

Career Objectives

To reach career excellence through dedication, sincerity, creativity, hard work and aspiring for a challenging and growth oriented career in teaching profession wherein I can prove my ability in serving the institution and my country as a whole.

Job Experiences

- Working as a **Lecturer** in Civil and Environmental Engineering Department (CEE) at **North South University (NSU)**, Bashundhara, Dhaka, Bangladesh, from 15 Aug 2015 till today.
- Worked as a **Graduate Research Assistant** from **September, 2012 to May, 2015** in Civil Engineering Department at the **University of British Columbia (UBC), Vancouver, BC, Canada**
- Worked as a **Graduate Teaching Assistant** from **September, 2012 to May, 2015** in Civil Engineering Department at the **University of British Columbia (UBC), Vancouver, BC, Canada**.
Courses: Environmental Laboratory Analysis, Engineering Hydrology, Hydrology and Open Channel Flow, Fluid Mechanics I, Environmental Impact Studies
- Worked as a **Lecturer** in Civil Engineering Department from **2nd May, 2011 to 3rd May, 2012** at **University of Information Technology and Sciences (UITS)**, Baridhara, Dhaka, Bangladesh

Educational Attainment

Graduate

M.A.Sc. in Civil Engineering

Areas of Specialization: **Environmental Engineering** (Pollution Control and Waste Management)

Institution: **The University of British Columbia (UBC), Vancouver, Canada**

Passing Year: **May, 2015**

Undergraduate

B.Sc. in Civil Engineering

Institution: **Bangladesh University of Engineering and Technology (BUET)**

Passing Year: **February, 2011**

Higher Secondary School Certificate (H.S.C.)

Institution: Viqarunnisa Noon College

Group: Science

Board: Dhaka

Passing Year: 2005

Secondary School Certificate (S.S.C.)

Institution: Mohammadpur Preparatory & Girls' High School

Group: Science

Board: Dhaka

Passing Year: 2003

Graduate Thesis

Worked on the **M.A.Sc. thesis** project of "**A Pilot Scale Study of Combining Struvite Precipitation with UniBAR-Anammox process as a Sustainable Unified Solution for Managing Nutrients in Centrate**" at **Annacis Wastewater Center** Research Facility, Metro Vancouver, Delta, BC, under the supervision of **Prof. Dr. Donald S Mavinic**, Professor, Department of Civil Engineering, Pollution Control and Waste Management Group, UBC.

- Worked on nutrients recovery in the form of struvite pellets (a slow release fertilizer) from centrate at Annacis wastewater center, Metro Vancouver, Delta, BC, Canada
- Involved in research on wastewater treatment by planning, setting and running experiments in pilot scale
- Designed and built pilot scale struvite reactor for struvite precipitation (a chemical process) and UniBAR-Anammox reactor for Anammox process (a biological process) to remove and recover phosphorus and nitrogen from wastewater
- Conducted different experiments, Sample testing and experimental data analysis on wastewater (centrate) while running the pilot scale reactors continuously over a year

Undergraduate Thesis

Undergraduate Thesis entitled "**Effect of Chlorination on Domestic and Textile Wastewater**" under the supervision of **Dr. Md. Delwar Hossain**, Professor, Department of Civil Engineering, Bangladesh University of Engineering and Technology (BUET)

- Conducted bench scale study on domestic and textile wastewater by applying different chlorine doses and observed the change in water quality
- Determined the optimal chlorine dose and contact time for BOD and COD removal from wastewater

Conferences:

- Presented on the topic of "Wastewater Nutrients Removal and Recovery by Combining Struvite Precipitation with UniBAR-Anammox Process" at **50th Central Canadian Symposium On Water Quality Research conference**, Feb 18-19, 2015, Burlington, Ontario, Canada.
- Presented on the topic of "Optimization of Combined Struvite Precipitation and UniBAR-Anammox process as a Sustainable Unified solution for Nutrients management in wastewater sector" at **Water & Environment Student Talks (WEST) Conference**, June 8-10, 2013 UBC, Vancouver, BC, Canada.
- Attended **BCWWA 2013 Annual Conference & Trade Show**, April 20-24, 2013, Kelowna, BC, Canada
- Attended **WEF/IWA Nutrient Removal and Recovery 2013: Trends in Resource Recovery and Use** conference, July 28 - 31, 2013, Vancouver, BC, Canada

Magazine Article:

- Kalam, S., 2015. **Electronic Waste- Are We Ready?** *Towards Sustainable Development*, Oct 27, pp.32-33. ISBN No: 978-0-99-36241-2-4.

Other Work experiences

- **CEE Department Orientation Program, NSU**, Bangladesh [Feb/2016]
Job Responsibility: Organizing Department Orientation Program
- **Civil Engineering Festival 2015, North South University (NSU)**, Bangladesh [Oct/2015]
Job Responsibility: Organizer of Civil Fest and Cultural Show

- **Engineering Power UP! Event by UBC engineering & WWEST, Canada [Apr/2014]**
Job Responsibility: Conducting lab experiments for high school girls to encourage in engineering carriers
- **Graduate student event at UBC for prospective graduate students, Canada [Oct/2014]**
Job Responsibility: Organizing the event involving 5 engineering schools of Canada
- **Survey on Gulshan Traffic Congestion Mitigation Project, Bangladesh [Oct/2010]**
Job Responsibility: Traffic Volume count
- **Pre-Feasibility Study of Grade Separated Intersections in Mirpur road, Bangladesh [July/2010]**
Job Responsibility: Classified Directional Manual Traffic Count Survey
- **Socio-economic Evaluation of Submercible Rural Roads in Sunamganj Project, Bangladesh [May/2010]**
Job Responsibility: Household Survey in Sunamganj upazilla and Biswamverpur upazilla
- **Origin-Destination (OD) survey, Bangladesh [Nov/2009]**
Job Responsibility: OD survey at road intersections

Scholarships and Awards

- Canadian Association on Water Quality Award (UBC)
- Faculty of Applied Science Graduate Award (UBC)
- Talent pool and general grade scholarship for term final results & Dean's list (BUET)
- Board Scholarship (Talent pool) for S.S.C. & H.S.C. results
- 2nd in talent pool grade in Primary scholarship & 4th in talent pool grade in Secondary scholarship

Field Visit

- Annacis Island Wastewater Treatment Plant, Delta, BC, Canada
- Northwest Langley Wastewater Treatment Plant, Langley, BC, Canada
- Seymour-Capilano Filtration Plant, Drinking water Treatment Plant, North Vancouver, BC, Canada
- Coquitlam Water Treatment Plant, Drinking water Treatment Plant, Coquitlam, BC, Canada
- 3rd Karnafuli River Bridge construction, Chittagong, Bangladesh
- Kaptai Hydro-electric project, Kaptai, Rangamati, Bangladesh
- Practical surveying in Purbachal Land Project, Dhaka, Bangladesh

Extracurricular Activities and Awards

Awards in Debate, Sports, Extempore Speech, Recitation, Song and Quiz competition

References

- Dr. Donald S. Mavinic
Professor, Department of Civil Engineering
The University of British Columbia (UBC), Vancouver, Canada
Email: dsm@civil.ubc.ca
- Dr. Md. Delwar Hossain
Professor, Department of Civil Engineering
Bangladesh University of Engineering & Technology (BUET), Dhaka, Bangladesh
Email: delwar@ce.buet.ac.bd

I hereby declare that all the information above is correct & true.

Sifat Kalam