

# M. Rubaiat Islam

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## Objective

To explore the perfect working environment where I will be able to utilize my devotion and expertise in Climate Science and Earth Observation in the best possible way for achieving not only my goal but also the long term vision of the organization.

## Education

### MASTER OF SCIENCE | FEBRUARY 2015 | JAHANGIRNAGAR UNIVERSITY

- **Major:** Environmental Science and Technology
- **Minor:** Environmental Management
- **Related coursework:** Global Climate Changes and Environment, Water Resources Management in Bangladesh, Disaster Management in Bangladesh, Environmental Management Systems, Industrial waste: Treatment and Management Plans
- **Thesis Title:** Modeling the changes in the distribution of extreme temperature in Bangladesh
- **Result:** 3.43 out of 4.0

### BACHELOR OF SCIENCE | OCTOBER 2013 | JAHANGIRNAGAR UNIVERSITY

- **Major:** Environmental Science and Technology
- **Minor:** Environmental Management
- **Related coursework:** Meteorology and Climatic Process, Environmental Biogeochemistry, Environmental Modeling, Remote Sensing and GIS, Limnology and Oceanography, Instrumentation in Environmental Sciences, Nature Conservation, Environmental Impact Assessment and Planning, Hydrology and Water Resources, Analytical Chemistry, Environmental Biochemistry and Eco-Toxicology
- **Thesis Title:** Introducing Educational Global Climate Model (EdGCM) for improving education and research in climate change: Bangladesh Perspective.
- **Result:** 3.39 out of 4.0

## Research Experience

### Peer Reviewed Articles:

Saadat, A.H.M., **Islam, M.R.** and Rahman, S.H. "Introducing Educational Global Climate Model (EdGCM) for improving education and research in climate change: Bangladesh Perspective." Bangladesh Journal of Environmental Research, 10:31-42, 2012.

### Manuscript Currently Being Reviewed:

**Islam, M.R.**, Saadat, A.H.M., Rashid, M.B. and Hassan, M.S. "Exploring the changes in skewness and kurtosis of maximum temperature distribution in Bangladesh." submitted to Meteorology and Atmospheric Physics.

### **Manuscript in Preparation:**

**Islam, M.R.**, Saadat, A.H.M., Rashid, M.B. and Hassan, M.S. "Exploring the changes in skewness and kurtosis of minimum temperature distribution in Bangladesh."

**Islam, M.R.**, Hasan, M.M, Rahman, S. and Hassan, M.S. "Seasonal variability of rainfall and its long term trend in Bangladesh."

### **Scientific Presentation:**

**Islam, M.R.** "Impact of cumulus schemes on simulating heavy rainfall events in Bangladesh." Technical Session at Bangladesh Meteorological Department, 2016, Bangladesh, March 23, 2016.

**Islam, M.R.** "Modeling climate change in Bangladesh for better policymaking using IPCC-RCP Emission Scenarios." SERVIR Himalaya Youth Forum 2014, Bangladesh, May 5-9, 2014.

### **Academic Reports:**

**Islam, M.R.** "Dissertation on modeling the changes in the distribution of extreme temperature in Bangladesh." Department of Environmental Sciences, Jahangirnagar University, 2014.

**Islam, M.R.** "Project work on introducing Educational Global Climate Model (EdGCM) for improving education and research in climate change: Bangladesh Perspective." Department of Environmental Sciences, Jahangirnagar University, 2013.

**Islam, M.R.** "Field work on environmental and social impacts of industrialization on Bangshi River and adjacent region, Bangladesh." Department of Environmental Sciences, Jahangirnagar University, 2013.

**Islam, M.R.** "Field work report on the ecology and biodiversity of Sundarban - The largest mangrove forest." Department of Environmental Sciences, Jahangirnagar University, 2012.

**Islam, M.R.** "Field work report on socio-economic and environmental impact of Shrimp cultivation in Khulna Region, Bangladesh." Department of Environmental Sciences, Jahangirnagar University, 2012.

**Islam, M.R.** "Field work report on geo-environmental and social impacts of Coal Mining and Hardrock Mining in Dinajpur Region, Bangladesh." Department of Environmental Sciences, Jahangirnagar University, 2011.

**Islam, M.R.** "Field report on the geo-environmental and biological components of Sitakunda and adjacent regions, Bangladesh." Department of Environmental Sciences, Jahangirnagar University, 2010.

