

Syed Mostofa Asif

PhD Student at Louisiana State University

Bert S. Turner Department of Construction Management, College of Engineering
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Education

Doctor of Philosophy in Construction Management (ongoing) **Aug. 24 to Present**

Louisiana State University
Baton Rouge, Louisiana, USA

Bachelor of Science in Civil Engineering **Feb. 13 to Sept. 17**

Bangladesh University of Engineering and Technology
Dhaka, Bangladesh
CGPA: 3.55/4.00, Merit Position: 44/234

Research Interest

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- Infrastructure resilience and risk reduction under natural hazards
 - Big data analytics for hazard monitoring and impact assessment
 - Spatial-temporal modeling of disruption, recovery, and cascading effects
 - Water resources construction project management

Publication

Asif, S. M., & Patrascu, F.-I. (2026). Short-term impacts of 2016 floods on the demographic change and housing prices in the state of Louisiana. *International Journal of Disaster Risk Reduction*, 136, 106055. <https://doi.org/10.1016/j.ijdrr.2026.106055>

Asif, S. M., & Patrascu, F. I. (2025). Shifts in population and housing affordability after Louisiana's 2016 floods (R. Ghanem, E. Johnson, S. Masri, & A. Olivier, Eds.). 14th International Conference on Structural Safety and Reliability - ICSSAR'25. <https://doi.org/10.23967/icossar.2025.121>

Research Experience

Louisiana State University

Graduate Research Assistant

Aug. 24 to Present

- Spatial-temporal analysis to examine how flooding and natural hazards influence population displacement, return patterns, and long-term community recovery.
- Analysis of post-flood housing market dynamics, housing count and price changes, and affordability to migration, and recovery lag.
- Analysis of large-scale consumer mobility and housing datasets to model disaster-induced migration, resettlement, and neighborhood-level vulnerability.
- Machine learning modeling for quantifying recovery lag, defined as the time between disaster event termination and the resumption of typical population movement and settlement patterns.

Bangladesh University of Engineering and Technology

Undergraduate thesis

Sept. 16 to Aug. 17

- Laboratory-scale bio-augmentation experiments for surface water treatment.
- Different bacterial dosing strategies with aerobic and anaerobic conditions.
- Measured and analyzed water quality parameters: pH, Dissolve Oxygen, Biological and Chemical Oxygen Demand, Total Organic Carbon, Ammonia-Nitrogen, Electrical Conductivity, Turbidity, Color etc.

Teaching Experience

Louisiana State University

Graduate Teaching Assistant

Jan. 25 to Present

- Assisting in teaching an undergraduate course (CM 4101: Construction Scheduling and Cost Control).
- Teaching project scheduling using Primavera P6 using hands-on demonstration and exercises.
- Preparation of course materials.
- Grading and assisting with measuring students and course learning outcomes.

Dhaka International University

Lecturer

Oct. 17 to Dec. 17

- Teaching courses- Construction Materials, Computer Aided Building Design, and Environmental Engineering I.
- Preparation of course materials.

Industry Experiences

Bangladesh Water Development Board

Sub-Divisional Engineer (Civil)

Aug. 23 to Aug. 24

- Project planning, and feasibility study including environmental and social impact analysis.
- Preparation of Terms of References, proposal for feasibility study.
- Cost estimation for the feasibility study.
- Stakeholder consultation (FGD, KII).
- Public procurement of services.
- Project management.

Assistant Engineer (Civil)

Oct. 18 to Aug. 23

- Site engineering: monitoring, quality control, and reporting on the implementation of physical components of construction projects (hydraulic structure, embankment, river training work, reinforce concrete buildings).
- Field and laboratory testing of soil, concrete and other construction materials.
- Cost estimation of construction projects.
- Public procurement of works.
- Project management and construction engineering.
- Preparation of development project proposal.

Power Grid Company of Bangladesh Limited

Assistant Engineer

Jul. 18 to Oct. 18

- Cost estimation of civil part of a substation building.
- Project management.

Computer Skills

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|---------------------|------------------|-----------|
| • Python, R, MATLAB | • ETABS, SAP2000 | • AutoCAD |
| • ArcGIS Pro | • Primavera P6 | |

Achievements

FY 2025-2026 Graduate Student Association Travel Award, LSU

May. 26

Travel support to attend the 51st Annual Natural Hazards Research and Applications Workshop in Broomfield, Colorado.

