



Mohammad Nazmul Islam

Associate Professor

*PhD, The University of Tokyo, Japan; M.Sc., National University of Singapore
B.Sc. Engg (Civil), Bangladesh University of Engineering and Technology (BUET)*

Dynamics of Structure, Fracture Mechanics, Plate Theories, Building Inspection and Retrofitting

Dr. Mohammad Nazmul Islam has built up his academic and research career on Structural Engineering since his undergraduate in 1998. His Master's study and research included computational mechanics of higher order plate theories. He finished all requirements for the M. Eng. degree within one year and conducted further research on deriving stability criteria for column buckling. His Ph.D. works dealt with Fracture Mechanics of Reinforced and Fiber Reinforced Concrete. He was one of the pioneers in the world to apply the Theory of Inverse Problems into fracture mechanical models of RC beams.

Dr. Nazmul's teaching expertise includes courses on Mechanics of Solids, Reinforced Concrete, and Structural Analysis and Design. He lectured on Mechanics of Materials in the Graduate School of the University of Tokyo. Dr. Nazmul served as Staff Consultants of the Asian Development Bank (ADB) and Snowy Mountain Engineering Corporation (SMEC). He is a fellow of IEB and a member of International Society for Structural Health Monitoring of Intelligent Infrastructure. Dr. Nazmul voluntarily works for Road Safety in Bangladesh.

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Nazmun Nahar

Associate Professor

*PhD, Purdue University, USA; M.Sc., Purdue University, USA
B.Sc. Engg. (Civil), Bangladesh University of Engineering and Technology (BUET); P. Eng. (Registered Professional Engineer), Canada*

Flood Mitigation and Floodplain Management, Assessment and Design of Hydraulic Structures, Integrated Watershed Management and Planning, Climate Change and Hydrology, Urban Storm Water Management.

Dr. Nazmun Nahar has joined the North South University (NSU) as an Associate Professor in 2013. Prior to her joining, she served as a member of the Co-ordination Committee formed to establish the Civil and Environmental Engineering Department at NSU. Dr. Nazmun is a Registered Professional Engineer (P.Eng.) in Canada. She has over fifteen years of experience in research, teaching and consulting in North America. Dr. Nazmun is an expert in the areas of Integrated Storm water Management Planning (ISMP), Floodplain analysis and management, Highway and Airport Drainage Design, sophisticated 1- and 2-dimensional hydrologic and hydraulic modeling and analysis, assessment of the use of Best Management Practices (BMP) for storm water control, and development of low impact (LID) storm water strategies. Dr. Nazmun is a Life Fellow of Institution of Engineers Bangladesh (IEB) and has been involved with other national and international professional organizations.

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Nadim Khandaker

Associate Professor

PhD, Pennsylvania State University, USA; M.Sc., University of Arkansas, USA

B.Sc., University of Massachusetts at Lowell, USA, P. Eng. (Registered Professional Engineer), Canada

Arsenic Mitigation and Safe Water Supply, Industrial Wastewater Treatment, Renewable Energy and Energy Efficiency, Engineering and Public Policy.

Dr. Nadim Khandaker is considers himself as an expert in translational research where he takes concepts derived in the bench to fruitful industrial application. He hold numerous US patents in the field of arsenic removal technology. He has designed built, commissioned, and made process improvements to numerous water and wastewater treatment plants in his more than twenty five years of engineering experience. He has worked in prestigious research, academic, and industrial organizations such as Sandia National Lab, USA, Wastewater Treatment Development Center of Environment Canada, Pennsylvania State University, University of Arizona, University of New Mexico, State University of New York, McGill and McMaster University. Nadim has also served as technical advisor to UNICEF, Canadian International Development Agency, Ontario Clean Water Agency. Dr. Khandaker is extensively published in both national and international journals with more than forty publications. He has worked on projects in numerous countries of the world including, Canada, USA, Mexico, India, Bangladesh, Korea, Vietnam, Cambodia and Nepal.

