CAREER OBJECTIVE

To leverage my expertise in civil engineering as a dedicated faculty member, fostering a dynamic learning environment that inspires students to excel academically and equips them with practical skills essential for professional success in the field.

PERSONAL INFORMATION

- Name in Bengali: ড. মোঃ মতিউর রহমান
- Date of Birth: March 30, 1988
- Blood group: B+
- Gender: Male
- Religion: Islam
- Nationality: Bangladeshi
- Father's Name: Md. Aftab Uddin
- Mother's Name: Most. Moriom Nesa
- Marital status: Married
- Present Address: Afser Tower, R#02, B#Ka, Munsurabad R/A, Pabna Sadar, Pabna-6600, Bangladesh.
- Mailing Address: Associate Professor, Department of Civil Engineering, Pabna University of Science and Technology, Pabna-6600, Bangladesh.
- Permanent Address: Lakhiar Para, Kashim Bazar-5720, Sundarganj, Gaibandha.

RESEARCH INTERESTS

- Seismic Risk Assessment
- Structural Health Monitoring
- Structural Vibration Control
- Soil-Structure Interaction
- Structural Dynamic

DR. MD. MOTIUR RAHMAN

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EDUCATION

Ph.D. (2022)
Department of Civil & Environmental Engineering, Kunsan National University, Gunsan-si, Republic of Korea.

B.Sc. in Civil Engineering (2012)
Department of Civil Engineering, Rajshahi University of Engineering and Technology, Rajshahi, Bangladesh.

HSC (2007)
Kaunia College, Rajshahi Board, Bangladesh.

SSC (2005)
Nazimabad High School, Rajshahi Board, Bangladesh.

ACADEMIC EXPERIENCE

Associate Professor
April 2, 2024–Present
Department of Civil Engineering, Pabna University of Science and Technology, Pabna, Bangladesh.

Assistant Professor
September 5, 2015–April 1, 2024
Department of Civil Engineering, Pabna University of Science and Technology, Pabna, Bangladesh.

Lecturer
September 5, 2013–September 4, 2015
Department of Civil Engineering, Pabna University of Science and Technology, Pabna, Bangladesh.

Lecturer
November 16, 2012–July 10, 2013
Department of Civil Engineering, World University of Bangladesh, Dhaka, Bangladesh.

PUBLICATIONS

Journal Articles

1. **Rahman MM**, Nahar TT, Kim D. Residual Strength evaluation of steel cabinet in nuclear power plant during a fire event, Steel and Composite Structures, 54(5). 2025. DOI: https://doi.org/10.12989/scs.2025.54.5.383
2. Nahar TT, **Rahman MM**, Kim D. Drift damage limit estimation based on cracks of concrete gravity dam considering dam-foundation interaction. Journal of Structural Integrity and Maintenance, 9(3). 2024. DOI: https://doi.org/10.1080/24705314.2024.2390735.
3. Bigdeli A, **Rahman MM**, Kim D. Vibration control of low-rise buildings considering nonlinear behavior of concrete using tuned mass damper. Structural Engineering and Mechanics, 88(3). 2023. DOI: https://doi.org/10.12989/sem.2023.88.3.209.

HOBBIES

- Travelling
- Playing cricket
- Reading books
- Computer programming
- Outing with family and friends

PROFESSIONAL MEMBERSHIP

- Member, IEB, BD
- Affiliate Member, ASCE, USA
- Researcher, Korean National R&D Project, ROK.

LANGUAGE SKILLS

- Bengali (native) ★★★★★
- English ★★★★½

COMPUTER PROGRAMMING SKILLS

- MATLAB ★★★★★
- Python ★★★★★
- C/C++ ★★★☆☆

COMPUTER SOFTWARE SKILLS

- OpenSees ★★★★★
- ABAQUS ★★★★★
- ANSYS ★★★★☆
- SAP2000, ETABS ★★★★★
- CSiBridge, STAAD.Pro ★★★★☆
- midas Gen, Civil, GTS NX ★★★★☆
- AutoCAD ★★★★★
- MS Word, Excell, PowerPoint, Visio ★★★★★
- LS-DYNA ★★★★☆

THESIS SUPERVISION

Undergraduate:

- Title: Numerical Evaluation of Aggregates Shape Effect on Concrete Strength Considering Meso-Scaling Modeling
  - Institution: PUST, BD
  - Date: March, 2024
- Title: Evaluation of Waste Paper Ash as A Subgrade Stabilizing Material
  - Institution: PUST, BD
  - Date: March, 2024
- Title: Evaluation of Special Shape Effect Of Column In Reinforced Concrete Frame Structure
  - Institution: PUST, BD
  - Date: March, 2024

