



North South University

Department of Civil and Environmental Engineering (CEED)

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**NORTH SOUTH
UNIVERSITY**

Department of Civil and Environmental Engineering
(CEED)



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Overview

North South University (NSU) is the first private university in Bangladesh, established in 1992. All along its history, NSU has been considered as the best private university in Bangladesh and probably the only university in the region which strictly adheres to North American academic standards. All faculty members of this university are graduates of reputed universities worldwide, especially from USA, Canada, UK, Japan and Australia. At present there are sixteen academic departments there, under four major schools as; Business, Engineering and Physical Sciences, Humanities and Social Sciences, and Health and Life Sciences. The *Civil and Environmental Engineering Department (CEED)* belongs to the School of Engineering and Physical Sciences.

Recently, NSU has taken initiative to strengthen its engineering school, making it as a full-fledged school with all basic engineering programs. As part of it, civil and environmental engineering department was opened in 2013. In fact, back in 2003 a committee convened by honorable BoT member Benajir Ahmed proposed CEED, which later got approval of UGC in 2004 to launch B S in Civil and Environmental Engineering degree. Since then, there was always a demand from prospective students to study in the discipline. NSU, however, took time and the real progress towards recruitment of students took a stride after the establishment of its state-of-the-art permanent campus at Bashundhara, where laboratory facilities and other infrastructures were possible to be built. Adequate time was taken here to ensure that a quality civil engineering program is designed with all the required facilities.

Civil engineering is considered as the oldest and the most classical form of engineering education, covering diverse fields. In fact, the history of civil engineering dates back to the history of civilization, and the earliest practice of civil engineering may had commenced between 4000 to 2000 BC in Mesopotamia and Egypt when humans started to abandon a nomadic existence, creating a need for the construction of shelter. In the academic arena, the term *Civil Engineering* was introduced to incorporate all engineering works for civilians as opposed to *Military Engineering*. Later, civil engineering was further divided into all the engineering disciplines that we see nowadays. It is thus considered as the mother of all engineering disciplines.

The main objective of the Department of Civil and Environmental Engineering (CEED) at NSU is to provide and equip students with the highest level of technical competencies, social responsibility, leadership and lifelong learning skills for successful careers in civil engineering.



Why 'Civil and Environmental Engineering'?

Civil and Environmental Engineering is the modern version of classical Civil Engineering degree. In fact, Civil engineering comprises five basic blocks namely Structure, Geotechnical, Transportation, Water resources and Environmental engineering. With the growing concern over environment and development issues in the present world, water and environmental engineering divisions of civil engineering discipline have been strengthened worldwide, changing its name to *Civil and Environmental Engineering*. In USA, almost hundred percent universities have changed the name of *Civil Engineering* department to *Civil and Environmental Engineering*. The trend started in late 80s and continued all over the world. Some of the examples here can be mentioned as Stanford University (USA), Massachusetts Institute of Technology (MIT, USA), University of California, Berkely (USA), Carnegie Mellon University (USA), Imperial College (UK), University of Waterloo (Canada), University of New South Wales (Australia), Tokyo Institute of Technology (Japan) and National University of Singapore, etc.

NSU, as it nurtures the most up-to-date and advanced thoughts of the present world, and mostly follows US style in its curriculum design, it is thus decided to name the department as Civil and Environmental Engineering. In Bangladesh, most recently, the newly opened Civil Engineering departments are also named as Civil and Environmental Engineering, as for example, IUT, Gazipur and SUST, Sylhet.



Civil and Environmental Engineering: Bangladesh's Perspective



As a developing country, Bangladesh is expected to take up huge infrastructure projects in this century. Along with the boom in the real estate sector, large span bridges, elevated express ways, flyovers, metro-rail, subway, bus rapid transits, airports, expansion of railway service, deep-sea port, barrage, surface water treatment plants, etc are some of the examples of upcoming mega structures. Being a disaster prone country and highly vulnerable to climate change and sea level rise, infrastructure development to combat them is required in the near future too. In addition, there is a growing job market for civil engineers in abroad as well including Middle-east, Singapore, North America, Australia and even Europe.