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Dr. Md. Jahidul Islam

Assistant Professor

PhD, National University of Singapore (NUS), Singapore

B.Sc. Engg. (Civil), Bangladesh University of Engineering and Technology (BUET)

Concrete, Materials, Numerical Simulation, Dynamic Analysis, Protective Structure Design

Dr. Md. Jahidul Islam has a PhD in structural engineering from the National University of Singapore (NUS). Before joining NSU, Jahid worked at Islamic University of Technology (IUT) and National University of Singapore (NUS). Jahid has a strong background in numerical analysis of structures. His PhD work was on numerical study of structural responses under high velocity impact. His primary research interest includes designing of smart and protective structures, eco-friendly lightweight concrete and column-slab joints subjected to dynamic loading. He has published his work in good number of peer reviewed international journals and presented his work in various conferences. Dr. Jahid is the member of Institute of Engineers (IEB), Bangladesh since 2005. He has also worked as consultant for various reputed organization, like the World Bank, Japan International Cooperation Agency (JICA), SNV Netherlands Development Organization, and Infrastructure Development Company Limited (IDCOL) on various infrastructure projects.

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S.M. Ashfaul Hoq

Lecturer

M.Sc., University of Texas at Arlington (UTA), USA

B.Sc. Engg. (Civil), Bangladesh University of Engineering and Technology (BUET)

Dynamic Analysis, Semi-rigid Connection, Innovative Framing System for Lateral Loading.

S. M. Ashfaul Hoq has received his undergraduate degree in Civil Engineering from Bangladesh University of Engineering and Technology (BUET) in June 2007. Later, Hoq enrolled as a graduate student at the University of Texas at Arlington in Fall 2008. There, he has been awarded the prestigious Graduate Deans Masters Fellowship from Fall 2008 to Spring 2010. In UTA, his research work was related to improvement of building performance under earthquake excitations. Hoq completed his Masters in Spring 2010 with major in structural engineering. Before joining NSU he also served as a faculty member at Ahsanullah University of Science and Technology (AUST) and Stamford University, Bangladesh. He has few publications in refereed journals and in the proceedings of international conferences.

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Nawrin Anwar

Lecturer

M.Sc., University of Western Ontario (UWO), Canada;

B.Sc. Engg. (Civil), Bangladesh University of Engineering and Technology (BUET)

Groundwater Flow and Contamination, Surface and Groundwater Interaction, Wastewater Qualities.

Nawrin Anwar joined the Department of Civil & Environmental Engineering of North South University (NSU) as a Lecturer in Fall 2013. She received her Bachelor's degree in Civil Engineering from Bangladesh University of Engineering and Technology (BUET) in October 2009. Later on, Ms. Anwar joined the University of Western Ontario (Ontario, Canada) as a graduate student to pursue her Masters in Civil & Environmental Engineering. She obtained the Western Engineering Scholarship along with the Graduate Research and Teaching Assistantship. During her graduate studies, she focused on groundwater & surface water interactions, and nutrient dynamics in the coastal aquifers. She completed her Masters in August 2012. Prior to her joining in NSU, Ms. Anwar served as a faculty member in the University of Asia Pacific (UAP). Ms. Anwar has publications in several international conferences including the conferences of ASCE, AGU, CERF, and GLBA.

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Faisal Shakib Ahmed

Lecturer

*M.Sc., in Geotechnical Engg., The University of Texas at Arlington, Arlington, Texas, USA
BS in Civil Engg., Bangladesh University of Engineering and Technology (BUET)*

Geotechnical Engineering, Slope stability, Geotextile.

Faisal Shakib Ahmed joined CEED as a Lecturer in Fall 2014. His graduate major was Geotechnical Engineering and undergrad major as Structural Engineering. Previously he was working as a Senior Lecturer in the Department of Civil Engineering, Stamford University Bangladesh from June 2009 to June 2014 as a full time faculty. During his stay in USA for masters, he worked for TxDOT (TEXAS DEPARTMENT OF TRANSPORTATION) as a Graduate Research Assistant to examine the effect of Recycled Plastic Pins (RPPs) in slope stability applications of major highways in TEXAS. He also worked for the City of Denton, TEXAS, as a Graduate Research Assistant. He later worked for Medway Consultancy Services (UK) Ltd. and was actively involved in inspection of Readymade Garments industries in Bangladesh as an Structure and Fire Safety Auditor.