4. Park D-W, Le THM, **Rahman MM**, Shin I-S. Numerical Simulation Study on the Applicability of Lightweight Foamed Soil Backfill of Railway Bridge Structure under Train and Seismic Impacts. KSCE Journal of Civil Engineering, 27(2). 2022. DOI: https://doi.org/10.1007/s12205-022-1084-3.
5. Hasan MM, Yun JS, **Rahman MM**, Choo, YW, Han J-T. Centrifugal Test Replicated Numerical Model Updating for 3D Strutted Deep Excavation with the Response-Surface Method. Applied Sciences, 12(20), 10665. DOI: https://doi.org/10.3390/app122010665.
6. **Rahman MM**, Nahar TT, Kim D, Park, DW. Numerical modeling and shake table test for seismic response evaluation of an auxiliary building in NPP with reinforced concrete shear wall. Nuclear Technology. 2022:1-18. DOI: https://doi.org/10.1080/00295450.2022.2033597.
7. **Rahman MM**, Nahar TT, Kim D, Park, DW. Seismic performance evaluation of base-isolated nuclear power plant reactor building considering aging effect of isolation device. Journal of Nuclear Science and Technology. 2022:1-13. DOI: https://doi.org/10.1080/00223131.2022.2063959.
8. **Rahman MM**, Nahar TT, Kim D, Park, DW. Location sensitivity of non-structural component for channel-type auxiliary building considering primary-secondary structure interaction. International Journal of Engineering. 2022; 35(7):1268-1282. DOI: https://dx.doi.org/10.5829/ije.2022.35.07a.06.
9. Nahar TT, **Rahman MM**, Kim D. Variation of reliability-based seismic analysis of an electrical cabinet in different NPP location for Korean Peninsula. Nuclear Engineering and Technology. 2022; 54(3):926-939. DOI: https://doi.org/10.1016/j.net.2021.09.026.
10. **Rahman MM**, Nahar TT, Kim D. FeView: Finite element model (FEM) visualization and post-processing tool for OpenSees. SoftwareX. 2021; 15:100751. DOI: https://doi.org/10.1016/j.softx.2021.100751.
11. **Rahman MM**, Nahar TT, Kim D. Effect of frequency characteristics of ground motion on response of tuned mass damper controlled inelastic concrete frame. Buildings. 2021; 11(2):74. DOI: https://doi.org/10.3390/buildings11020074.
12. **Rahman MM**, Nahar TT, Baek G, Kim, D. Seismic response characterization of shear wall in auxiliary building of nuclear power plant. Journal of the Earthquake Engineering Society of Korea. 2021; 25(3):93-102. DOI: http://doi.org/10.5000/EESK.2021.25.3.093.
13. Nahar TT, **Rahman MM**, Kim D. Damage index based seismic risk generalization for concrete gravity dams considering FFDI. Structural Engineering and Mechanics. 2021; 78(1):53-66. DOI: http://dx.doi.org/10.12989/sem.2021.78.1.053.
14. Nahar TT, **Rahman MM**, Kim D. Seismic capacity evaluation of fire-damaged cabinet facility in a nuclear power plant. Nuclear Engineering and Technology. 2021; 53(4):1331-1344. DOI: https://doi.org/10.1016/j.net.2020.09.004.
15. Nahar TT, **Rahman MM**, Kim D. Effective safety assessment of aged concrete gravity dam based on the reliability index in a seismically induced site. Applied Sciences. 2021; 11(5):1987. DOI: https://doi.org/10.3390/app11051987.
16. Atauzzaman M, **Rahman MM**, Hasan MT, Abdulla-Al-Limon, M. Effects of granulated waste glass and micro-steel fiber on shear strength parameters of sand. International Journal of Geological and Geotechnical Engineering. 2019; 5(2):35-42. DOI: https://doi.org/10.37628/jgget.v5i2.563.
17. **Rahman MM**, Alim MA, Sumaiya, M. Variability in the geotechnical properties of soils of barind tract in Bangladesh. International

CONDUCTED COURSES

- CE 1203: Engineering Mechanics
- CE 2103: Engineering Materials
- CE 2111: Mechanics of Materials-I
- CE 2121: Fluid Mechanics-I
- CE 2205: Numerical Methods & Computer Programming
- CE 2213: Mechanics of materials-II
- CE 3131: Geotechnical Engineering-I
- CE 3233: Geotechnical Engineering-II
- CE 3251: Transportation Engineering-I
- CE 4131: Geotechnical Engineering-III
- CE 4141: Environmental Engineering-II
- CE 4235: Geotechnical Engineering-V
- CE 4245: Solid Waste Management
- CE 2103: Strength of Materials (EEE)
- CE 4203: Elements of Civil Engineering Structures (URP)
- CE 1100: Civil Engineering Drawing-I
- CE 1200: Drawing & CAD Project
- CE 1202: Practical Surveying
- CE 1210: Civil Engineering Drawing-II
- CE 2110: Title: Details of Construction
- CE 2208: Numerical Methods & Computer Programming Sessional
- CE 2220: Details of Estimating
- CE 3132: Geotechnical Engineering Sessional-I
- CE 3234: Geotechnical Engineering Sessional-II
- CE 3252: Transportation Engineering Sessional-I
- CE 4152: Transportation Engineering Sessional-II
- CE 4212: Structural Analysis & Design Sessional-IV
- CE 4230: Geotechnical Engineering Sessional-III
- CE 4210: Structural Analysis and Design Sessional –III

Journal of Engineering Applied Sciences and Technology. 2017; 2(6).

