Department of Civil Engineering

Vision

The vision of the Department is to become a source of engineering solutions to sustainable infrastructure development through excellence in creative education and research to meet the challenges of 21st century.

Mission

We strive to be an internationally renowned Civil Engineering Department in education, research, innovation, publication and teaching that will best serve the society.

The specific missions of the civil engineering department are to:

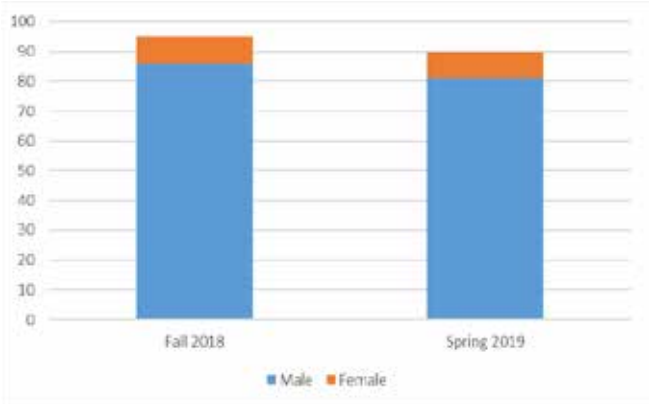
- Uphold well qualified and highly motivated faculty members,
- Maintain laboratory facilities equipped with modern instruments for teaching and research to enhance research KPI (secure research fund, publish quality research articles, research product) of the department by conducting quality research,
- Offer up-dated curriculum through continuous reviewing of the program based on the recommendations of stakeholders and benchmarking of internationally recognized programs,
- Implement Outcome Based Education system for successful continuation of accreditation from national and international accreditation authorities,
- Provide opportunities for co-curricular activities for learning social skills and responsibilities,
- Cultivate collaboration and interaction with local industry and international scientific community, and
- Conduct forward-looking inter and *multi-disciplinary research to find solutions to sustainable infrastructural development.*

Academic Programs

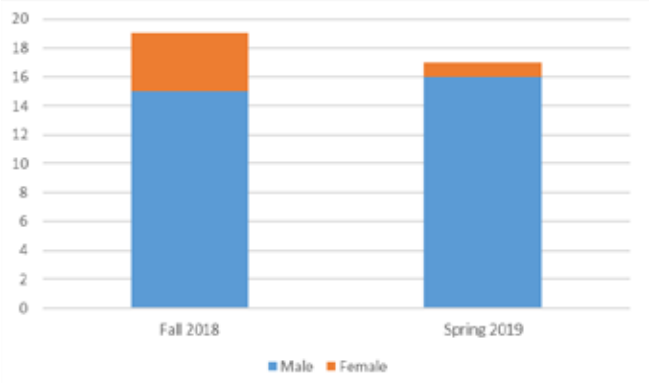
The Department started offering the undergraduate program in Civil Engineering in 1997 and later on extended to add the graduate program in 2009. Currently the department offers both undergraduate and graduate programs for B.Sc. and M.Sc. degrees in Civil Engineering. Following a bi-semester system, it requires a minimum of 8 semesters in 4 years to complete B.Sc. and a minimum 4 semesters in 2 years to complete M.Sc. in Civil Engineering.

In-take Capacity and Admission

Over time, having grown in capacity, the department admits 180 students in the undergraduate and 20 students in the graduate programs in a bi-semester academic year - Fall and Spring. The female interest for a career in civil engineering has historically been low. Encouragingly, the interest has been in the increase - the admission of female students has increased from 2 students per year to as high as 16 students per year.

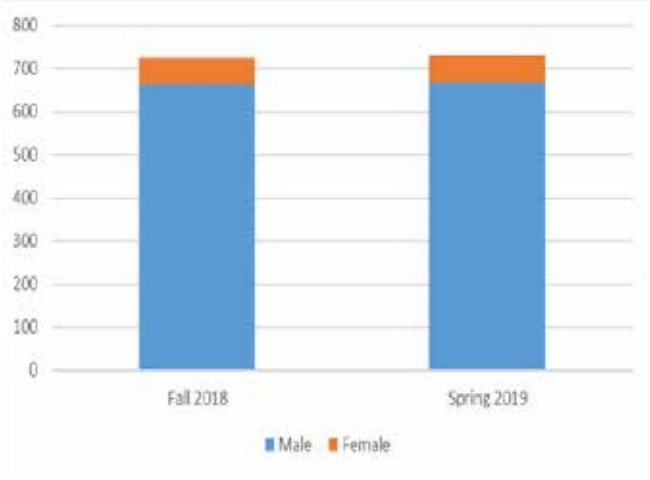


Total Number of Admitted Students in UG

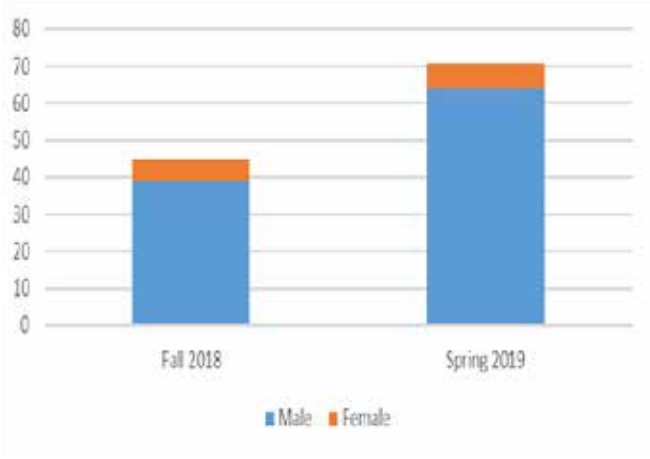


Total Number of Admitted Students in PG

The admission process is highly competitive; the students are required to appear for a written test, passing of which necessitates them to face an oral interview conducted by the senior faculty members of the Department.