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Sifat Kalam

Lecturer

*M.A.Sc. (Civil Engg), University of British Columbia (UBC), Vancouver, Canada;
B.Sc. (Civil Engg), Bangladesh University of Engineering and Technology (BUET)*

Water quality and treatment, Wastewater nutrients recovery, Pollution control and waste management.

Sifat Kalam completed M.A.Sc. in Civil Engineering from The University of British Columbia (UBC), Vancouver, Canada in May, 2015 with a major in Environmental Engineering. As a Graduate Research Assistant, Sifat was involved in removal and recovery of nutrients from wastewater in a pilot scale study at Annacis Wastewater Research Center, Metro Vancouver, Delta, BC, Canada. She has also worked as a Graduate Teaching Assistant at UBC. In recognition of her academic achievement, she had received Canadian Association on Water Quality Award and Faculty of Applied Science Graduate Award. Before going to Canada, Sifat worked as a faculty member at the University of Information Technology & Sciences (UITS) after receiving her Bachelor's degree in Civil Engineering from Bangladesh University of Engineering and Technology (BUET) in February 2011. Sifat had presented her research work at couple of international conferences.

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Brigadier General Habibur Rahman Kamal

NDC Course member, National Defence College, Mirpur and Ex-Dean, School of Engineering, MIST
M.Sc Engg. (Resource Planning & Mgt.) Naval Post Graduate School, USA, M.Sc Engg. (Structural Engg.) (BUET)
B.S Civil Engg. Chittagong University of Engineering and Technology (CUET)
Structural Engineering

Habibur Rahman Kamal is a commissioned officer of the Engineering Corps of Bangladesh Army. Apart from his high ranked command position in Army, he also has more than 20 years of combined teaching, research and corporate experiences in various fields of Civil Engineering. He served UN peace mission with the capacity of Chief Engineer (Operation) in East Timor. He also served as the Chairman of Khulna Development Authority (KDA). He was involved in design and construction of a number of roads and construction projects at home and abroad. He also conducted several research projects and presented the findings in conferences at home and abroad.

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Shoeb Reaz Alam

Assistant Professor

PhD, (Civil) Lamar University, Texas, USA; M.Sc., (Civil) Lamar University, Texas, USA
B.Sc., (Civil) Bangladesh University of Engineering and Technology (BUET)

Dr. Shoeb Reaz Alam is a BCS cadre (police) officer and presently working at the Estate and Development department of Bangladesh Police as Assistant Inspector General (AIG). Here he oversees country-wide civil infrastructure development works of Bangladesh Police. While staying in USA as a graduate student to conduct his Masters and PhD, his research interest was related to water quality management. He published a number of quality research papers at reputed international journals.

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Asif M. Zaman

Assistant Professor

PhD, University of Melbourne, Australia; M.Engg. (Environmental Engg.), Imperial College, London, UK

Water resources planning and management, climate change impact and adaptation analyses, decision support systems, development and applications of mathematical models

Dr. Asif M. Zaman has more than 15 years of international working experience in water related projects covering: water resources planning and management, irrigation and drainage modeling, river basin modeling and general hydrologic modeling, environmental impact assessments and water sector feasibility studies. Dr. Zaman also regularly provides specialized training to young professionals working in public and private sectors. He has more than 20 technical and scientific publications, book chapters and a co-authored book on Climate Change and Urban Flooding in the Greater Dhaka Area. His research interests include integrated water resources management, climate change adaptation, and improving communication between technical and non-technical disciplines.

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BS in Civil and Environmental Engineering (Total= 149 Credits)