In the country, till now the maximum number of engineering job positions in the public sector are for civil engineering graduates. Civil engineers constitute the highest number of civil service (BCS) cadres. The government organizations and departments which are predominately run by civil engineering graduates include Public Works Department (PWD), Roads and Highways Department (RHD), Department of Public Health Engineering (DPHE), Bangladesh Railway, Local Government Engineering Department (LGED), Water Development Board (WDB), Military Engineering Service (MES), Army Engineering Core, WASA, City authorities like RAJUK, Civil Aviation Authority, Port Authorities, BIWTA, BADC, Municipal Corporations, etc. Apart from this, a large number of reasearch organizations, private consulting and construction firms, NGOs and international development agencies recruit civil engineers as for example, WARPO (Water Resources Planning Organization) , RRI (River Research Institute), IWM (Institute of Water Modeling), CEGIS, World Bank, ADB, JICA, UNDP, DFID, USAID, CIDA, DANIDA, GIZ, AUSAID, SIDA, IDB, CARE, etc.



Strategic Mission & Vision

The Department of Civil and Environmental Engineering (CEED) at NSU aspires to be a leader in providing engineering solutions to develop infrastructure in a sustainable manner, i.e in harmony with nature.

Consistent with the mission of North South University, the mission of the department is three-fold : (1) to educate future engineers for professional practices with adequate technical competency (2) to contribute to the global technological advancement through effective research; and (3) to serve the nation by extending technical assistance into development projects through mutually beneficial partnerships. The long term vision of the department is to become a centre of excellence in providing knowledge and technical support in sustainable infrastructure development compatible with the national and global context.

With the above mentioned mission and vision declared, the department aims to be recognized as one of the outstanding academic programs among the peers nationally and internationally in terms of forward-looking curricula which covers advance level of technological skills as well as the concept of sustainability, outstanding teaching environment, and high quality educational and research facilities.



North South University



Department of Civil and Environmental Engineering

Faculty and Advisory Council

One of the major strengths of the department is its highly qualified faculty members, having degree from internationally reputed universities, mostly from North America. Apart this, eminent educationists and professional engineers from home and abroad in the field of civil and environmental engineering are involved with the department with various capacities as the member of the Coordination Committee & Advisory Council. Academics from abroad also teaches in the department as visiting faculty members. CEED can hire part-time faculty members from other institutes as well, specifically from BUET.



Advisory Council

- **Prof. Dr. Shamim Z Basunia**, *President, The Institution of Engineers, Bangladesh (IEB), Dhaka, Bangladesh (Ex-Professor, Chair and Dean, Department of Civil Engineering, BUET)*
- **Prof. Dr. M. Feroze Ahmed**, *Vice Chancellor, Stamford University, Ex-Professor, Department of Civil Engineering, BUET (Ex-Chair and Dean; Ex-Director, ITN-BUET)*
- **Prof. Dr. Md. Mazharul Hoque**, *Professor, Department of Civil Engineering, BUET (Ex-Chair of the department; Ex-Director, Accident Research Center)*
- **Prof. Dr. Md. Mujibur Rahman**, *Professor, Department of Civil Engineering, BUET (Department Chair, Ex-Director, ITN-BUET)*
- **Engr. Md. Kabir Ahmed Bhuiyan**, *Chief Engineer, Public Works Department (PWD), Bangladesh Government*
- **Engr. Faizur Rahman Khan**, *Managing Director, Building Technologies and Ideas Ltd. (BTI)*
- **Prof. Dr. Sarwar Jahan Md. Yasin**, *Professor, Department of Civil Engineering, BUET*
- **Prof. Dr. Md. Mafizur Rahman**, *Professor, Department of Civil Engineering, BUET (Ex-Director, ITN-BUET)*
- **Prof. Dr. M Jahir Bin Alam**, *Professor, Department of Civil and Environmental Engineering, SUST, Sylhet*
- **Prof. Dr. S M Atiqul Islam**, *Professor, Department of Civil Engineering, DUET, Gazipur, Dhaka*
- **Dr. Mujibur Rahman**, *Senior Lecturer, Department of Civil Engineering, Brunel University, London, Uk*





Md. Sirajul Islam

Associate Professor & Chair

PhD, The University of Tokyo, Japan;

M.Sc., The National University of Singapore; B.Sc. Engg. (Civil), Bangladesh University of Engineering and Technology (BUET), IPCC Expert Reviewer and former UNFCCC Fellow

Water Resources, Climate Change, Environmental Engineering, Industrial Environmental Compliances.