Total Number of Enrolled Students in UG

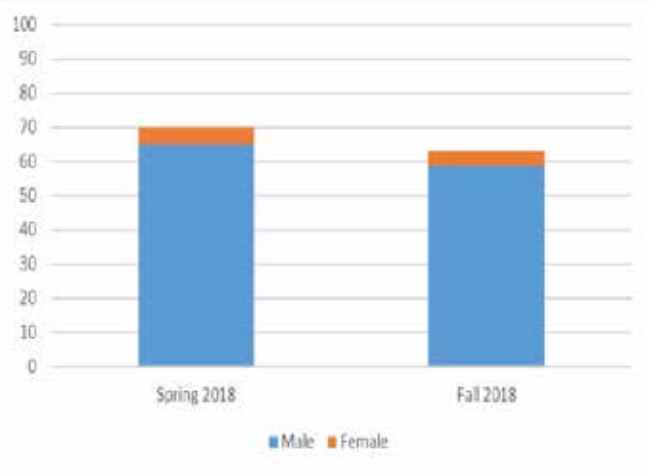


Total Number of Enrolled Students in PG

The average GPA of admitted students in undergraduate program is usually above 4.5 (on a scale of 5) both in SSC and HSC. The Department maintains a full capacity admission; in each academic session – Fall and Spring. It admits only 90 students so that 25 full time and 3 part-time faculty members are able to contribute their best possible attention, both in the classes and in the laboratories, to each one of the student admitted. The Department attempts to ensure optimum utilization of the teaching and research potential of its faculty members for the benefit of the students.

In Fall 2018, the total number of students in the undergraduate program was 727 and in the postgraduate program 58. In Spring 2019, the

corresponding numbers were 731 in undergraduate and 71 in postgraduate.



Total #Students Graduating with B.Sc. Degree

Faculty Members, Facilities and Resources

The Department takes pride in its outstanding and exceptionally qualified faculty: 13 out of 28 faculty members hold PhDs from well-reputed foreign universities in USA, Canada, Australia, Europe and Japan. The faculty specialties available in the Department are in the area of: Structural, Geotechnical, Transportation, Environmental and Water Resources Engineering. The specialized courses offered are in keeping with the demands and expectations of the industry and of civil engineering students. The current teacher–student ratio of the department is quite favorable for teaching and learning.

Faculty Members

Dr M. Shamim Z. Bosunia
Professor Emeritus
Ph.D., University of Strathclyde, UK

Dr Farzana Rahman
Professor & Head
Ph. D., Saitama University, Japan, 2009

Dr M. R. Kabir
Professor & Dean
Ph.D., Catholic University of Leuven, Belgium, 1993

Dr Md. Mujibur Rahman
Professor
Ph.D., University of Adelaide, Australia, 1988

Dr Iftekhar Anam
Professor
Ph.D., Texas A&M University, USA, 2000

Dr Muhammad Mizanur Rahaman
Professor
D.Sc., Helsinki University of Technology, 2009

Dr Tanveer Ferdous Saeed
Professor
Ph. D., Monash University, Australia, 2011

Emtazul Haque
Associate Professor
M. Sc. Engineering, University of Oklahoma, USA, 1997

Dr Sarah T. Noor Kakoli
Associate Professor
Ph.D., Concordia University, Canada, 2011

Dr Nehreen Majed
Associate Professor
Ph. D., Northeastern University, Boston, MA, USA, 2011

Dr Md. Ashraful Alam
Associate Professor
Ph. D., University of Malaya, Malaysia, 2010

Syed Jamal Uddin Ahmed
Assistant Professor
M. Sc., The University of Dundee, Scotland, UK, 2010

Dr Md. Mahmudul Hasan
Assistant Professor
Ph.D., Ritsumeikan University, Japan, 2014

Dr Sharmin Nasrin
Assistant Professor
Ph.D., Queensland University of Technology, Australia, 2015

Rumman M. Chowdhury
Assistant Professor
M. Sc., University of Stuttgart, Germany, 2014

Mansura Sharmin
Assistant Professor
M. Engg., University of Toronto, Canada, 2013

Dr Md. Jihad Miah
Assistant Professor
Ph.D., University of Pau and Pays de l'Adour, France, 2017

Nandita Saha
Lecturer
Master of Engineering, Osaka University, Japan, 2019

Md. Nazmul Alam
Lecturer
M. Sc., BUET, 2018

Mahfuza Tabassum
Lecturer
B. Sc. in Engineering (Civil), UAP, 2016

Musawer Ahmad Saqif
Lecturer
B. Sc. in Engineering (Civil), BUET, 2017

Israt Jahan
Lecturer
B. Sc. in Engineering (Civil), BUET, 2017

Fatima Afifah
Lecturer
M. Sc., BUET, 2019

Mohammad Sabbir Rahman
Lecturer
M. Sc., Kunsan National University, Korea, 2016

Shameer Saleh
Lecturer
Master of Professional Engineering, University of Sydney, 2017