- ❖ **University Core (40 credits)**
- ❖ **Orientation (non credit)**
- o CEE 100 Introduction to Civil and Environmental Engineering
- o MAT 116 Pre-calculus
- o ENG 102 Introduction to Composition
- ❖ **Basic & Applied Sciences (25 credits)**
- o ENV 107 Environmental Science - 3 credits
- o PHY 107 General Physics I - 4 credits
- o PHY 108 General Physics II - 4 credits
- o CHE 120 Inorganic chemistry - 4 credits
- o ENV 209 Environmental Chemistry - 4 credits
- o CEE 260 Hydrology - 3 credits
- o ENV 311 Geology and Geomorphology - 3 credits
- ❖ **Mathematics (15 credits)**
- o MAT 120 Calculus & Analytical Geometry I - 3 credits
- o MAT 130 Calculus & Analytical Geometry II - 3 credits
- o MAT 361 Probability and Statistics - 3 credits
- o MAT 125 Linear and vector algebra for Engineers - 3 credits
- o MAT 350 Engineering Mathematics - 3 credits
- ❖ **Engineering Courses (82 credits)**
- ❖ **Fundamental Engineering Tools (33 credits)**
- o CEE 110 Computer Aided drawing (CAD) for Engineers - 3 credits
- o CEE 215 Numerical Analysis & Computer Programming - 3 credits
- o CEE 210 Engineering Mechanics - 3 credits
- o CEE 211 Fluid Mechanics - 4 credits
- o CEE 212 Solid Mechanics - 4 credits
- o CEE 213 Surveying & Introduction to GIS - 4 credits
- o CEE 214 Engineering Materials - 3 credits
- o CEE 310 Quantity Survey and Cost Estimates - 3 credits
- o CEE 415 Socio-economic Aspects of Development Projects - 3 credits
- o ENV 455 Research Methodology - 3 credits
- ❖ **Engineering Core Courses (49 credits)**
- ❖ **Structural engineering (14 credits)**
- o CEE 330 Structural Analysis and Design-I - 3 credits
- o CEE 331 Structural Analysis and Design -II - 4 credits
- o CEE 335 Reinforced Concrete Design, I - 3 credits
- o CEE 430 Reinforced Concrete Design, II - 4 credits
- ❖ **Geotechnical Engineering (7 Credits)**
- o CEE 240 Intro. To Soil Mechanics and Foundation Engineering - 4 credits
- o CEE 340 Advance Foundation Engineering - 3 credits
- ❖ **Transport engineering (7 credits)**
- o CEE 250 Introduction to Transportation Engineering - 4 credits
- o CEE 350 Traffic Analysis and Design - 3 credits
- ❖ **Water resources engineering (7 credits)**
- o CEE 360 Open-Channel Hydraulics - 4 credits
- o CEE 460 Groundwater Hydraulics - 3 credits
- ❖ **Environmental engineering (14 credits)**
- o CEE 370 Water Supply and Treatment - 4 credits
- o CEE 373 Sanitation and Wastewater Engineering - 4 credits
- o ENV 373 Environmental Impact Assessment - 3 credits
- o CEE 470 Solid and Hazardous Waste Engineering - 3 credits
- ❖ **GED 27 credits, 15 credits from core, 12 credits from Arts and Social Science (27 Credits)**
- ❖ **Arts and Social Science (12 credits)**
- ❖ **Mandatory (6 credits)**
- o ENG 103 Intermediate Composition - 3 credits
- o ENG 105 Advance Composition - 3 credits
- ❖ **Any two liberal arts from NSU offerings : (6 credits)**
- o ECO 101, ECO 104, SOC 101, PSY 210, POL 210, LAW 200, MGT 210, PHI 315 etc. - 6 credits
- ❖ **Elective courses (any four) (12 credits)**
- o CEE 410 Construction Engineering - 3 credits
- o CEE 431 Introduction to Structural Dynamics - 3 credits
- o CEE 433 Finite Element Methods - 3 credits
- o CEE 435 Prestressed Concrete - 3 credits
- o CEE 437 Behavior and Design of Metal Structures - 3 credits
- o CEE 439 Earthquake-resistant Design - 3 credits
- o CEE 465 River Engineering - 3 credits
- o CEE 467 Irrigation and Drainage Engineering - 3 credits
- o CEE 473 Coastal and Estuarine Analysis - 3 credits
- o CEE 475 Environmental Modelling - 3 credits
- o CEE 477 Ecological Engineering - 3 credits
- o CEE 479 Air Quality Engineering - 3 credits
- o ENV 309 Environmental Toxicology - 3 credits
- o ENV 408 Environmental Pollution Control - 3 credits
- ❖ **Project (3 credits)**
- o CEE 499 Engineering Project - 3 credits
- ❖ **Co-op/Internship**
- o CEE 498 - o (non-credit)