

Kazi Jihadur Rashid

Geospatial Researcher

Department of Geography, Florida State University

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Education

Florida State University, USA 2025–Present

Ph.D. Student in Geography

University of Chittagong, Bangladesh 2021

M.S. in Geography and Environmental Studies

University of Chittagong, Bangladesh 2019

B.S. in Geography and Environmental Studies

Research and Teaching Experience

Graduate Assistant in Teaching 2025–Present

Department of Geography, Florida State University

Instructor of Record (Summer); Teaching Assistant (Fall and Spring)

Research Assistant 2019–2020

Department of Geography and Environmental Studies, University of Chittagong

Scholarly Publications

In Press/Under Review

1. **Rashid, K. J.**, Li, Z., Tuli, R. D., and Biswas, R. N. (2026). Measuring Spatial Patterns of Urban NO₂ and Its Land Cover and Infrastructural Indicators Using GeoXAI. Status: Under Review.

Peer-Reviewed Journal Articles

1. Hoque, A., Mahmud, A., Rashid, K. J., and Biswas, R. N. (2026). Assessing Spatial Variability of Boro Rice (*Oryza sativa* L.) Phenology Across Different Climatic Zones in Bangladesh Using Sentinel-1 and -2 Time Series Data. *Agricultural Research*. doi:10.1007/s40003-025-00921-z
2. **Rashid, K. J.**, et al. (2025). Quantifying the Drivers of the Spatial Distribution of Urban Surfaces in Bangladesh: A Multi-Method Geospatial Analysis. *Remote Sensing*. doi:10.3390/rs17122050
3. Gao, X., ..., and Rashid, K. J. (2025). SAPC: A New Overland Flow Accumulation Algorithm with Enhanced Adaptability to Terrain Surface Variations. *Transactions in GIS*. doi:10.1111/tgis.70054
4. Tuli, R. D., Rashid, K. J., et al. (2025). Impact of Climatic Parameters on Spatiotemporal Variation of Air Pollutants Across Bangladesh. *Urban Climate*. doi:10.1016/j.uclim.2024.102263
5. Islam, S., Rashid, K. J., et al. (2025). Wavelet and Remote Sensing-Based Analysis of Urban Heat Island (UHI) of Megacity Dhaka and Its Interaction with Changing Climate. *Theoretical and Applied Climatology*. doi:10.1007/s00704-024-05294-x

6. **Rashid, K. J.**, et al. (2024). Vegetation Greening and Browning Trend and Their Physio-Climatic Drivers in Chittagong Division Using Geospatial Techniques. *Environment, Development and Sustainability*. doi:10.1007/s10668-024-05505-5
7. Biswas, R. N., Rashid, K. J., et al. (2024). Implications of Jhau (*C. equisetifolia*) Forest Deforestation on Coastal Landscape Ecology and Climate Change Adaptation in Cox's Bazar, Bangladesh. *Ecological Frontiers*. doi:10.1016/j.ecofro.2024.05.006
8. Biswas, R. N., Rashid, K. J., et al. (2024). Geomorphological Changes and Landscape Ecosystem Services Dynamics of the Bhasan Char Island in the Northern Bay of Bengal, Bangladesh. *Ocean and Coastal Management*. doi:10.1016/j.ocecoaman.2024.107096
9. Paul, A., Hoque, A., Mahmud, A., Esha, T. A., Rashid, K. J., et al. (2024). Water, Sanitation, and Hygiene Conditions and Health Outcomes: A Comparative Study Between Rohingya Refugees and Local People in Southeastern Bangladesh. *The Dhaka University Journal of Earth and Environmental Sciences*, 13(1), 47–61.
10. Biswas, R. N., ..., Rashid, K. J., et al. (2023). Effects of Rising Seas and Geomorphological Changes in the Islands of Northern Bay of Bengal. *Regional Studies in Marine Science*. doi:10.1016/j.rsma.2023.103250
11. Islam, M. N., ..., Rashid, K. J., and Bartell, S. M. (2023). Modeling on Metamorphosis of the Old Brahmaputra River and Associated Impacts on Landscapes in the Central Bengal Basin in Bangladesh. *International Journal of Earth Sciences*. doi:10.1007/s00531-023-02328-z
12. Islam, M. Y., ..., and Rashid, K. J. (2023). Quantifying Forest Land-Use Changes Using Remote Sensing and CA-ANN Model of Madhupur Sal Forests, Bangladesh. *Heliyon*. doi:10.1016/j.heliyon.2023.e15617
13. Akter, T., Rashid, K. J., and Rahman, M. A. (2023). Changes in Rainfall and Its Relationship with the Vegetative Environment in the Central-Coastal Region of Bangladesh. *Arabian Journal of Geosciences*. doi:10.1007/s12517-023-11313-4
14. Hridoy, A. E. E., ..., Rashid, K. J. (2022). Spatio-Temporal Estimation of Basic and Effective Reproduction Number of COVID-19 and Post-Lockdown Transmissibility in Bangladesh. *Spatial Information Research*.
15. **Rashid, K. J.**, et al. (2021). Spatiotemporal Changes of Vegetation and Land Surface Temperature in the Refugee Camps and Its Surrounding Areas of Bangladesh After the Rohingya Influx from Myanmar. *Environment, Development and Sustainability*. doi:10.1007/s10668-020-00733-x

