

# ASHRAF UDDIN FAHIM

Assistant Professor | Urban & Transportation Planner | Doctoral Researcher (MEXT)

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## ABOUT ME

Urban and transportation planning academic and researcher specializing in sustainable cities, metro rail integration, urban mobility analytics, and data-driven planning. Assistant Professor at Pabna University of Science and Technology and a MEXT-funded doctoral researcher at Iwate University, Japan. Skilled in multivariate statistical modeling, machine learning with explainable AI, composite index construction, GIS, and remote sensing applied to travel behavior, accessibility equity, and urban resilience in the Global South. Author of numerous peer-reviewed publications in Q1–Q2 international journals, with a strong record of funded research, teaching, and student supervision, and a commitment to international, interdisciplinary collaboration.

## EDUCATION AND TRAINING

### Doctor of Philosophy (Ph.D.) in Urban & Transportation Planning

Iwate University, Urban Planning Laboratory — Morioka, Japan

[ Expected Sep 2026 ]

Doctoral research on smart and sustainable cities, metro rail integration, urban mobility analytics, and data-driven urban planning. Funded by the MEXT Scholarship, Government of Japan.

### Master of Urban & Regional Planning (MURP) & MSGED

Jahangirnagar University, Department of URP — Dhaka, Bangladesh

[ 2018 ]

Thesis: Natural Disaster Risk Assessment in Coastal Areas of Bangladesh — A Case Study on Cox's Bazar Sadar Upazila. • CGPA: 3.84 / 4.00.

### Bachelor of Urban & Regional Planning (BURP)

Jahangirnagar University, Department of URP — Dhaka, Bangladesh

[ 2016 ]

Thesis: Measuring Sustainable Urban Compact Form — A Case Study on Dhaka. • CGPA: 3.78 / 4.00.

## WORK EXPERIENCE

### Assistant Professor

Pabna University of Science and Technology, Dept. of URP — Pabna, Bangladesh

[ Jan 2023 – Present ]

- Teach undergraduate planning and transportation courses in English and supervise student research.
- Lead funded research projects and publish in international peer-reviewed journals.
- Contribute to curriculum development and departmental academic activities.

### Lecturer

Pabna University of Science and Technology, Dept. of URP — Pabna, Bangladesh

[ Jan 2021 – Jan 2023 ]

- Delivered lectures in urban planning and transportation and supervised undergraduate theses.
- Participated in accreditation-related and academic quality-assurance activities.

### Part-Time Lecturer

National Institute of Technology, Ichinoseki — Iwate Prefecture, Japan

[ Oct 2024 – Present ]

- Teach undergraduate students and supervise their research activities.

## RESEARCH PROJECTS & GRANTS

- University Grants Commission (UGC) of Bangladesh — research funding for FY 2021–22 (BDT 120,000 ≈ USD 1,200) and FY 2022–23 (BDT 130,000 ≈ USD 1,300).
- Ministry of Planning, Bangladesh — research grant for FY 2023–2025 (BDT 1,800,000 ≈ USD 18,000).
- Kubota Foundation, Japan — research grant for FY 2025 (JPY 1,200,000 ≈ USD 10,000).

## PUBLICATIONS

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### Peer-Reviewed Journal Articles

