MOBASHSIRA TASNIM

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RESEARCH INTEREST

Remote Sensing; Landscape Ecology; Fire Ecology; and GIS.

APPOINTMENT

August 2024- Present	Graduate Research Assistant. Department of Geography, **The Pennsylvania State University, University Park, PA.**

ACADEMICS

August 2024 - May 2028	Doctoral Student, **The Pennsylvania State University**, University Park, State College, PA Advisor: Dr. Erica A. H. Smithwick.
August 2022 - May 2024	M.S. (Thesis) in Geography and Geospatial Science and Graduate GIScience Certificate **Kansas State University**, Manhattan, KS 66506. CGPA 4.00 out of 4.00. Advisor: Dr. Marcellus M. Caldas.
January 2016 - December 2020	Bachelor of Science (B.S.) in Geography and Environment. **University of Dhaka,** Bangladesh. CGPPA 3.76 out of 4.00

FELLOWSHIP/ SCHOLARSHIP/ GRANTS

2024	Fund for Excellence in Graduate Recruitment, College of Earth and Mineral Sciences, Pennsylvania State University.
2024	Stephen and Susan White Geography GTA Excellence Award, Kansas State University.
2023	Arts, Humanities & Social Sciences Small Grant Program, Kansas State University.
2023	Latinx Geographies Mutual Aid Award, AAG, 2023
2023	Graduate Student Council (GSC) Travel Award, Kansas State University
2023	American Associations of Geographer (AAG), Applied Geography Specialty Group Travel Grant.
2022	Kale (Steven) Graduate Scholarship, Kansas State University.
2022	College of Arts & Sciences Travel Award, Kansas State University.
2022	Dean's Award, In Recognition of Academic Excellence, Faculty of Earth and Environmental Science, University of Dhaka.
2021	National Science and Technology Fellowship, "Environmental Quality Assessment in the Coastal Tourist City of Bangladesh: A Study in Cox's Bazar", University of Dhaka.

TEACHING EXPERIENCE

August 2022 - May 2024	Graduate Teaching Assistant. Department of Geography and Geospatial Science, **Kansas State University.** GEOG 605 - Remote Sensing of Environment and GEOG 535 - Global Climatology and Climate Change Responsibilities: Teaching lab concepts and grading in Canvas.

RESEARCH EXPERIENCE

Graduate Research Assistant
- Agricultural landscape management for improved sustainability: Quantifying relationships, barriers and opportunities, US Department of Agriculture – Foundational and Applied Science Program. (May 2023- July 2023)
  ### *P.I: Katherine S. Nelson (SCAles Lab)*
- Solar Power as a Mechanism to Strengthen Food Security, Rural Development, and Land Conservation, funded by GFS. (May 2023- July 2023) and (June 2024).
  ### *P.I: Jason Bergtold and Marcellus M. Caldas.*

2021-2022   Research Assistant, University of Dhaka. Department of Geography.
- Unemployment and Health Issues of Fishermen in the Cyclone Prone Coastal Areas in Bangladesh: A Study in Kutubdia Island, Cox's Bazar.
- Performance-Based Shelter Planning and Design for Refugees: The Case of Rohingya Refugee Crisis in Bangladesh.

INTERNSHIP/SHORT COURSES

June 2023   Center for Land Surface Hazards (CLaSH) Graduate course, **Funded by NSF and EarthScope Consortium** at Colorado State University.

Learning outcome: Fieldwork in a post-wildfire landscape by utilizing,
- Uncrewed Aerial Vehicles (UAVs)
- Photogrammetry,
- Terrestrial Laser Scanning (TLS), and
- kinematic GPS

PUBLICATION

- Akter, A., & Tasnim, M. (2023). Mapping for Women's Evacuation Plans During Climate-Induced Disasters. In Open Mapping towards Sustainable Development Goals (pp. 251-260). Springer, Cham.

CONFERENCES

- Tasnim, M., Williams, S., Caldas M. M., Bergtold J. S., Natarajan, B., Pahwa, A. (2023) Optimizing Site Selection for PV Installation in Marginal Lands, poster presented at Kansas State Research Connection on October 18 at Alumni Center Banquet Room, Kansas State University.
- Tasnim, M., Williams, S., Caldas, M. M., Bergtold, J. S. (2023) Redefining Marginal Land within Kansas for Solar Site Suitability Analysis, poster presented at Great Plains/Rocky Mountain Annual Meeting (GPRM) on October 5 at Sioux Falls, South Dakota.
- Tasnim, M. and Caldas M. M. (2023) Urban Sprawl and its impact on mangrove forest cover in Ilheus City, Bahia, Brazil, poster presented at American Association of Geographers **(**AAG**)** Annual Meeting on March 24, Denver, Colorado. (Top 10 competitor in Remote Sensing Specialty Group).

PROFESSIONAL EXPERIENCE

2022   **Research Apprentice** at Bengal Institute for Architecture, Landscapes, and Settlements, Dhaka, Bangladesh.
- Research on developing the first ever 'Maritime Atlas of Bangladesh.'
- Turag river development and compact township of Dhaka west embankment and adjacent area.

2021   **Technical Assistant** *at the* Center for Environmental and Geographic Information Service (CEGIS), Dhaka, Bangladesh.
- GIS Mapping and spatial analysis.
- Digitization and map-making.

UNDERGRADUATE PROJECTS

- A GIS-based approach of analyzing potential sites for a Rainwater harvesting plant in Cox's Bazar.
- Assessment of the impacts and people's adjustment with flood 2017: A study on Ulipur, Kurigram.
- Environmental and socio-economic condition of Bhakurta, Savar.
- Land Use Pattern and Socio-economic Condition of Fakirhat Urban Area and Boiltali Mouza, Bagerhat

EVENTS AND SEMINARS

2021   Regional Workshop on "Circulating and Ecological Sphere Approach for Re-designing the City Regions Resilient" (CES), Date: 20-21 May 2021.
Discussion: Framing the circulating and ecological sphere approach within the context of needs of their respective city-regions in South Asia and Southeast Asia.

2021   Training On, "Empowering women in geospatial information technology – Bangladesh 2021 Mountain edition", 23 Aug 2021 to 26 Aug 2021 ICIMOD (International Centre for Integrated Development)".
Outcomes: Better understanding of GIS and RS, Using QGIS and ArcGIS.

2022   She Leads and She Inspires, a training and professional development program (December 2021 – June 2022) supported by the Humanitarian OpenStreetMap Team.

TECHNICAL AND PERSONAL SKILLS

Programming Language	:	R and Python
Software Skill	:	ArcGIS Pro, QGIS, TerrSet, Agisoft Metashape, FRAGSTATS, ENVI, Professional Pix4D mapper, CloudCompare, NetLogo, SPSS.
Affiliation	:	Kansas State University Graduate School Academic Committee, Gamma Theta Upsilon (GTU), DUSS (Dhaka University Science Society), DURS (Dhaka University Research Society), Dhaka University Environment Club, YouthMappers Bangladesh.
Achievements	:	Poster and Presentation (Champion at "*4th Raising Day Celebration of termite Society 2021 International Poster Competition*")