18. Nahar TT, **Rahman MM**. Performance of different bracing system on displacement of first soft storied steel building under seismic load. International Journal for Research in Applied Science and Engineering Technology. 2017; 5(9):530-534. DOI: https://doi.org/10.22214/IJRASET.2017.9077.
19. **Rahman MM**, Nahar TT. Effect of pH on shear strength behavior of granular soil. Global Journal of Research in Engineering. 2015; 15(1):31-24.
20. **Rahman MM**, Nahar TT. Influence of marble dust on shear strength behavior of sand. Journal for Research & Development in Technology. 2015; 4(2):28-35.
21. Nahar TT, **Rahman MM**. Performance of solid waste ash (SWA) as partial replacement of cement and glass powder (GP) as partial replacement of sand in concrete. International Journal for Research & Development in Technology. 2015; 4(2):23-27.
22. Nahar TT, **Rahman MM**. Strengthening of RCC beams using bamboo sticks. International Journal of Advanced Science and Technology. 2015; 79:15-24. DOI: http://dx.doi.org/10.14257/ijast.2015.79.02.
23. Nahar TT, **Rahman MM**, Haque MR, Saha, AK. Effect of wire mesh on the strength of RCC beams repaired using ferrocement layers. International Journal for Research & Development in Technology. 2014; 1(1):13-18.
24. Saha AK, Haque MR, Nahar TT, **Rahman, MM**. Application of traffic management plan a sustainable solution of traffic congestion in Pabna city, Bangladesh. International Journal of Recent Development in Engineering and Technology. 2013; 1(3):11-15.
25. Saha AK, Ahmed B, **Rahman M**, Nahar TT. Analysis of traffic congestion and remedial measures at traffic mor in Pabna city, Bangladesh. International Journal of Recent Development in Engineering and Technology. 2013; 1(2):23-26.
26. **Rahman MM**, Shaha AK, Haque MR, Nahar TT. Effect of burnt solid wastes on shear strength behavior of granular soil. International Journal of Advanced Scientific Engineering and Technological Research. 2013; 2(3):10-16.
27. Ahmed B, Alim MA, **Rahman MM**. Effect of fine materials on shear strength behavior of granular soil. International Journal of Advanced Scientific Engineering and Technological Research. 2013; 2(2):8-18.

Conference Proceedings

1. Hasan MM, **Rahman MM**, Yang D, Kim JJ, Wook CY, Kim D. Numerical validation of the 3D geostatic model of the strutted excavation in the sand with a centrifugal test. Proceedings EESK Conference; 2022 Sep. 22-23; Jeju Island, Republic of Korea.
2. Nahar TT, **Rahman MM**, Kim D. Seismic capacity estimation of fire-damaged electrical cabinet in NPP due to material strength degradation. Proceedings of the Earthquake Engineering Society of Korea (EESK) Conference; 2021 March 19; Online: Earthquake Engineering Society of Korea
3. **Rahman MM**, Nahar TT, Kim D. Seismic reliability assessment of calibrated concrete gravity dam using high-dimensional model representation and Cornell's approach: a case study. Proceedings of the 2nd International Conference on Earthquake Engineering and Post Disaster Reconstruction Planning; 2019 April 25-27; Bhaktapur, Nepal: KhEC & KhCE.
4. **Rahman MM**, Nahar TT, Chang S. Vibration control of concrete structure by TMD considering non-linear effects of materials under seismic excitation. Proceedings of the Korea Institute for Structural

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CONF./SEMINARER ATTENDED

- Seminar on the performance evaluation of asphalt mixtures and geosynthetic interlayer reinforced asphalt pavements; Speaker: Dr. Richard Kim, Jimmy D. Clark Distinguished University Professor; Period: April 26, 2022; Organized by Kunsan National University; Venue: University-Industry Cooperation Center, KSNU, ROK.
- Earthquake Engineering Society of Korea Conference; Period: June 19-22, 2011; March 19, 2021; Organized by: EESK, ROK; Venue: online.
- Korea Institute for Structural Maintenance and Inspection Autumn Conference; Period: October 9-10, 2019; Organized by: KSMI; Venue: Hanwha Resort Haeundae, Busan, ROK.
- International Conference on Earthquake Engineering and Post Disaster Reconstruction Planning; Period: April 25-27, 2019; Organized by: KhEC & KhCE; Venue: KhEC, Bhaktapur, Nepal.
- International Conference on Planning, Architecture and Civil Engineering, Period: February 7-9, 2017, Organized by: Faculty of CE; Venue: Dept. of CE, RUET, BD.