Dr. Md. Sirajul Islam joined NSU back in 2005 and held several important positions including Chair, Department of Environmental Science & Management (DESM) and Faculty Advisor of Earth Club. Dr. Islam has extensive experiences in the field of water resources and environment with further concentration in climate change, urban environmental management, industrial compliance and building safety issues. He got training on ISO 14000, industrial environmental management and fire safety. Dr. Islam started his career as a researcher of the Institute of Water and Flood Management (IWFM), BUET in 1995. He then joined at the Department of Civil and Environmental Engineering, Shajalal University of Science and Technology (SUST), Sylhet in 1997. After his PhD, he conducted JST Postdoctoral Fellowship on Hydrology and Water resources at Oki Laboratory, IIS, The University of Tokyo, Japan in 2003-2005. Apart from academic assignments, he served for a number of international organizations and UN bodies as UNDP, DFID, ADB, UNFCCC and IPCC as well. In 2010, he served as Research Fellow at the secretariat of the United Nations Framework Convention on Climate Change (UNFCCC), Bonn, Germany on the topic Technology for Adaptation. Dr. Islam is associated with Intergovernmental Panel on Climate Change (IPCC) as an Expert Reviewer for a number of reports. He is extensively involved with the professional bodies in his field and presently serving as General Secretary, Bangladesh Society for Environmental Scientists (BSES). He published widely in different international and national peer reviewed journals, book chapters and conference proceedings.

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Javed Bari

Associate Professor

*PhD & M.Sc, Arizona State University, Tempe, Arizona, USA;
B.Sc. Engg. (Civil), Bangladesh University of Engineering and Technology (BUET),
PE (Registered Professional Engineer), USA*

Transportation Engineering & Planning, Pavement Design, Construction Materials, Construction Management, Project planning and Management, Highway Safety.

Dr. Javed Bari joined NSU in 2013 as an Associate Professor. He has around than twenty years' combined teaching, research and corporate experience in various fields of Civil Engineering. He obtained his B.Sc. in Civil Engineering from BUET in 1993 with a major in Structural Engineering. Later he obtained M.S. and Ph.D. in Civil Engineering from Arizona State University, Tempe, Arizona, USA with a specialization in Transportation Engineering. He is a registered Professional Engineer (PE) in USA with an active license. He is also a Life fellow of IEB. He is considered a USA South-Western specialist of transportation and materials. Dr. Javed Bari was one of the key researchers who developed the globally known new AASHTO Mechanistic-Empirical Pavement Design Guide. He taught Civil Engineering courses at Arizona State University for a long time. Dr. Bari also worked in the Arizona Department of Transportation (ADOT) as a team leader and Sr. Pavement Design Engineer from 2005 to 2010. There he managed numerous research projects as well as highway construction projects totaling more than 800 million dollars. In Bangladesh, Dr. Bari worked in all three major Civil Engineering Govt. Departments, e.g. RHD, PWD and LGED, between 1994 and 1999. After returning from USA in 2011, he briefly worked in the IUBAT University at Dhaka as a Professor of Civil Engineering and also the Director of South Asian Disaster Management Center (SADMC). Dr. Bari attended numerous professional training sessions such as EIT practitioner's training at EGIS-II, Govt. cadre foundation training at PATC, BAETE Accreditation training, ADOT strategic management training, etc. Dr. Bari has numerous publications in many international peer reviewed journals and conference proceedings such as the journals and proceedings of ASCE, TRB, AAPT, ITE, ASC, etc.

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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 build up his academic and research career on Structural Engineering since his undergraduate in 1998. His Master's study and research included Finite Element Methods and Plate Structures, where he worked on 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. He also conducted various experiments on RC beams into the Structural Engineering laboratory. He has numerous research articles in peer reviewed top ranked international journals and also presented papers in various conferences.

