Email: ahmmainul-islam@uiowa.edu

Education Ph.D. in Geography

[2021- present]

University of Iowa, Iowa City, IA, USA

Master of Arts in Geography

[2019-2021]

Kent State University, Kent, OH, USA

Thesis: Monitoring Cyclonic Impact and Recovery Rate of Sundarban Mangrove Forest using

Remote Sensing

OhioLINK document number: kent1636397351317072

Bachelor of Urban and Regional Planning

[2012-2016]

Khulna University of Engineering & Technology (KUET), Khulna, Bangladesh **Thesis:** A Framework for Defining Slum and Slum Severity Index for Bangladesh

Work Experience

Graduate Research Assistant

[May, 2022- August, 2022]

Project: Bur Oak blight & photosynthesis: Predicting V_{cmax} and J_{max} using leaf hyperspectral and partial least squares regression

Responsibilities: I supervised and led a team of four members to collect physiological and spectral measurements on bur oak using the LICOR LI-6800 portable photosynthesis system and Malvern Panalytical ASD FieldSpec 4 spectrometer. I modified a statistical model for the project using R programing environment to predict bur oak leaf photosynthetic capacity parameters (V_{cmax} and J_{max}).

Graduate Teaching Assistant

[August, 2021- Present]

Organization: Department of Geographical and Sustainability Sciences,

University of Iowa, Iowa City, IA

Responsibilities: Teaching Foundations of GIS Lab (Fall 2021, Spring 2022, Fall 2022, Spring

2023)

Graduate Research Assistant

[June, 2020- August, 2020]

Organization: Biogeography and Landscape Dynamics Lab, Kent State University, OH **Responsibilities:** Developed clear sky observations and annual phenology of Sundarban mangrove forest, Developed Google Earth Engine (GEE) codes for calculating forest disturbance

Graduate Teaching Assistant

[August, 2019- May, 2021]

Organization: Department of Geography, Kent State University, OH

Responsibilities: Taught (in-person and remote) Physical Geography Laboratory to 7 sections of undergrad students. Assisted in Geography of Wine.

Analyst: GIS and Market Research

[December, 2018- June, 2019]

Organization: Inspira Advisory & Consulting Ltd., Dhaka, Bangladesh

Responsibilities: GIS Mapping of Local and National Humanitarian actors working for people in need at Cox's Bazar, Bangladesh in collaboration with Oxfam in Bangladesh.

GIS Intern, Program Office

[November, 2017- May, 2018]

Organization: United States Agency for International Development (USAID), Bangladesh **Responsibilities:** Map preparation (logistical and analytical maps), Data extraction, Geodatabase management, Training materials preparation, and Report writing

Manuscript

Islam, A H M Mainul & Assal, Timothy (2023). *Rapid, landscape-scale assessment of cyclonic impacts on mangrove forests using MODIS imagery.* Manuscript submitted for publication.

Conference Presentation

Islam, A H M Mainul., Meerdink, Susan., Griffin, Mitchell., Johnston, Miriam., Kraus, Emmeline., Pearson, Lauren., Skopec, Mary., Skibbe, Adam., Weinberger, Megan., Dannenberg, Matthew. 2022. Bur Oak blight & photosynthesis: Predicting V_{cmax} and J_{max} using leaf hyperspectral and partial least squares regression. *American Geophysical Union Annual Meeting (Poster presentation)*, *Chicago, Illinois*.

Kraus, Emmeline., Meerdink, Susan., Griffin, Mitchell., **Islam, A H M Mainul.,** Johnston, Miriam., Pearson, Lauren., Skopec, Mary., Skibbe, Adam., Weinberger, Megan., Dannenberg. 2022. Seasonal effects of the fungal pathogen *Tubakia iowensis* (bur oak blight) on the photosynthetic capacity of infected *Quercus macrocarpa* (bur oak). *American Geophysical Union Annual Meeting (Poster presentation), Chicago, Illinois.*

Islam, A H M Mainul., Assal, T.J. 2021. Tracking Cyclonic (Sidr) Impact and Recovery Rate of Mangrove Forest using Remote Sensing: A Case Study of the Sundarbans, Bangladesh. *American Association of Geographers Annual Meeting (virtual presentation), Seattle, Washington.*

Grants & Awards

- University of Iowa, Graduate Student Senate (GSS) Travel Award, Fall 2022, \$300
- Department of Geographical and Sustainability Sciences Travel Award, Fall 2022, \$500
- Kent State University, Graduate Student Senate (GSS) Graduate Student Support Award, Spring 2021, \$200
- Kent State University, Graduate Student Senate (GSS) Domestic Travel Award (DTA), Spring 2020, \$450

Affiliations

- Member, American Geophysical Union (AGU)
- Member, American Association of Geographers (AAG)
- Member, Bangladesh Institute of Planners (BIP)
- Member, Alumni Association of KUET Planners (AAKP)
- Ex-Member, Graduate Student Senate, Department of Geography, Kent State University
- Treasurer, Bangladeshi Students Association (BSA) at the University of Iowa