Abdullah Al Farabi
Lecturer
B. Sc. in Engineering (Civil), BUET, 2017

Noshin Nawar Reza
Lecturer
B. Sc. in Engineering (Civil), BUET, 2018

Zarin Tasnim
Lecturer
B. Sc. in Engineering (Civil), BUET, 2017

Department Resources and Facilities

The Department facilities include state-of-the art classrooms and laboratory facilities, which are well equipped with up-to-date instruments and logistic support. The laboratory facilities serve the purposes of practical demonstration and analytical experiments in the following engineering disciplines:

- Transportation Engineering,
- Hydraulics Engineering,
- Engineering Materials,
- Geotechnical Engineering,
- Structural Mechanics & Strength of Materials,
- Environmental Engineering & Chemistry, and
- Computer Programming.

The laboratory facilities equipped with all up-to-date instrumentations provide the students with opportunities to do or be involved in original research in their respective fields. The Department maintains an independent library and an inventory, which contains published thesis books, faculty publications, textbooks, journals, and reference books.

Areas of Strengths and Best Practices

The strengths of the Department revolve with its committed and qualified faculty members and staff who provide quality services to the students whenever there is need without any default or delay.

The faculty members make sure that all courses are taught according to the stipulated curriculum and all academic regulations are followed. The Department makes all the specialty areas available in the discipline for students to explore the niche areas of specialization in Civil Engineering which makes students capable of solving complex problems and formulate engineering solutions.

The landmark strength is the accreditation of the Department by the Institution of Engineers, Bangladesh in 2007 and in 2018. The IEB accreditation provides the Department with national as well as global acknowledgement of the quality and standards of its program.

The Department and its faculty members take the use of HEQAP's quality assurance protocols with right earnest to achieve a system of outcome-based education through as-required assessment at student level. Moderation of exams and scrutiny of exam papers in each semester facilitate the quality assurance of the Department's program. The culture of quality has begun to be institutionalized at the department and is a milestone that has uplifted the department to a unique level.

In 2018, the department reached two milestones in its strength. In January 2018, the UGC-nominated external peer review team (EPRT) reviewed the curriculum, academic rigor of the BSc program, inspected physical facilities in the labs and rated it 'Very Good'. The team praised the faculty members for their dedication and commitment to implement outcome based education (OBE) in teaching-learning.

In April 2018, another review team from the Board of Accreditation for Engineering and Technical Education (BAETE) visited the Department. After thorough scrutiny, the Department was able to retain its status as an IEB accredited undergraduate program. The B.Sc. in Civil Engineering program is accredited with the grade 'good' for the next three years, ending in 2021.

The Department recognizes talented and top ranking students by providing opportunities to be recruited as teaching assistants, and subsequently secure high profile jobs in teaching, research or in industries at home and abroad.

Achievements of the Department

In 2018, 133 students, including 9 girls, earned their B.Sc. and 5 students earned their Master's degree from the Department.

Awards Received

Professor Dr Tanveer Ferdous Saeed received UGC Gold Medal for outstanding fundamental research contribution in engineering and technology in the year 2018.

UAP is the recipient of "Seven Rings Cement Award -2018" for its outstanding contribution to nation building through educating and producing excellent Civil Engineers for the country. On 6 December 2018, Head of the Department, Professor Dr Muhammad Mizanur Rahaman, received the award on behalf of UAP along with 8 Vice Chancellors of leading Engineering Universities - BUET, CUET, KUET, RUET, SUST, DUET, AUST as well as UAP at the Grand Ballroom of Radisson Blue Hotel in Dhaka.

In 2018, the American Concrete Institute (ACI) UAP had declared UAP as ACI Outstanding University, in a sequence of previous two years – 2016 and 2017, in recognition of the academic and extra-curricular activities of the students of the department.

Dr. Md Jihad Miah, Assistant Professor of the Department, received the best paper award of his paper titled "The Effect of Steel Slag Coarse Aggregate on the Mechanical and Durability Performances of Concrete" in the International Conference on Material and Manufacturing Technology (ICMMT 2019), 26-28 April 2019, Kuala Lumpur, Malaysia.

Alumni Achievements

Md. Safayat Hossain, graduated in 2017 is currently pursuing M.Sc. in Environmental Engineering degree at Ondokuz Mayis University, Turkey, with a full scholarship from Government of Turkey.

S M Jamil Uddin, graduated in 2016, has received a full scholarship from North Carolina State University (NCSU) to pursue PhD in Civil and Construction Engineering starting from Fall 2019.

Mohammad Soharab Hossen, graduated in 2015, completed his M.Sc. degree in Water Resources Engineering and Management in 2018 from UNESCO Madanjeet Center for South Asia Water Management under the University of Moratuwa, Sri Lanka, with a full scholarship by UNESCO South Asia. Foundation.

Nandita Saha, graduated in 2013, re-joined in 2019 as a Lecturer at UAP after completing her Master's degree from Osaka University in Japan.

Student Achievement

Abdullah Al Mamun, graduated in 2018, based on his undergraduate thesis, co-authored a paper, "Hydropower development along Teesta River Basin: Opportunities for Cooperation". The paper received best paper award in general

category in "*International Conference on Water and Environmental Engineering*" held at BUET during 21-22 January 2019.

