Bank (IDA) since 11 April 2021
- **Assistant Engineer (Civil)**, Bangladesh Water Development Board, Ministry of Water Resources, Bangladesh 02 October 2014 to 25 January 2017.

5. PROFESSIONAL MEMBERSHIP

Member of Institute of Engineers, Bangladesh. Member ID: M/33979

6. PROFESSIONAL TRAININGS AND WORKSHOPS

- **Imagery in Action**, ESRI MOOC Program, 27 April 2022 to 08 June 2022 (6 Weeks), 2-3 hours of study per week - Certificate
- **Going Places with Spatial Analysis**, ESRI MOOC Program, 13 April 2022 to 25 May 2022 (6 Weeks), 2-3 hours of study per week - Certificate
- **SAR Data Processing and Its Application**, IIRS, ISRO MOOC Program, 04 April 2022 to 09 May 2022 (5 Weeks), Self-Paced - Certificate

- **A Five Days Workshop on Establishment of National Spatial Data Infrastructure (NSDI) for Bangladesh**, Survey of Bangladesh (SoB), 20-24 March 2022 (Duration: 5 Days), Brac CDM, Savar
- **Cartography**, ESRI MOOC Program, 16 February 2022 to 30 March 2022 (6 Weeks), 2-3 hours of study per week - Certificate
- **Do-It-Yourself Geo Apps**, ESRI MOOC Program, 26 January 2022 to 16 February 2022, 2-3 hours of study per week - Certificate
- **Echoes in space: Introduction into the principles and applications of radar remote sensing**, EO College, 01 January to 20 January (Duration: Self-Paced 5 Lessons 5hrs/Lesson) - Certificate
- **Basic Principles of Radar Backscatter**, EO College, 31 December 2021 (Duration: Self-paced 4 Lessons 2hrs/Lesson) - Certificate
- **Surface Motion Estimation with Synthetic Aperture Radar**, The Belt and Road International Geospatial Information Training Center (BRGTC), Guided and sponsored by China Association for Science and Technology, Organized by Association of Science & Technology Professionals, Deqing Geospatial Information Town, China, 03 December to 30 December 2021 (Duration: 10 Lectures 2hrs/Lecture) - Certificate
- **International Workshop on GIS Technology and Application**, which is co-sponsored by Chinese Society for Geodesy Photogrammetry and Cartography (CSGPC) and International Federation of Surveyors (FIG), and organized by SuperMap Software Co., Ltd, 30 November to 02 December (Duration: 3 Days) – Certificate
- **A Workshop on GIS Application in Hydrology using SuperMap**, SuperMap, Bangladesh, 26 November and 27 November 2021 (Duration-2 Days) - Certificate
- **Build a dynamic web-mapping dashboard with ArcGIS Portal**, ESRI South Asia, Dhaka, Bangladesh, 2 November 2021 (Duration: 4 Hours) - Certificate
- **Field survey on Discharge observation using ADCP and Bathymetry Survey using Eco sounder and GPS under Coastal Embankment Improvement Project (Phase-I)**, conducted by IWM, Bangladesh, 23 October and 24 October 2021 (Duration: 2 Days)
- **Workshop on Establishment of National Spatial Data Infrastructure (NSDI) for Bangladesh**, Survey of Bangladesh (SoB), 17 October 2021 (Duration: 1 Day)
- **Workshop on Firewall**, under BWCSR Component-B: SHEWS Project, 28 September 2021 (Duration: 1 Day)
- **ToT on Disaster Impact Assessment (DIA) Framework & Tool**, National Resilience Program (Programming Division Part), Dhaka, Bangladesh; 19 September to 21 September 2021 (Duration: 3 Days) - Certificate
- **Seminar on Establishment of National Spatial Data Infrastructure (NSDI) for Bangladesh**, Survey of Bangladesh (SoB), 27 June 2021 (Duration: 1 Day)
- **Animating Imagery for Crisis Reporting**, Google Earth Outreach training (Online), 24 June 2021 (Duration: 1 Day)
- **Training on Interactive Geo-Database for Coastal Zone (IGDCZ) Operations**, conducted intermittently by Joint Venture of DHI and Deltares in partnership with IWM, Bangladesh; 24 May 2021 to 30 May 2021 (Duration: 3 Days) - Certificate
- **Disaster Impact Assessment (DIA) and Digital Risk Information Platform (DRIP)**, National Resilience Program (Programming Division Part), Dhaka, Bangladesh; 23 March to 25 March 2021 (Duration: 3 Days) - Certificate
- **Workshop on Establishment of National Spatial Data Infrastructure (NSDI) for Bangladesh**, Survey of Bangladesh (SoB), 4 March 2021 (Duration: 1 Day)
- **GEOGLOWS-ECMWF Hydrological Forecasting and Bias correction Training for Bangladesh**, part of “Disruptive Knowledge, Information, and Data Services (KIDS) for Hydromet” knowledge series, the World Bank Group, 02 March 2021 (Duration: 1 Day)