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. He also has lecturing experiences in Singapore, Japan, Taiwan, Malaysia and New Zealand. He worked as the Head of the Department of Civil Engineering, Presidency University, Dhaka for eight years (2005-2013) while he developed huge skills on lecturing and academic administration and fostered his research career on Structural Engineering. He joined CEED at NSU in 2013.

Dr. Nazmul served as Staff Consultants in two projects of the Asian Development Bank (ADB). He also served Snowy Mountain Engineering Corporation (SMEC) as consultant on various infrastructure projects. Dr. Nazmul 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. After graduating from Bangladesh University of Engineering and Technology (BUET) in 1995, Dr. Nazmun joined Purdue University, a top ranking engineering university in USA as a Graduate research student to pursue PhD in Civil and Environmental Engineering. She focused on hillslope hydrologic processes and examined the impact of 'run-on' on surface runoff, sediment transport and contaminant transport. Her findings were published in internationally peer reviewed journals, book chapter and conference proceedings. With a successful career in industry, Dr. Nazmun returned to academia and joined the British Columbia Institute of Technology (BCIT), one of the oldest engineering institutes in Canada. At BCIT, she taught water resources and environmental engineering courses and served as a supervisor for final year 'Capstone' projects. In the year 2012, Dr. Nazmun came back to Bangladesh and started teaching at the University of Asia Pacific prior to joining NSU. Besides teaching, Dr. Nazmun also supervised several final year thesis. Dr. Nazmun is a member of American Society of Civil Engineers (ASCE), 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 considers himself as an expert in translational research where he takes concepts derived in the bench to fruitful industrial application. Nadim holds numerous US patents in the field of arsenic removal technology. Nadim to his credit has designed, built, commissioned, and made process improvements to numerous water and wastewater treatment plants in his more than twenty years of experience in the field of environmental engineering. 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 United Nations Children's Fund (UNICEF), Canadian International Development Agency, Ontario Clean Water Agency. Nadim is extensively published in both national and international journals with more than forty publications. Nadim has been highly sighted by national and international media in his area of expertise. Of note is his pioneering work in arsenic mitigation and safe water supply with UNICEF in the early 2000. Nadim was the lead in formulating an integrated arsenic mitigation project in the worst affected regions of Bangladesh where all the wells were tested, marked, patients identified, and alternate safe water options provided. Nadim has worked on projects in numerous countries of the world including, Canada, USA, Mexico, India, Bangladesh, Nepal, Pakistan, Europe, Cambodia. Nadim is looking for a few good men and women in Bangladesh to save Bangladesh from the impending environmental disaster.

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Nehreen Majed

Assistant Professor

*PhD, Northeastern University, Boston, USA;
M.Sc. and B.Sc. Engg. (Civil), Bangladesh University of Engineering and Technology (BUET)*

Water Quality Assessment and Control; Water and Wastewater Treatment; Environment and Microbial Ecology.

Dr. Nehreen Majed joined as an Assistant Professor at the Department of Environmental Science and Management at North South University in Dhaka, Bangladesh in Spring 2012. Afterwards she served as a member in the coordination committee for the establishment of the Department of Civil and Environmental Engineering prior to opening of the department and got transferred to the same in Fall 2013. She has completed her BSc (Civil Engineering) in 2003 and MSc (Environmental Engineering) in 2005 from Bangladesh University of Engineering and Technology (BUET). Then she completed her PhD degree from Northeastern University at Boston, Massachusetts in United States of America specializing in Environmental Engineering in 2011. She held research positions at institute of appropriate technology (IAT) and International Training Network center (ITN) at Bangladesh University of Engineering and Technology (BUET) before pursuing PhD program abroad. She worked as a graduate teaching assistant for the department of Civil and Environmental Engineering of Northeastern University while performing PhD. She has experiences in teaching laboratory courses and supervising undergraduate summer interns in the laboratory based methods. Her fields of expertise encompass water quality assessment and control, water and wastewater treatment, biological nutrient removal and microbial ecology. Apart from looking at phosphorus analyzing techniques and advanced lab-scale configurations for reaching low effluent phosphorus levels, her PhD research introduced a novel technique to evaluate cellular level distribution of storage polymers in the polyphosphate accumulating organisms that are responsible and relevant in enhanced biological phosphorus removal technique. Her novel findings paved the way for number of publications in internationally acclaimed peer-reviewed journals like Environmental Science and Technology, Current Opinions in Biotechnology, Water Research, Water Science and Technology and also in several international conference proceedings.