Industrial Advisory Panel Formed to Strengthen Department-Industry Interfacing

The University of Asia Pacific appointed eight eminent professional engineers from the industry as "Industrial Advisor" to the Department of Civil Engineering in June 2018. The industrial advisory panel will advise the department with valuable ideas and insights of industry requirements to improve academic and research quality of the undergraduate and graduate programs offered by the Department of Civil Engineering. Members of the panel are:

Professor Dr M. Monowar Hossain
Executive Director
IWM

Engr. Md. Abdul Awal
Managing Director
The Structural Engineering Ltd.

Engr. Toufiq M Seraj
Managing Director, Sheltech

Engr. M. A. Sobhan, PEng.
Managing Director
DMP Consultants Ltd.

Engr. Itemad Ud Daulah
Chairman
DIRD Group.

Engr. H S Mozaddad Faruque
Director General
Bangladesh Water Development Board

Engr. Md. Shah Alam
Technical Advisor (Marketing & Sales)
Crown Cement Group

Engr. Abu Mohammed Masud
CEO & Managing Director
Icon Engineering Services

UAP CE Seminar Series

One of the greatest achievements of the Department during 2018-19 was the introduction of bi-weekly *UAP CE Seminar Series*. It has become one of the most fruitful co-curricular activities and students turn up in large numbers to attend the seminar. Scholars and professionals from different specialties of the discipline are regularly invited to give seminar to inform students about numerous research projects that are going on all over the world and to share their knowledge and experience. So far students have had the opportunity to attend 17 seminars from experts with a broad range of specialties as part of UAP CE Seminar Series (http://uap-bd.edu/ce/seminar/).

(a)

(b)

(a) Annemiek Prins, a researcher at University of Aberdeen, UK, and a speaker at UAP CE Seminar Series receives a token of appreciation from Professor Dr Muhammad Mizanur Rahaman

(b) Dr Taher Saif, Professor, University of Illinois at Urbana-Champaign, USA, delivering his keynote presentation in a seminar on "Science and Engineering Research in US - Role of the Government, National Labs and Universities" joinly hosted by UAP CE and Bangladesh Academy of Sciences.

UAP CE Training Programs

To cater more effectively to the needs of the students the department has launched a series of training programs. In these training sessions students can learn the tricks of the trade in a professional setting with seasoned veterans.

Training programs generally last for about six hours and are held on Saturdays.

Attendees of the training program on "Rainwater Harvesing" with UAP Vice Chancellor, National Professor Dr. Jamilur Reza Choudhury.

International Workshop on Sustainable Transport Equity Partnerships

A two-day long international workshop on "Sustainable Transport Equity Partnerships (STEPS)" was held at Lakeshore Hotel, Dhaka, during 27-28 March 2019. UAP and Dhaka Transport Coordination Authority (DTCA), The University of Leeds, UK, WALK21, and Work for Better Bangladesh jointly organized the workshop to find strategies and research avenues for "Making Dhaka Walkable". The objective of the workshop was to strategize how to make Dhaka one of the best case scenario for pedestrians.

In the workshop, participants from different government organizations, local and foreign universities, NGOs and research institutes participated to share their important views about the topic. Professor Karen Lucas, University of Leeds, UK, Bronwen Thornton, WALK21, UK, Heather Allen, Gender and Sustainable transport Expert, Belgium, Neil Lopez, De La Salle University, Philippines, and Diana Odero, UN Environment, showcased different international best practice scenarios for pedestrians. Dr Farzana Rahman and Dr Sharmin Nasrin from Department of Civil Engineering presented their research findings on mobility challenges of low income population in the workshop.

Externally Funded Research Project

"Sustainable Transport Equity Partnerships (STEP)" is a collaborative research project with the University of Leeds, UK, University of Asia Pacific, University of Manchester, UK, Walk 21 (International NGO), UN Environment, FIA Foundation, Volvo Research and Educational Foundations (VREF), and the University of Nairobi, Kenya. STEP is funded by Research England, UK. UAP received £11,000 for the research and conducted the STEP workshop held on 27-28 March 2019.

Participants of the STEP Workshop on 28 March 2019

National and International Collaboration

Professor Dr Muhammad Mizanur Rahaman

External Examiner, PhD Thesis, Faculty of Engineering, Built Environment and Information Technology, University of Pretoria, South Africa from September to October 2019.

Member of the Editorial Board, International Journal of Sustainable Society, Inderscience Publishers, UK, from 2009 to date.

External Peer Reviewer, Research Grant Application of International Center for Integrated Mountain Development (ICIMOD), Nepal from April 2019 to May 2019.

Invited Lecturer, Foreign Service Academy, the Ministry of Foreign Affairs, Bangladesh from April 2019 to May 2019.

External Expert, Technical Committee of Water Resources Planning Organization (WARPO), Government of Bangladesh from April 2019 to date.

Professor Dr Farzana Rahman

Principal Investigator, research project on "*Trip Chaining and Mode Choice Modeling and Feasibility of Ridesharing Services*" in association with MIST from July 2016 to June 2019.