Book Chapters

1. Ahmed, M., Rashid, K. J., and Toma, R. A. (2026). Integrating Geospatial Evidence into Urban Water Management: Lessons from Surface Water Dynamics in Dhaka, Bangladesh. In U. Chatterjee and A. I. Almulhim (Eds.), *Urban Waterscapes*. Springer Nature Switzerland. doi:10.1007/978-3-032-20649-7_8
2. **Rashid, K. J.**, et al. (2025). Urban Heat Island Effects on the Thermo-Ecological Environment: A Case from Asian Mega-City Dhaka, Bangladesh. In *Sustainability and Urban Quality of Life: Research, Policy and Practice*.

3. Tuli, R. D., Rashid, K. J., and Akter, T. (2024). Impact Analysis of the 2022 Flood Event in Sylhet and Sunamganj Using Google Earth Engine. In *Application of Geospatial Technology and Modeling for River Basin Management*.
4. **Rashid, K. J.**, et al. (2023). Exploring the Spatiotemporal Patterns and Driving Forces of Urban Growth in Dhaka Megacity from 1990 to 2020. In *Urban Commons, Future Smart Cities and Sustainability*.
5. Islam, S., Alam, M. R., and Rashid, K. J. (2023). Identification of Potential Rooftops for Gardening and Contributions of RTGs to Improve the Socio-Economic Condition and Promote a Sustainable Urban Environment in Bangladesh. In *Urban Commons, Future Smart Cities and Sustainability*.

Conference Presentations

1. **Rashid, K. J.** (2026). Land-Cover Trajectories and Long-Term Surface Warming Patterns in Florida. Presented at the *Florida Society of Geographers 62nd Annual Meeting*.
2. Akter, T., Rashid, K. J. (2020). Detection of Urban Surface Water Bodies in Chittagong City Using GIS and Remote Sensing. Presented at the *4th International Conference on Built Environment and Natural Disaster (ICBEN-4)*.

Professional Experience

Research Consultant	2020–2024
Remote Sensing Division, Center for Environmental and Geographic Information Services (CEGIS)	
Officer – Green Response	2024–2025
Department of Disaster and Climate Risk Management, Bangladesh Red Crescent Society (BDRCS)	

Awards and Funding

Graduate Assistantship, Florida State University	2025–Present
Geographical Society Travel Award, Florida State University	Feb 2026

Professional Services

Secretary	May 2026–Present
Graduate Researchers of Geography (GRG), Florida State University	

Journal Reviewer

Scientific Reports; Environmental Earth Sciences; Remote Sensing in Earth Systems Sciences; Theoretical and Applied Climatology; Environmental Monitoring and Assessment; Remote Sensing Applications: Society and Environment; Heliyon; Journal of Coastal Conservation; Discover Geoscience; Discover Cities.

Professional Memberships

American Society for Photogrammetry and Remote Sensing (ASPRS)	Jun 2026–Present
Florida Society of Geographers (FSG)	Jan 2026–Present

Technical Skills

Programming	: Python, R, JavaScript and SQL (basics)
Platforms	: Google Earth Engine, ArcGIS Pro, Erdas Imagine, QGIS
Methods	: Machine Learning, Explainable AI, Spatial Statistics, Spatiotemporal Modeling
Visualization	: Scientific Cartography, Data Visualization