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S.M. Ashfaquul 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. Ashfaquul 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 has 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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Visiting Faculty



Farhad Reza

Professor

*PhD, Clarkson University, Postdam, NY, USA;
M.Sc., Clarkson University, Potsdam, NY, USA; B.Sc., University of Iowa, Iowa City, Iowa, USA
P E (Registered Professional Engineer), USA*

Structural Health Monitoring, Concrete Material Science, Sustainable Infrastructure.

Dr. Farhad Reza is currently a Professor of Civil Engineering at Minnesota State University, Mankato where he has been since 2009. Prior to that, he taught at Ohio Northern University for eight years. Dr. Reza earned his Ph.D. in Civil Engineering in 2001 and his M.E. in Civil Engineering in 1996 at Clarkson University, and his BSCE from University of Iowa in 1995. He is a registered Professional Engineer in Ohio. Dr. Reza's industrial experience includes working with Washington Group International, Cutting Edge Group, and several private consulting jobs. His teaching interests include structural analysis and design, and engineering mechanics. Dr. Reza's research interests include structural health monitoring, nondestructive evaluation, and concrete material science. Dr. Reza taught Spring 2014 semester at CEED. He will continue teaching CEED at regular intervals.

Part-time Faculty



Shoeb Reaz Alam

Assistant Professor

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

Water Quality Modeling, Ecological Engineering, Project Management

Dr. Shoeb Reaz Alam received his Bachelor degree in Civil Engineering from the Bangladesh University of Engineering and Technology (BUET) in January 1994. Later on, Mr. Alam joined Lamar University, Beaumont, Texas, USA and obtained his Masters and PhD in Civil & Environmental Engineering. Mr. Alam has publications in peer reviewed journals and international conferences. His research interest includes global climate change, modeling of lake environment, simulation of climate warming effects in lake fishes, etc. He 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.

Curriculum and Accreditation

The academic programs under CEED will intrinsically meet and hopefully exceed each ABET (Accreditation Board for Engineering and Technology), USA general criterion, simultaneously satisfying each BAETE (Board of Accreditation of Engineering and Technical Education), Bangladesh program criterion. Thus the department will assign priority to course offerings, faculty selection and course planning in away, so that accreditation standards are properly met. The program will demonstrate proficiency in all branches of civil engineering: structural, environmental, geotechnical, transportation, and water resources.

The university is in the process to be accredited by the BAETE, Bangladesh and ABET, USA. ABET accreditation provides an assurance that the students are receiving a quality engineering education. Since many employers worldwide prefer to hire graduates from ABET accredited institutions, this will make it easier for our graduates to enter the global workforce.

Course Content

Total credit hours: 149 (+ 6 credit equivalent non-credit courses) , 4 years program.

The department is in process of major revision of its curriculum following US style.

The course content covers all the requirements of five major disciplines of civil engineering as Structure, Geotechnical, Transportation, Water Resources and Environmental Engineering. Following US style, it includes a capstone project.

CEED is also planning to open Masters in Construction Management and Masters in Water Resource & Environmental Engineering



Resources

- The University has already Environmental Science and Management, Electrical and Computer Engineering, Life Science and Architecture departments which utilize a large number of basic laboratories such as Computer Aided Drawing (AutoCAD), Environmental and Water Quality laboratory, Computing facilities, Physics, Chemistry and Biology laboratories, Geographic Information System (GIS) and Environmental Modeling laboratory.
- Additional new laboratories are in progress, which will be explicitly for Civil Engineering students. NSU has allocated necessary resources to establish international standard laboratory facilities with most current, sophisticated, and best quality instruments. The laboratories include Hydraulics laboratory, Structural Mechanics and Concrete laboratory, Materials and Transportation laboratory, Surveying and Geotechnical laboratory. Computer Aided Drawing (AutoCAD), Surveying and Concrete laboratories are already established.
- Opportunity for credit transfer to reputed universities anywhere in the world. Many students from North South University are presently studying abroad either after completion of their undergraduate program or transferring credit during study period.