Co-Principal Investigator, in research projects on:

a. "*Assessing the Bus Priority Lanes for Shahbag and Bijoy Sharani Intersection*" in collaboration with BUET from February 2015 to May 2019.

b. "*Gender and Transport Nexus: Achieving a more equitable and inclusive society*" funded by Eastern Asia Society for Transportation Studies International Research Group (IRG) from August 2016 to September 2019

c. "*Bus Service Quality Prediction*" in collaboration with Loughborough University, UK from May 2018 – May 2019

Professor Dr Tanveer Ferdous Saeed

Principal Investigator, research project on "*Fecal Sludge Management*" funded by WaterAid Bangladesh, from April 2018 to December 2018.

Department Events and Co-curricular Activities

The department facilitates and provides platform for the students to organize events that nurture their co-curricular skills. In the department, there is a student forum, called, Civil Engineering Students' Forum. Under the forum, there are 5 clubs; they are: Math Club, Civil Engineering Structure Club, Geotechnical Engineering Club, Environmental and Disaster Management Club and Transportation Club

Club Activities

Each of these clubs is independent and function through a working body consisting of a faculty advisor, president, vice president and student members. The activities of the clubs include event specific quizzes, presentations, projects, poster exhibitions and various club specific competitions (such as Sudoku and Rubik's cube competition by Math Club) all of which are held every semester. Apart from the listed clubs and activities, there are exhibitions and events in the Civil Engineering Festival every semester that are organized by the film club, art and photography club and the cultural club.

(a)

(b)

(a) Quiz Competition of Structure club and
(b) Students volunteering in the 1st UAP-SEL Junior High School Mathematical Olympiad - 2018 organized by Math Club.

Along with regular club activities and other festivities, the Department celebrated its twenty years journey in 2018. A ceremonial 20 kg cake was cut in front of jubilant students. In their brief speeches all the guests wished continued success for the department.

(a)

(b)

(a) Honorable Vice Chancellor and Honorable Chairman of the BOT cutting the cake to mark the 20th anniversary of the Department and
(b) Students performing at the cultural program afterwards.

Sports and Recreations

Various indoor and outdoor games and sports tournaments are organized throughout the year. Football and cricket tournaments are organized once a year. Indoor games, such as, table tennis, carom, ludo, chess and international bridge are organized every semester.

Study Tours

Study tours are organized every semester for the students to have the deserved respite from the intensive engagement in the engineering curriculum. Each semester, the students get to select a venue of their choice where they would like to venture through the nature and the ecosystem in addition to utilizing the field specific learning opportunities.

Departmental Study Tour of 36th batch at Kaptai Lake

During Fall 2018, students of batch 36 visited Rangamati and Khagrachari. The environmental challenges posed by the Kaptai Dam and the rain water harvesting techniques used by some families in Sajek Valley at Rangamati, brought students to the forefront of practical knowledge of the discipline. Rangamati is a holiday destination because of its landscape, scenic beauty, lake, colorful indigenous ethnic groups (Chakma, Marma etc), its flora and fauna, indigenous museum, hanging bridge, etc. Students were specifically interested to learn about the hanging bridge structure with practical details which are usually referred to as example during the class lectures.

In Spring 2019, students visited Sylhet and Sreemangal tourist spots. Students were exposed to a handful of natural reserves, like Bichanakandi, Jaflong valley, Lawachara forest and Madhabpur lake. Students were fascinated to learn about the irrigation method at work in tea gardens, animal and plant diversity in various natural reserves. Besides enjoying the scenic beauties, the students came to realize how uncontrolled collection and crushing of stones pose some serious threats to the neighboring areas of Jaflong, Sylhet.

Students of 37th batch in front of Lawachara National Forest

Visit to WARPO

The final year students of the department visited Water Resources Planning Organization in June 2019. The Director General of WARPO, Mr. Mahmudul Hasan, Directors Ms. Badrun Nahar and Mr. Taufiqul Islam, Principal Scientific Officer, Mr. Rezaul Karim, and Scientifc Officer, Mr. Kazi Saidur Rahman welcomed and briefed them on

the different activities of WARPO.

Picnic

A picnic is organized every year in the Fall semester for the students and faculty members for the purpose of relaxation. Each year, the students get to select a location of their choice where they can enjoy the sight of the nature, organizes different competitions, raffle draw, pitha utshob etc. The picnic during Fall 2018 was held at Dhaka Resort, Gazipur.

Departmental picnic held in Dhaka Resort in Fall 2018

Faculty Leadership

Professor Dr M. R. Kabir is re-elected as Chairman, Bangladesh Chapter, Association of University of Asia and the Pacific (AUAP).

Services to Social Responsibility

Students of Civil Engineering Department volunteer to conduct free literacy and blood donation programs, which provide them the opportunity to contribute to and connect them with the society. Students of the Department run a school for underprivileged children namely "Sholpo Meydai Shishu Shikhkha Karjokrom". The activity provides opportunities for interactions between the faculty and the students, which very often prove to be productive and innovative as a way of nurturing and strengthening the innermost capacities of the students.

Faculty Creativity

From the very beginning of each course, the faculty members tell the students what abilities/ attributes they will have to acquire by the end of the course. The instructor also demonstrates to them the importance of each ability/attribute in their professional career. The students thus become encouraged to attend all the class lectures regularly.