FY 2025-2026 Graduate Student Association Travel Award, LSU Travel support to attend the 39th International Conference on Coastal Engineering in Galveston, Texas.	April. 26
NSF Award #1841338, NHERI-CONVERGE, Lori Peek, PI. Travel support to attend the 51st Annual Natural Hazards Research and Applications Workshop in Broomfield, Colorado.	Mar. 26
FY 2024-2025 Graduate Student Association Travel Award, LSU Travel support to attend the 50th Annual Natural Hazards Research and Applications Workshop in Broomfield, Colorado.	Jun. 25
Poster Presentation at NSF NHERI GSC Collaborative Data Challenge 2 nd place	May. 25
Case study contest at 2nd EW: B National Environ + Challenge 2k17' organized by Environment Watch, BUET, Dhaka 3 rd place	Apr. 17
Creative Truss Bridge Model contest at AUST Civil Engineering Society, AUST, Dhaka 3 rd place	Jan. 17
AutoCAD contest at AUST Civil Engineering Society, AUST, Dhaka 3 rd place	Jan. 17
AutoCAD contest at BUET-ANWAR ISPAT 1st Bangladesh Civil Engineering Summit, 2016 Honorable mention	Nov. 16

Presentation

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- Asif, S. M., & Patrascu, F. I. (2026).** Recovery lag time between natural disasters end and day-to-day population movement return [**Oral presentation**]. 39th International Conference on Coastal Engineering, Galveston, Texas, USA.
- Asif, S. M., & Patrascu, F. I. (2025).** Recovery lag time between natural disasters end and day-to-day population movement return [**Poster presentation**]. Louisiana State University Construction Management Poster Presentation, Baton Rouge, Louisiana, USA.
- Asif, S. M., & Patrascu, F. I. (2025).** Insights from August 2016 Louisiana floods on population demographics and housing affordability [**Poster presentation**]. 50th Annual Natural Hazards Workshop, Denver, Colorado, USA.
- Asif, S. M., & Patrascu, F. I. (2024).** Impact of the August 2016 flood on the demographic change in the state of Louisiana [**Poster presentation**]. Louisiana State University Construction Management Poster Presentation, Baton Rouge, Louisiana, USA.
- Asif, S. M., & Tasnim, Z. (2017).** Stabilization of fly ash produced from incineration of medical waste [**Poster presentation**]. 2nd Environmental National Challenge (EN+ Challenge 2k17), BUET, Dhaka, Bangladesh.
- Ali, M. A., Saifur, S., & **Asif, S. M. (2017).** An integrated approach for a sustainable solution of solid waste in Dhaka city [**Oral presentation**]. 2nd Environmental National Challenge (EN+ Challenge 2k17), BUET, Dhaka, Bangladesh.
- Jabin, S., **Asif, S. M., & Khan, F. S. (2017).** PSF: A blessing for the coastal areas of Bangladesh [**Poster presentation**]. Inter-University Poster Presentation Competition on Water Management Issues, BUET, Dhaka, Bangladesh.

Training Received

Digital Resource and Content Accessibility Awareness Louisiana State University	Sept. 25
Cybersecurity Awareness Training 2025 Louisiana Board of Ethics	Sept. 25
Power-based Violence Prevention & Response Training Louisiana Board of Regents and Louisiana State University	Sept. 25
Public Procurement Management Bangladesh Public Procurement Authority	Mar. 24
Capacity Building Training Course for the Officers of Joint River Commission, Bangladesh Foreign Service Academy, Bangladesh	Dec. 23
Design, Implementation & Monitoring of BWDB Project Bangladesh Water Development Board	Aug. 23
Causes of Embankment Failure and Sustainable Solutions Institute of Water and Flood Management, BUET	Dec. 23
Bangladesh Meta Model Bangladesh Planning Commission	Sept. 22
Advanced Adaptive Delta Management on BDP 2100 Implementation Bangladesh Planning Commission	May 22
Hydrological Modelling and Remote Sensing Center for Environmental and Geographic Information Services (CEGIS)	Jan. 22
Practical Adaptive Delta Management Institute of Water and Flood Management, BUET	Oct. 21
Adaptive Delta Management Institute of Water and Flood Management, BUET	Sept. 21
Appraising Bangladesh Delta Plan 2100 Bangladesh Planning Commission	Feb. 21
Public Procurement Rules Bangladesh-2008 Bangladesh Water Development Board	Nov. 20
Foundation Training for Newly Appointed Civil Engineers of BWDB Bangladesh Water Development Board	Aug. 19
Electronic Government Procurement Bangladesh Water Development Board	Feb. 19
Accounts, Audit and Financial Management Bangladesh Water Development Board	Nov. 18

Online Courses

Machine Learning with Python IBM (www.coursera.org)	Dec. 25
Python for Data Science, AI & Development IBM (www.coursera.org)	Dec. 25

Assessing Extreme Weather Statistics using NASA Earth eXchange Global Daily Downscaled Projections (NEX-GDDP-CMIP6)	Sept. 25
NASA's Applied Remote Sensing Training	
Introduction to Earthquake Engineering	Oct. 22
National Highway Institute, US DOT	
General Superstructure Considerations for LRFD Bridge Design	Oct. 22
National Highway Institute, US DOT	
Earthwork Series: Grades and Grading	Oct. 22
National Highway Institute, US DOT	
Everyday Excel (Part 1, 2, and 3)	Apr. 21
University of Colorado Boulder (www.coursera.org)	
Python Basics	May. 20
University of Michigan (www.coursera.org)	

Affiliations

- Student Member, **American Society for Civil Engineers (ASCE)**, USA.
- Member, **Graduate Student Council, NSF NHERI**, USA.
- Associate Member at The **Institution of Engineers – Bangladesh (IEB)**, Bangladesh.

References

Dr. Flavia-Ioana Patrascu

Assistant Professor,
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Dr. Yimin Zhu

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