North South University



Department of Civil and Environmental Engineering



- CEED recognizes that a strong connection between the Civil Engineering Industry and academia not only contributes to knowledge sharing, but also opens up potential opportunities for the graduating students. Thus, CEED has initiated the process to build connections with industries and Memorandum of Understanding (MoU) will be signed upon approval by both parties.
- Regular field trips and educational excursions to the areas of civil and environmental engineering, either as a part of departmental course curriculum or as trips organized by different clubs that emphasize learning through practical experiences.
- Seminars, workshops, round table discussions are organized to exchange ideas and knowledge as well as to enhance student's communication ability.
- Recreational facilities with indoor play zone and gymnasium.
- Opportunities for participating in international seminars, conferences and workshops.



Admission

Usual dates for Admission Tests for three semesters are **Spring : end of November, Summer : end of March and Fall: end of July**. Presently students are being enrolled in the B S in Civil and Environmental Engineering program. Students who prefer Civil & Environmental Engineering as first choice in the application form will be given priority. Please visit NSU website for details.

Admission Criteria

The minimum qualifications for admission into these programs are:

1. Academic Qualifications:
 - a) Total GPA = 7.0; a minimum GPA of 3.0 in both SSC and HSC exams.
 - b) GCE O-level and A-level: O-level in five subjects with Average Grade Point of 2.5 or above and A-level in two subjects with Average Grade Point of 2.0 and above; in the scale of A=5, B=4, C=3, D=2 & E=1. (one E is acceptable)
 - c) A US High School Diploma or equivalent. Requirements may be changed anytime if there is a change in admission policy.
2. Acceptable scores in NSU's admission test.
3. Admission test will be waived for those who got a minimum score of 1200 in SAT (Math+ Critical Reading) and 550 (CBT 213/IBT 79) in TOEFL or 5.5 in IELTS.
4. HSC/A-level (appeared) candidates may sit for the admission test on the basis of an undertaking that they will not be admitted unless they pass the HSC/A level exams with minimum GPA requirement which will be mentioned in the Admission Offer Letter. A-level appeared student must submit their Statement of Entry.

Foreign Students

Special provision of admission for foreign students either based on admission test or based on their school results. Foreign students should contact Registrar office or CEED office first before planning for admission.

Credit Transfer

Civil Engineering / other discipline students studying at other reputed public or private universities in Bangladesh or elsewhere in the world can transfer their credit to NSU accordingly as per NSU rule. NSU degrees and courses are also accredited worldwide. CEED is also in process of offering 2+2 joint degree with few foreign universities in USA and UK.



Financial Aid

Financial assistance from 25% to 100% of tuition fee waiver available in the following categories:

- Based on previous academic attainment and Admission Test result (Merit based Scholarship).
- Based on high academic attainment at NSU (Merit based tuition waiver).
- Based on financial NEED of a student (Waiver on Humanitarian grounds).
- Based on financial need & merit (Merit-Need based waiver).
- Based on two or more siblings studying together at NSU (Waiver for Siblings).

Freedom Fighter's privilege: Children of freedom fighters after admission through due process will get 100% tuition fee waiver, i.e. can study at NSU free of cost.

Student organizations

- To support students with co-curricular and extra-curricular activities, NSU strongly encourages involvement of students with twenty different students clubs. Every department has one club related to its specialized field. Other than this, there are generalized club as Debate club, Photography club, Drama club, Social service club, etc. Civil and Environmental Engineering club (CE2C) is the club dedicated for CEED students. Students can also join one other club of his interest.



Dr. Fazlur Rahman Khan
(3 April 1929 – 27 March 1982)
Born in Dhaka, Bangladesh



Legendary Bangladeshi-American civil engineer who designed Sears Tower (Willis Tower), the then tallest building in the world. His concept of Tubular Structure was a revolution in skyscrapers building so that he is regarded as the Father of Tall Building Design and Einstein of Structural Engineering. His monuments are there in USA and recognition in different forms as road name, university chair and, award, etc. CEED along with entire Bangladeshi nation is proud of this great civil engineer of the history.