- In some of the classes, the students are asked to play the role of a teacher. The students are asked to demonstrate in the class what they have learned from the previous lectures delivered by the teacher. This helps them improve their communication skill.
- Pop quiz is often taken to assess the status of the student's level of understanding complex problems. In the first 15 minutes of a lecture, the teacher identifies who had faced problems in attaining/grasping the intended outcomes from the previous lecture and resolves them first, and then follow on with topic of the day's class.
- Relevant forms (to be filled up by moderator and scrutinizer) have been introduced to monitor and document the academic process management of the department. Teachers are advised to update the lectures materials and teaching methods as part of continuous quality improvement.

Department Goals for the Next Year

- Fully implement Outcome Based Education system for successful continuation of accreditation from national and international accreditation authorities and to enhance research KPI (amount of external fund received for research, number of peer-reviewed articles published in scientific journals, patent sought on innovation/discovery) of the Department by conducting quality research.
- Review curriculum to bring it up to the benchmark of internationally recognized programs and advices of peer review teams and stakeholders (alumni, Industry Advisory Panel members) to strengthen Civil Engineering program
- Carry on Continuous Professional Development (CPD) program for faculty members in attending workshops on professional training, conferences and seminars.

Publications of Faculty Members

A. Peer-reviewed Journal Papers

Alam, M. A. & Al-Riyami, K. (2018). Shear strengthening of reinforced concrete beam using natural fibre reinforced polymer laminates. *Construction and Building Materials*, 162, 683–696.

Alam, M. A., Suliman A. Bakkar, Shahnawaz A. Onik, & Kamal N. Mustapha (2018). Embedded Connector in Severe Optimization of Steel Plate for Shear Strengthening of RC Beam: Experimental and Numerical Investigations. *Advances in Civil Engineering*, Article ID 4721431, 12 pages. DOI: 10.1155/2018/4721431

Bavandpour, F., Zou, Y., He, Y., **Saeed**, T., Sun, Y. & Sun, G. (2018). Removal of dissolved metals in wetland columns filled with shell grits and plant biomass. *Chemical Engineering Journal*, 331, 234-241.

Hadiuzzaman, M., Farazi, N., Hossain, S., Barua, S. & **Rahman,** F. (2019). Structural Equation Approach to Investigate Trip-Chaining and Mode Choice Relationships in the Context of Developing Countries. *Transportation Planning and Technology*, 42(4), 391-415.

Hasan, M. M., Basak, K. & Kazi Rayhan (2018). Roadside urination and public sanitation facilities in Dhaka, Bangladesh. *Journal of Advanced Civil Engineering Practice and Research*, 7, 9-17.

Hasan, M. M., **Saeed**, T. & Nakajima, J. (2019). Integrated simple ceramic filter and waste stabilization pond for domestic wastewater treatment. *Environmental Technology & Innovation*, 14, 100319. DOI: 10.1016/j.eti.2019.100319.

Hossain, M.A., Miah, M. S., **Miah**, M. J. & Hossain, M.M. (2019). Performance evaluation of a newly developed translational tuned mass damper. *International Journal of Structural and Civil Engineering Research*, 8(2), 94-100.

Islam, M. S., **Ahmed**, S. J. & Alam, F.M. (2019). The failure bond force of untreated and epoxy-treated reinforcement: An analytical study. *Construction and Building Materials*, 201, 81–89.

Islam, M. S. & **Ahmed**, S. J. (2018). Influence of jute fiber on concrete properties. *Construction and Building Materials*, 189, 768-776.

Miah, M. J., Kallel, H., Carré,, H., Pimienta, P. & La Borderie, C. (2019). The effect of compressive loading on the residual gas permeability of concrete. *Construction and Building Materials*, 217 (2019), 12–19. DOI: 10.1016/j.conbuildmat.2019.05.057.

Miah, M.S., **Miah**, M. J., Hossain, M.M. & Faisal, M.F.A (2019). Nonlinear seismic response evaluation of gradually damaged steel shear frames. *International Journal of Structural and Civil Engineering Research*, 8(1), 34-39.

Miah, M. S., **Miah**, M. J., Hossain, M. M. & Paul, S.C. (2018). Nonlinear seismic response of flat plate systems made with ultra low strength concrete. *Global Science and Technology Journal*, 6(2), 35-46.

Noor, S.T., Islam, S. & Reza, S. M. S. (2019). SPT Based Soil Liquefaction Susceptibility Assessment: A Review. *Journal of Environmental Treatment Techniques*, 7(3), 295-299.

Quddus, M., **Rahman**, F., Monsuur, F., Ona, J. & Enoch, M. Analyzing Bus Passengers' Satisfaction in Dhaka using Discrete Choice Models. *Transportation Research Record*, 2673(2), 758-768. DOI: 10.1177/0361198119825846.

Rahaman, M. M. & Shehab, M. K. (2019). Water consumption, land use and cropping patterns of Rice, Wheat and Potato in South Asia during 1988-2012. *Sustainable Water Resources Management*, 1-18. DOI: 10.1007/s40899-019-00331-4.

Rahaman, M. M. & Shehab, M. K. (2018). Is the propensity of increasing the rice production a sustainable approach? Experiences from India, Pakistan, and Bangladesh. *Journal of Water Resources Management,* 5(2),12-28.

Rahman, M.M. & **Rahaman**, M. M. (2018). Impacts of Farakka barrage on hydrological flow of Ganges river and environment in Bangladesh. *Sustainable Water Resources Management*, 4(4), 767-780. DOI: 10.1007/s40899-017-0163-y.

