



# Mashoukur Rahaman

A young enthusiastic who wanted to pursue a professional position in GIS and Remote Sensing related fields. Also have interests including environmental, social, economic, disaster management and resettlement. Also, possess modeling and simulation techniques and integrating those with socio-economic aspects for better analysis.



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## CORE QUALIFICATIONS

- Efficiency in Image processing and Analysis
- Geospatial Analysis Techniques
- Excellent communications & presentation
- Project management
- Strong computer skills
- Handling Spatio- temporal data's
- Creative and analytical writing skill
- Disaster Management
- Organizing Ability
- Data analyzing techniques



### Education

Mar, 2016 – Mar, 2020

#### Bachelor of Urban and Regional Planning

Department of Urban and Regional Planning,  
Khulna University of Engineering & Technology, Khulna-9203, Bangladesh  
**CGPA: 3.22 (Scale 4.00)**

**Thesis Topic:** Land Use Change at Landscape Level by Major Catastrophic Events in Coastal Part of Bangladesh: A Remote Sensing-based Approach.

Jul, 2013 – Mar, 2015

#### Higher Secondary Certificate (HSC)

Chittagong Cantonment Public College, GPA: 4.67 (Scale 5.00)

Jan, 2008 – Feb, 2013

#### Secondary School Certificate (SSC)

Govt. Muslim High School, Chittagong. GPA: 5.00 (Scale 5.00)



### Work Experience

#### Research Assistant

Dept. of Civil Engineering, Chittagong University of Engineering & Technology (CUET)

Duration: 1<sup>st</sup> November 2020 – Present

**Project Fund:** UGC (University Grand Commission) and CUET, Bangladesh.

Project Title: An Approach to Estimate Landslide Susceptibility in the Chittagong Hill Tracts.

Responsibilities: (1) Identification of critical parameters responsible for landslides in Chittagong Hill Tracts (2) Developing a landslide susceptibility map for Chittagong Hill Tracts using Machine Learning algorithms like XGBoost, SVM, Random Forest and ANN (3) Validation of prepared susceptibility map through previous events and statistical evaluation.

#### Research Assistant

Dept. of Urban and Regional Planning, Khulna University of Engineering & Technology (KUET)

Duration: 1<sup>st</sup> March 2020 - Present

Project Title: Detecting Vegetation Change Concerning Rohingya Exodus in Teknaf and Ukhia Using Remote Sensing and Machine Learning Techniques.

Responsibilities: (1) To find out the impacts on different land use classes at a district level by the major Rohingya exodus using different geospatial techniques (2) Perform analyses to find the impacts of major Rohingya exodus on settlement expansion and vegetation degradation (3) To relate vegetation degradation to Rohingya camps location using the machine learning Algorithms (ANN, SVM, RF, ML) (4) To predict how settlement grows over the years and contributed to vegetation degradation using Cellular automata (CA)-Markov Chain model and Validation.

#### Research Assistant

Dept. of Urban and Regional Planning , Khulna University of Engineering & Technology (KUET)

Duration: 1<sup>st</sup> March 2019 - 1<sup>st</sup> March 2020

**Project Title: Land Use Change at Landscape Level by Major Catastrophic Events in Coastal Part of Bangladesh: A Remote Sensing-based Approach.**

Responsibilities: (1) Analyse the impacts of five major cyclonic catastrophic events in Bangladesh of the year 1988,1991,2007,2009,2019 using remote sensing techniques (2) Process satellite images of Landsat 5, Sentinel 2A & 2B before and after the catastrophe for each cyclonic catastrophic event (3) Conducting several analyses like CVA, Thematic change dynamics, Change detection statistics, Changes of indices to link disaster to land use change (4) Perform crop production variance to link disaster to crop production.

#### Internee

**Khulna Development Authority**

5 May, 2019 - 25 May, 2019

Preparation of GIS data, processing and spatial analysis; (2) Perform Suitability analysis in GIS for an industrial area (3) Budget allocation for different features and design 2D and 3D aspects of the area. (4) Writing the final project report.



#### Computer Skills

#### Software's

GIS	ArcGIS, QGIS
Remote Sensing	ERDAS Imagine, ENVI, TerrSet Geospatial Monitoring and Modeling
Spreadsheet Analysis	Microsoft Excel, SPSS
Planning and design	SketchUp
Presentation & Graphics	Microsoft PowerPoint, Adobe Photoshop
Video Editing	Wondershare Filmora

#### Programming Language

Python, MATLAB (For Machine Learning and Data Analysis)



#### Ongoing Research

1. Rahaman, M., Esraz-Ul-Zannat, M. Evaluating the impacts of major cyclonic catastrophes in coastal Bangladesh using geospatial techniques. SN Appl. Sci. 3, 727 (2021). <https://doi.org/10.1007/s42452-021-04700-7>
2. Rahaman, M. and Morshed, M.M. (2021). Detecting Vegetation Change Concerning Rohingya Exodus in Teknaf and Ukhia Using Remote Sensing and Machine Learning Techniques (Submitted).



#### Attended Trainings

1. Land use Land cover classification GIS, ERDAS, ArcGIS, ENVI at Udemy
2. Future Land Use with GIS - TerrSet - CA Markov - ArcGIS at Udemy
3. Complete Remote Sensing Image Analysis with ENVI Software

4. Post-Disaster Recovery: Theory to Practice  
a. Arranged by Institute of Disaster Management (IDM), KUET



### Extra-Curricular Activities

#### President

***Dream (Voluntary Blood Donation society of KUET)***

*13 March, 2019 - 7 March, 2020*

#### President(management)

***KUET Film Society***

*28 September, 2018 - 3 August, 2020*

#### Vice President

***TRY (Social Service Club of KUET)***

*10 April, 2019 - 14 March, 2020*

#### Office Secretary

***KUET Debating Society***

*May, 2016 - December, 2018*



### Achievements

1. Champion of BIP Debate tournament 2019
2. Champion of British Parliamentary Debate of Freshers League 2016(Speaker of the Final)
3. Finalist Plannation Debate Tournament 2018
4. Semi Finalist BIP Debate tournament 2017



### References

#### **Md. Esraz-Ul-Zannat**

*Assistant Professor*

Department of Urban and Regional Planning  
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#### **Dr. Md. Manjur Morshed**

*Assistant Professor*

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#### **Dr. Md. Aftabur Rahman**

*Associate Professor*

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