1. Md. Ashrafuzzaman Pramanik, Abu Nayem Md. Kayes, **Ashraf Uddin Fahim**, Kazi Md Arifin Jamil Jany (2026). Assessment of metro station development on urban landscape and property values: A TOD-based study in Dhaka, Bangladesh. *Case Studies on Transport Policy* (Q1), Elsevier, Vol. 24, June 2026, 101821. ISSN 2213-624X, 2213-6258.
2. Md. Ashrafuzzaman Pramanik, Abu Nayem Md. Kayes, **Ashraf Uddin Fahim**, Kazi Mst Hurajannat Tuba (2026). SME development for poverty alleviation using GIS and AHP-based multi-criteria decision analysis. *Sustainable Futures* (Q1), Vol. 11, Elsevier. ISSN 2666-1888.
3. **Ashraf Uddin Fahim**, Masaaki Minami (2025). Travel Mode Choices in connection to Metro Station by Multinomial Logit Model: A Case Study in Dhaka, Bangladesh. *Future Cities and Environment* (Q2), Vol. 11. ISSN 2363-9075.
4. **Ashraf Uddin Fahim**, Masaaki Minami (2025). Investigating the Users' Perception of Metro Rail Service Quality with Machine Learning Approach and Explainable Artificial Intelligence — Case Study: Dhaka, Bangladesh. *Environment and Urbanization ASIA* (Q2).
5. **Ashraf Uddin Fahim**, Masaaki Minami, Daqian Yang, Toru Kawashita (2025). Analysis of Metro Users' Perception towards Attributes related to Bicycle-Metro Integration: RIDIT and TOPSIS Model Approach. *Sci* (Q1). ISSN 2413-4155.
6. Yang, D., Minami, M., Sato, K., & **Fahim, A. U.** (2024). A Timeline-Based Study of the Early Reconstruction Phases in Ishikawa Prefecture Following the 2024 Noto Peninsula Earthquake. *Sustainability* (Q1). ISSN 2071-1050.
7. Yang, D., Minami, M., Sato, K., & **Fahim, A. U.** (2024). Investigating Post-Disaster Reconstruction since the 2011 Great East Japan Earthquake: A Study on the Otsuchi-cho, Iwate Prefecture through Timelines. *Sustainability* (Q1), 16(10), 3907.
8. Mohammed A. Mamun, **Ashraf Uddin Fahim**, Md Joynal Abedin, et al., David Gozal (2023). Knowledge of insulin use and its factors in patients with diabetes: a Bangladeshi exploratory study. *Journal of Public Health* (Q1), Springer Nature.
9. Pramanik, A., Rahman, S. U., & **Fahim, A. U.** (2023). Travel behavior characteristics of informal public mode users: A case study of E-rickshaw users of Rangpur City Corporation (RpCC) in Bangladesh. *RTS — Recherche Transports Securite* (Q3), 12p.
10. **Fahim, A.U.** and Miti, S.S. (2022). Vulnerability Assessment to the Natural Disaster in the Coastal Areas of Bangladesh: A Case Study on Cox's Bazar Paurashava. *Jahangirnagar Planning Review*, Vol. 19. ISSN 1728-4198.
11. Hasan, M. A. and **Fahim, A. U.** (2022). Measurement of Efficient Travel Time of a Highway Corridor Through Moving Observer Method: A Case Study on Savar-Manikganj Highway in Bangladesh. *Journal of Engineering Science* 13(1), 21–29. DOI: 10.3329/jes.v13i1.60559.
12. **Fahim, A. U.**, Rahman, M. M., Abir, F. A., Rahman, M., Fahad, M. A. (2022). An investigation of users' perception on non-motorized transport services in a municipality area: A cross-sectional study on Pabna municipality. *Case Studies on Transport Policy* 10(2) (Q2). DOI: 10.1016/j.cstp.2022.01.026. Elsevier.
13. Rana, M. S., Sarkar, S., Sadat, M. N., Tabassum, T., & **Fahim, A. U.** (2022). Predicting Potential Change in Land Cover and Its Effect on the Temperature of the Land Surface: A Case Study of Khulna City Corporation, Bangladesh. *Environment and Urbanization ASIA*, 13(2) (Q2), 247–264.
14. **Fahim, A. U.** and Miti, S. S. (2021). Natural Disaster Risk Assessment in the Coastal Area of Bangladesh: A Case Study on Cox's Bazar Paurashava. *BAUET Journal*, Vol. 3, Issue 1, pp. 28–42. ISSN 2521-5256.
15. Abir, F. A., Ahmmed, S., Sarker, S. H., and **Fahim, A. U.** (2021). Thermal and ecological assessment based on land surface temperature and quantifying multivariate controlling factors in Bogura, Bangladesh. *Heliyon* 7(9) (Q1). DOI: 10.1016/j.heliyon.2021.e08012. Elsevier.
16. **Fahim, A. U.** (2021). Problem Identification of Pedestrian Movement Way by Using PERS (Pedestrian Environmental Review System) Technique: A Case Study of Uttara Model Town. *Journal of Advances in Civil Engineering and Management*, Vol. 4, Issue 2.
17. **Fahim, A. U.**, Liza, S. J. and Lina, S. J. (2021). Study of Mental Stress Related with Lifestyle During COVID-19: A Case Study on Bangladesh. *International Journal of Education and Applied Sciences*, Vol. 3, No. 1, 113–124. ISSN 2345-6728.
18. **Fahim, A. U.** and Miti, S. S. (2020). Sustainable Urban Compact Form Measurement: A Case Study on Dhanmondi and Uttara. *The Jahangirnagar Review Part II: Social Science*, Vol. XLII. ISSN 1682-7422.