### **Computer Proficiency**

**Operating System:** Microsoft Windows (XP, 7, 8 and 10), Linux (CentOS, Ubuntu, openSUSE), Apple Mac OS (Snow Leopard, Lion)

**Office Programs:** Microsoft Office Suite 2010, 2013 and 2016 (Word, Powerpoint, Excel, OneNote, Outlook, Project and Visio), Open Office, LaTeX

**Programming Language:** Visual Basic, Python

**Scientific Analysis:** Weather Research and Forecasting Model (WRF), R-Statistics 3.1.1, MATLAB R2014a, SPSS 22, RockWorks 15

**Remote Sensing and GIS:** ESRI ArcGIS 10.1, ERDAS Imagine 2014, Exelis ENVI 5.1, Global Mapper 15, Trimble eCognition Developer 9, Google Earth, QGIS 2.6.0-Brighton, Google Map Maker

**Graphic Design:** Adobe Photoshop CS6, Adobe Illustrator CS6, Adobe Flash CS6, Adobe Dreamweaver CS6

**Web Design:** HTML5, CSS3, WordPress, JavaScript

## Training and Workshop

### Professional Training on Remote Sensing and Earth Observation

Jointly organized by Bangladesh Centre for Advanced Studies (BCAS) and International Centre for Integrated Mountain Development (ICIMOD) with financial and technical assistance from NASA and USAID to:

- Educate and inspire young people about geospatial science, earth observation and its potential to address climate change issues
- Provide Hands-on exercises with GIS software and GPS systems and online mapping resources
- Develop a platform and network for mutual sharing and learning of experiences among youth in Bangladesh

### Academic Training Module on Remote Sensing and GIS

Organized by the Department of Environmental Sciences of Jahangirnagar University to provide its students with the necessary theoretical and hands-on experience in:

- Different branches of Geographic Information Sciences (i.e. GPS, RS and GIS)
- Sources of geospatial data and their processing for applications like change detection and environmental modeling etc.
- Remote Sensing and GIS software packages like ERDAS Imagine ENVI, ArcView, ArcGIS etc. for agriculture, forestry, land use and change detection

## Leadership Activities

### Founder, Environmental Modeling and Monitoring Group (EnvMM)

- Developing a collaborative platform for the researchers working in the field of environmental modeling and monitoring
- Educating next generation environmental scientists with remote sensing and earth observation tools for sustainable environmental management and planning
- Provide policymakers with the information needed for developing a sustainable and resilient policy for the future generation

### Assistant Secretary, Society of Environmental Sciences

- Maintenance of seamless communication with the administrative members and partner institutions
- Strengthen the relationship between existing and former members of the Society of Environmental Sciences
- Management of wireless network for academics and students

## Professional Experience

### REMOTE SENSING SPECIALIST| BANGLADESH METEOROLOGICAL DEPARTMENT | JAN 2015 TO PRESENT

Agro-meteorology Division of Bangladesh Meteorological Department seeks to understand the effects of weather and climatic variability on agricultural production. As a remote sensing specialist, I am responsible for the incorporation of Remote Sensing and Earth Observation techniques into agro-meteorological research to provide policymakers with the information needed to develop an appropriate policy.

## **RESEARCH SCIENTIST | ENVIRONMENTAL MODELING AND MONITORING GROUP | AUG 2014 TO PRESENT**

As a research scientist of climate research department at Environmental Modeling and Monitoring Research Group, my primary responsibility is to perform and report research related to climate change and its dynamics. I have performed a number of research in the past and currently investigating the changes in the distribution of meteorological parameters in Bangladesh.

## **FIELD RESEARCHER | BANGLADESH CENTRE FOR ADVANCED STUDIES | MAY TO JULY, 2014**

My key responsibility in this project was to identify potentially polluting industries in Bangladesh Small and Cottage Industries Corporation (BSCIC) cluster at Konabari, Gazipur, Bangladesh. I was also assigned to find out the drainage network and wastewater discharge to nearby waterbody and water channel. Finally, I have produced referenced maps of the discharge network using Handheld GPS and IKONOS imagery products.

## **References**

### **Md. Shameem Hassan Bhuiyan**

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### **Dr. Syed Hafizur Rahman**

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