

Mohammad Atikur Rahman

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Geographic Information System, GIS – Programming, Geophysics

RESEARCH INTEREST

My research interest is in geospatial analysis, environment and social vulnerability. I like to process raw data, understand factors that impact on social vulnerability, and predict potential hazardous zones for probable disaster (i.e., heat waves, droughts, hydrology, environmental resources, vegetation, land change, environmental hazards etc.). The research goal is to address human–environment problems combining my knowledge of GIS, Programming; take defensive measure; and develop models to address environmental impairments areas.

EDUCATION

Post Graduate Diploma – Information and Communication Technology Bangladesh Korea Institute of Information and Communication Technology Dhaka, Bangladesh	CGPA – 3.77	Oct 2019 – Oct 2021
Master of Science (Geophysics) University of Dhaka Dhaka-1000, Bangladesh	CGPA – 3.52	Feb 2014 – Dec 2015
Bachelor of Science (Geology) University of Dhaka Dhaka-1000, Bangladesh	CGPA – 3.24	Feb 2009 - Dec 2013

LANGUAGE PROFICIENCY

IELTS Band Score: 6.50 (December 2022)

Listening – 6.50 Reading – 6.00 Writing – 6.50 Speaking – 7.00

RESEARCH EXPERIENCES

1. Graduate Research, University of Dhaka (January 2014 – December 2015)

This research aimed to identify and map potential hazardous zone in a proposed residential area, Purbachal New Town, Dhaka during an earthquake event due to subsurface liquefaction. I used Standard penetration test (SPT) and peak ground acceleration (PGA) along with water table data, and prepared raster map.

2. Hydrogeological Survey, Payra-Kuakata Comprehensive Plan on Eco-Tourism (May 2018 – October 2019)

This project incorporated hydrogeological and geophysical investigations, groundwater modeling, and water quality mapping. A groundwater flow model was developed using MODFLOW to simulate groundwater flow at various depths. Both quality and quantity analysis were done using a wide range of dataset: lithology, pumping test, aquifer depth, water quality assessment, water levels assessment, aquifer characterization etc.

3. Dengue Risk Zone Mapping

(January 2019 – July 2019)

This project goal was to identify the dengue risk zones based on the dengue affected patient data. Patient's locations were plotted on an ArcMap to visualize the distribution pattern, identify risk zones, and compare with previous records. This project was conducted in collaboration with International Centre for Diarrheal Disease Research, Bangladesh (ICDDR) and Communicable Disease Control (CDC) of Directorate General of Health Services (DGHS).

4. GTCL Pipeline Survey and Mapping

(March 2021 – January 2022)

This project was proposed to identify and map existing gas supply pipeline network across the country. We used pipe (metal) locator to detect subsurface pipelines and GNSS RTK to collect additional data. Using the data ArcGIS maps were drawn showing six different gas supply lines across the country. Japan International Cooperation Agency (JICA) was our direct client and they contributed to quality control of this work.

JOB EXPERIENCES

1. Center for Geoservices and Research (CGR)

January 2020 – Present

Job Title: **Geologist**

Job responsibilities included-

- Arrange Resistivity survey, Shallow Seismic survey, Geospatial survey, ArcGIS Mapping, and quality control of these surveys
- Equipment maintenance, calibration, troubleshooting etc.
- Process raw data and with collaborate with experts in other organization/lab to interpret the data.
- Characterizing sub-surface rock type and making SPT log with sedimental data
- Ensure appropriate safety measurement for the survey teams in various weather condition.

2. Geomatics and Geoinformatics (GMGI) Solutions Limited

March 2018 – December 2019

Job Title: **Research Assistant**

Job responsibilities included-

- Primary GIS data collection, and process using ArcGIS mapping applications
- Creating high quality cartographic products for presentations and campaigns
- Checking data, tables, maps, and text for reports for consistency and accuracy

PROGRAMMING PROFICIENCY

LANGUAGES

- HTML, CSS
- Bootstrap
- PHP
- JavaScript, JQuery, Alpine
- Python
- Mysql

ENVIRONMENTS

- WordPress
- Laravel
- Anaconda
- Dot Net Framework
- Webflow
- cPanel

EQUIPMENT KNOWLEDGE

- GNSS RTK
- Total Station
- Handheld GPS
- UAV/ Drone
- Ground Penetrating Radar
- Eco Sounder
- Pipe locator
- SuperSTING R8
- Resistivity meter
- Multi-core cable

SOFTWARE SKILL

- ArcGIS
- Erdas Imagine
- ENVI
- LINUX
- Windows

PROFESSIONAL MEMBERSHIP

- Geological Society of America (GSA)
- American Association of Petroleum Geologists (AAPG)
- Society of Exploration Geophysicists (SEG)
- Bangladesh Geological Society (BGS)

PUBLICATIONS

1. **Rahman, M.A.**; Woobaidullah, A.S.M.; Quamruzzaman, C.; Rahman, M.M.; Khan, A.Z.; Mustahid, F. Probable Depth of Liquefaction in Rangpur City Corporation Area. *International Journal of Emerging Technology and Advanced Engineering* 2014, v. 4(11), 442-448
2. **Rahman, M.A.**; Woobaidullah, A.S.M.; Quamruzzaman, C.; Rahman, M.M.; Khan, A.U.Z.; Mustahid, F. Probable Liquefaction Map for Purbachal New Town, Dhaka, Bangladesh. *International Journal of Emerging Technology and Advanced Engineering* 2016, v. 6(3), 345-356
3. Rahman, M.M.; Nawrin, N.; **Rahman, M.A.**; Hasan R.; Akter, M.M.; Rashid, M.M. Groundwater Arsenic Contamination and Possible Alternatives for Arsenic Safe Drinking Water in Bangladesh. *International Journal of Emerging Technology and Advanced Engineering* 2016, v. 6(4), 285-294
4. Rahman, M.M.; Akter, M.M.; **Rahman, M.A.**; Uddin M.R.; Khan, F.; Rahman, M.N. Impacts of Excess Groundwater Abstraction and Potentials of Rainwater Harvesting to Overcome the Impacts in Dhaka City, Bangladesh. *International Journal of Emerging Technology and Advanced Engineering* 2016, v. 6(7), 64-71

WEBSITE DEVELOPMENT

(January 2016 – Present)

Using my programming skills, I have developed over 100 websites for clients from home and overseas. Some of the websites are listed below-

1. Booksbyblacks.com
2. Readandbrew.com
3. Cwdlaser.com.au
4. Autoproving.org
5. Kleartechzm.com
6. Luxvillacroatia.com
7. Passio.ch
8. Casalomaartglass.com
9. Marketmakersmethod.com
10. Reservations.galuppis.com
11. Checktest.app
12. Slouchee.com
13. Connectradiorental.com
14. anthophilevintage.com
15. Casalomaartglass.com