- **Bangladesh Google Earth Engine (GEE) Training**, part of “Disruptive Knowledge, Information, and Data Services (KIDS) for Hydromet” knowledge series, the World Bank Group, 23 February 2021 (Duration: 1 Day)
- **An Open Ocean of Remote Sensing and In Situ Data for Science in the Cloud**, Webinar by NASA PO.DAAC, JPL, 24 March 2021 (Duration: 1 Day)
- **Water resource management using Internet of Things, remote sensing and citizen science**, eMWRE Webinar Series, 18 February to 16 March 2021 (Duration: 8 Days)
- **International Workshop on Application of Remote Sensing and GIS in Water, Environment, Land and Society**, Jointly Organized by IAWEES & IHE Delft organized at Bhopal, India. 01 December to 03 December 2020 (Duration: 3 Days) - Certificate

7. NOTABLE AWARDS AND ACHIEVEMENTS

- Orange Knowledge Program (OKP) Scholarship (2018-2020) for Higher Studies in the Netherlands
- University Merit Scholarship for good academic progress in 2010, 2011, 2012.
- 1st Position in Project Display (Software) in 4th Science Festival 2005 (inter college) organized by Notre Dame College Science Club
- 2nd Position in Science Project (Computer) in 3rd Science Festival 2004 (inter college) organized by Notre Dame College Science Club
- 6th Position in Software Presentation in Science Fair 2003 (inter college) organized by Holy Cross College Science Club

8. TEACHING

- a. Lecturer (visiting), Department of Civil Engineering, Sonargaon University from 08 May 2014
- b. Lecturer, Department of Civil Engineering, World University of Bangladesh 08 September 2013 to 01 October 2014

9. ENGLISH PROFICIENCY

Certified: 7 Weeks English Academic Writing Course held at IHE Delft, the Netherlands in the academic year 2018/2019

IELTS test taken on 08th April 2017 Test Report Form Number: 17BD000103RAHM001A

Test Results: Listening 7.0, Reading 8.5, Writing 6.0, Speaking 6.5, Overall Band Score 7.0 CEFR Level C1

10. SOFTWARE LITERACY

GIS and Remote Sensing: Google Earth Engine, ArcGIS, QGIS, ENVI

Hydraulic and Hydrological Modelling: HEC-RAS, HEC-HMS, MIKE 11, MIKE 21, MIKE SHE

Geotechnical Modelling: Plaxis 2D, Plaxis 3D

Structural Modelling: ETABS, STAAD Pro, STAAD Foundation, SAFE

Language: Python, JavaScript, C, FORTRAN, HTML5, CSS3, PHP

Database: PostgreSQL (PostGIS), MariaDB (Spatial), SQLite (Spatialite)

Server Application: Microsoft and Linux based Server, GeoServer, ArcGIS Server

11. Online Profiles

LinkedIn: <https://www.linkedin.com/in/md-manzur-rahman-8a9b08157/>

GitHub: <https://github.com/MdManzurRahman>

ResearchGate: https://www.researchgate.net/profile/Md_Manzur_Rahman

GoogleScholar: <https://scholar.google.com/citations?user=t0XOhJ4AAAAJ&hl=en>

Facebook: <https://www.facebook.com/manzur.rahman/>