Rahman, F., Joewono, T. B. & Masum, S. A. (2018). Application of traffic calming Devices In developing Countries: Learning lesson from Bangladesh. *Journal of Transportation Technologies,* 8, 119-135.

Reza A., **Saqif**, M. A., Anzum S. & Aziz A. M. (2018). Review on Corrosive Behavior and Possible Protective Measures for Reinforcing Bars. *International Journal of Engineering & Technology,* 7 (3),154-159.

Saeed, T., Haque, I. & Khan, T. (2019). Organic matter and nutrients removal in hybrid constructed wetlands: Influence of saturation. *Chemical Engineering Journal*, 371 (1), 154-165.

Saeed, T. & Khan. T. (2019). Constructed wetlands for industrial wastewater treatment: Alternative media, input biodegradation ratio and unstable loading. *Journal of Environmental Chemical Engineering*, 7 (2), 103042. DOI: 10.1016/j.jece.2019.103042.

Saeed, T. Muntaha, S., Rashid, M., Sun, G. & Hasnat, A. (2018). Industrial wastewater treatment in constructed wetlands packed with construction materials and agricultural by-products. *Journal of Cleaner Production*, 189, 442-453.

Saeed, T. Yasmin, N., Sun, G. & Hasnat, A. (2019). The use of biochar and crushed mortar in treatment wetlands to enhance the removal of nutrients from sewage. *Environmental Science and Pollution Research*, 26, 586–599.

Wardi, S., **Saha**, N., Takahashi, S. & Sanada, Y. (2019). Pullout test of post-installed Anchors in low strength Concrete with brick chips Representing Bangladeshi Concrete. *AIJ Journal of Technology and Design*, 25(59), 199-204.

Xie, L., **Rahaman**, M. M. & Shen (2018). When Do Institutions Work? A Comparison of Two Water Disputes Over the Ganges, Brahmaputra and Meghna Rivers Basins. *Water Policy*, 20(2), 308-322. DOI: 10.2166/wp.2017.149**.**

B. Conference Papers

Afifah, F., **Nasrin,** S. & Mukit, A. (2018). Vehicle Speed Estimation Using Image Processing. *7th International Conference on Applied Science and Engineering Application*, 8-9 December 2018, **Sabah,** Malaysia.

Alam, M. A., Hossain, N., Debnath, H. C., Ghosh, P. K. & Rahman M. M. (2019). Shear strengthening of damaged RC beam using externally bonded steel plate with embedded connector and steel bar. *2nd International Conference on Structural Engineering Research*, 19-22 January 2019, Dhaka, Bangladesh. ISBN: 978-0-6482681-2-3.

Alam, M. K., Hossain, S. & **Majed**, N. (2019). Exploring the variability pattern of temperature and rainfall if different regions of Bangladesh: A study ranging 20 years' span. *International Conference on Disaster Risk Management, BUET-JIDPUS*, 12-14 January 2019, Dhaka, Bangladesh.

Hasan, M. M., Islam, M. A., Das, P. & **Rahman**, F. (2018). Passengers' Perceived Service Quality of Public Transport in Dhaka City, Bangladesh. *4th International Conference on Advances in Civil Engineering*, 19 –21 December 2018, Chittagong University of Engineering and Technology, Chittagong, Bangladesh.

Hossain. A. B. M. I., **Chowdhury**, R.M., Newaz. A., & **Afifah,** F. (2019). DRASTIC Based Vulnerability Assessment in Northwestern Part of Bangladesh. *International Conference on Engineering Research and Education School of Applied sciences & Technology*, 25-27 February 2019, Shahjalal University of Science and Technology, Sylhet, Bangladesh.

Islam, M. A. & **Rahman**, F (2018). Exploring Paratransit Service Quality Based on Low Income Women's Perception: A Case Study in Dhaka City. *4th International Conference on Advances in Civil Engineering,* 19 –21 December 2018, Chittagong University of Engineering and Technology, Chittagong, Bangladesh.

Khan MT., **Jahan**, I. & Amanat KM. (2018). Splitting tensile strength of natural aggregates, recycled aggregates and brick chips concrete. *Proceedings of the Institution of Civil Engineers - Construction Materials*, ICE Virtual library. https://doi.org/10.1680/jcoma.18.00049.

Majed, N. & Chawdhury, M. R. I. (2018). The Story of Turag River: How Severe is the Pollution?. *ASCE World Environmental and Water Resources Congress*, 3-7 June, 2018, Minneapolis, Minnesota, USA.

Mia, M. R. & **Majed**, N. (2018). Municipal Solid Waste Management Practices in Dhaka City: An Evaluation based on Life Cycle Assessment. *4th International Conference on Advances in Civil Engineering*, 19-21 December 2018, Chittagong University of Engineering and Technology, Chittagong, Bangladesh.

Miah, M. J., Miah, M. S., Sultana, A., Shamim, T. A. & Alom, M. A. (2019). The Effect of Steel Slag Coarse Aggregate on the Mechanical and Durability Performances of Concrete. *10th International Conference on Material and Manufacturing Technology*, 26-28 April 2019, Kuala Lumpur, Malaysia.

Miah, M. S. & **Miah**, M. J. (2019). An Effective Retrofitting Scheme for Flat Slab Systems Made with Unconventional Type Concrete. *10th International Conference on Material and Manufacturing Technology*, 26-28 April 2019, University of Malaya, Kuala Lumpur, Malaysia.