### Book Chapters

- Customers' Online Shopping Behavior in Bangladesh to the COVID-19 Situation and Reality Response.
- Travel Behavior Pattern and COVID-19: A Cross-Sectional Study among the Residents of Dhaka.

## TEACHING COURSES

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1. Research Methodology
2. Transportation Planning – Theory & Practical

3. Urban Governance
4. Transportation Engineering
5. Land Management and Development
6. Water Resources Planning
7. Site and Area Planning – Theory & Practical
8. Landscape Planning – Theory & Practical
9. Planning Laws
10. Tourism Planning
11. Elements of Architecture
12. Neighborhood Planning
13. Basic Design – Lab

## SUPERVISION OF BACHELOR GRADUATE THESES

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- Analysis of Road Capacity and Level of Service in the CBD area of Pabna Municipality: An Analytical Hierarchy Process Based Approach.
- Study of Service Quality and Customer Satisfaction of Using Public Bus Transportation: A Study of Public Buses in the City of Pabna and Sirajganj.
- Exploring the Factors of Children's Independent Urban Mobility in Bangladesh: A Case Study on Rajshahi City Corporation.
- The Role of NGOs in Socio-Economic Development: A Case Study in Bhangura Upazila, Pabna, Bangladesh.
- Analyzing the Pattern of Land Use Land Cover Change and its Impact on Land Surface Temperature: A Case Study of Bogura Municipality.
- Monitoring Agricultural Drought for the Pre-Kharif Season in the North-Western Region of Bangladesh using the Vegetation Health Index on a Geospatial Technique.
- Assessment of Pedestrian Level of Service (PLOS) in an Urban Area: A Case Study on Pabna Municipality, Bangladesh.
- Domestic Solid Waste Disposal Practice: A Case Study on Pabna Municipality.
- Exploring Non-Motorized Transportation Practice in a Municipal Area: An Investigation on Existing Conditions in Pabna Paurashava.

## SKILLS AND LANGUAGE

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**Technical Skills:** SPSS, Python, R, Stata, GIS and Remote Sensing for spatial, statistical, and qualitative analysis; sustainability assessment, environmental impact assessment, GIS-based environmental analysis, carbon emission and transportation analysis, machine learning for sustainability research, statistical and spatial modeling, and research project management.

**Languages:** English (professional) • Bangla (native) • Japanese (basic).

## PROFESSIONAL AFFILIATION

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- Institute of Planners, Bangladesh (BIP) — Member No. 1509.

## REFERENCES

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### **Professor Masaaki Minami, PhD**

Division of System Innovation Engineering, Faculty of Science and Engineering, Iwate University, Morioka, Japan.

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### **Dr. Md. Ashrafuzzaman Pramanik**

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