TRAINING

- Course: "SPSS Statistics Basic" Institute: Data Solution Inc., ROK.
- Course: "Community Participation and Management of Water Supply & Sanitation" Institution: ITN-BUET, BD
- Course: "Impact of climate change on water and sanitation sector in Bangladesh" Institution: ITN-BUET, BD.

Maintenance and Inspection Autumn 2019 Conference; 2019 October 10-11; Hanwha Resort Haeundae, Busan, Republic of Korea: KSMI.

5. Nahar TT, **Rahman MM**, Chang S, Kim D. Failure risk deaggregation for concrete gravity dam based on different damage stages in seismic zone. The Korea Institute for Structural Maintenance and Inspection Fall 2019 Conference; 2019 October 10-11; Hanwha Resort Haeundae, Busan, Republic of Korea: The Korea Institute for Structural Maintenance and Inspection.
6. Nahar TT, **Rahman MM**, Cao A-T, Kim D. Seismic risk assessment based on drift ratio for steel frame using high dimensional model representation and incremental dynamic analysis. Proceedings of the 2nd International Conference on Planning, Architecture and Civil Engineering; 2019 February 07-09; Rajshahi, Bangladesh: Faculty of Civil Engineering, RUET.
7. Nahar TT, **Rahman MM**, Cao A-T, Kim D. Strategy of cumulative absolute velocity for earthquake risk assessment of concrete gravity dam. Proceedings of the 2nd International Conference on Earthquake Engineering and Post Disaster Reconstruction Planning; 2019 April 25-27; Bhaktapur, Nepal: KhEC & KhCE.
8. Nahar TT, Cao A-T, **Rahman MM**, Islam MA, Kim D. Seismic analysis of concrete gravity dam considering various water levels and soil-structure interaction. Proceedings of the International Research Colloquium; 2019 June 29; ASEAN-Korea Centre, Seoul, Republic of Korea: SONSIK, PICO and BSAK.
9. **Rahman MM**, Alim MA, Shahjalal M. Permeability measurement of granular materials and development of an equation. Proceedings of International Conference on Planning, Architecture and Civil Engineering; 2017 February 09-11; Rajshahi, Bangladesh: Faculty of Civil Engineering, RUET.

COMPLETED RESEARCH PROJECTS

1. Effect of scrap tires as a partial replacement of coarse aggregate on ductile behavior of concrete frame, Funder: UGC, BD, 2023-2024.
2. Dynamic behavior and vulnerability assessment of nuclear power plant structures based on hazard scenarios, Funder: NRF, South Korea (BK21+), 2018-2022.
3. Rural community earthquake risk, Funder: KETEP & MOTIE, South Korea, 2018-2021.
4. Research on analysis of earthquake & fault characteristics and seismic performance improvement to respond against earthquake hazards, Funder: NRF, South Korea, 2018-2021.
5. Development of technologies to evaluate seismic safety of the dam, reservoir and bridge, MOIS, South Korea, 2018-2021.

ACADEMIC REFERENCES

1. Dr. Dookie Kim
Professor, Department of Civil and Environmental Engineering, Kongju National University, Republic of Korea
Address: Room#404-1, Department of Civil & Environmental Engineering, Kongju National University, 1223-24 Cheonan-daero, Seobuk-gu, Cheonan, Chungnam 31080, Republic of Korea.
Phone: +82-41-521-9315; E-mail: kim2kie@kongju.ac.kr

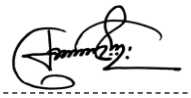
2. Dr. Dae Wook Park
Professor, Department of Civil and Environmental Engineering, Kunsan National University, Republic of Korea

Address: Room#6302, Engineering Building 4, Kunsan National University, 558 Daehak-ro, Gunsan-si, Jeollabuk-do 54150, Republic of Korea.
Phone: +82- 63-469-4876; E-mail: dpark@kunsan.ac.kr

3. **Dr. Md. Zahanggir Alam**
Professor, Department of Civil Engineering, Rajshahi University of Engineering and Technology, Bangladesh
Address: Civil Engineering Building, RUET, Rajshahi-6204, Bangladesh.
Phone: +880 171233-7388; E-mail: zahanggir@ce.ruet.ac.bd

DECLARATION

I am swearing of such way that all the above information and included documents are correct and true.



Dr. Md Motiur Rahman