Miah, M. J., Miah, M. S. & Patoary, M.M.H. (2019). Mechanical properties of concrete containing steel slag aggregate. *Proceedings of the 5th International Conference on Engineering Research, Innovation and Education* (pp. 58-63). Bangladesh: Shahjalal University of Science and Technology.

Miah, M.S., **Miah**, M. J. & Faisal, F.A. (2019). Seismic response evaluation of undamaged and partially damaged steel shear frames. *Proceedings of the 5th International Conference on Engineering Research, Innovation and Education* (pp. 64-70). Bangladesh: Shahjalal University of Science and Technology.

Miah, M. J., Miah, M. S. & Alam, W. B. (2018). Strengthening of reinforced concrete beams utilizing ferrocement: role of external loading positions. *Proceedings of the 4th International Conference on Advances in Civil Engineering* (pp. 490-495). Bangladesh: Chittagong University of Engineering and Technology.

Miah, M .J. & Miah, M. S. (2018). Durability performance of fair-faced concrete. *Proceedings of the 4th International Conference on Advances in Civil Engineering* (pp. 496-501). Bangladesh: Chittagong University of Engineering and Technology.

Miah, M.J., Miah, M. S., Uddin, M.A. & Suzauddoula, M. (2018). Optimization of mechanical properties of high performance concrete made with fly ash and blast-furnace slag. *Proceedings of the 4th International Conference on Advances in Civil Engineering* (pp. 502-507). Bangladesh: Chittagong University of Engineering and Technology.

Nasrin, S. & **Afifah**, F. (2019). Walkability assessment tool for a developing country. *IOP Conference Series: Materials Science and Engineering*, 527 (1), 012073. DOI:10.1088/1757-899X/527/1/012073.

Noor, S. T., Chowdhury, P. & Chowdhury, T. (2018). Immediate and long term effects of compaction on the stress-strain behaviour of soil. *IOP Conference Series: Earth and Environmental Science*, 143(1), 012014.

Noor, S. T., Rahman, S. R. & Nahar, S. (2018). Effect of in-situ disturbance within the soil mass on the stress-strain behaviour of silty soil. *IOP Conference Series: Earth and Environmental Science*, 143(1), 012035.

Noor, S. T., Islam, M.S. and Islam, M. A. (2018). Monitoring of strut force in excavation in bridge pier using vibrating wire strain gauge. *International Conference on Innovation, Science, Engineering and Technology*, 27-28 October 2018, International Islamic University, Chittagong, Bangladesh.

Noor, S. T., Islam, M. S., Mumtarin, M. and Chakraborty, N. (2018). Dynamic load test of full scale pile for the construction and rehabilitation of bridges. *IOP Conference Series: Materials Science and Engineering*, 513(2019), 012017.

Rahaman, M. M., Islam, A., Ador, F. J. & Biswas, A. K. (2019). Bangladesh Water Act (2013) and International Water Management Principles: An analysis. *Book of abstracts of the 7th International Conference on Water and Flood Management* (pp. 107-108). Dhaka: Bangaldesh Bangladesh University of Engineering and Technology.

Rahaman, M. M. & Mamun, A. A. (2019). Hydropower development along Teesta river basin: Opportunities for cooperation. In Rahman, M. M., Rahman, A., Badruzzaman, A.

B. M., Ouarda, T. B. M. J. (Eds.) *Proceedings of the 2nd International Conference on Water and Environmental Engineering* (iCWEE2019) (pp. 58-69). Dhaka: Bangladesh University of Engineering and Technology.

Rahman, F. Islam, M. A. U. & Hasan, M. M. (2019). Exploring Passengers Perception of Ride Sharing Service on Dhaka City. *International Conference on Engineering Research and Practice*, 19-23 January 2019, Dhaka, Bangladesh.

Safayat, H. M., Bari, M. S. & **Rahaman**, M. M. (2019). Hydropower Development in South Asia: Benefits for Bangladesh. *CD proceedings of the 4th Eurasian Conference on Civil and Environmental Engineering*, 17-18 June 2019, Istanbul, Turkey. Turkey: Istanbul Gelisim University and Nevsehir Hacı Bektas Veli University (NEVU).

Saha, N. Wardi, S., Takahashi, S. & Sanada, Y. (2018). Report on Pullout Test of Post Installed Anchors in Low Strength Concrete with Brick Chips, *Architectural Institute of Japan (AIJ) Conference*, September 2018, Sendai, Japan.

Saleh S., **Saqif**, M. A. & Ramiz F. (2019). Comparison of behavior between hollow and composite K-joints under sustained loading and corrosion. *IOP Conference Series: Materials Science and Engineering*, 513(1), 012039. DOI: 10.1088/1757-899X/513/1/012039.

Soharab, H. M., Hossain, M. S. & **Rahaman**, M. M. (2019). Sangu River's contribution to the livelihood of local people. *Electronic proceedings of the 3rd International Water Conference: River a living being*, 16 pages, 29-30 January 2019, Action Aid, Kuakata, Patuakhali, Bangladesh.

Wardi, S., **Saha**, N., Takahashi, S. & Sanada, Y. (2018). Strengthening with Wing Walls for Exterior RC Beam-Column Joint with Straight Anchorage of Beam Longitudinal Rebar. *Architectural Institute of Japan (AIJ) Conference*, September 2018, Sendai, Japan.