

Shah Md. Toufiqur Rahman

Department of Chemical Engineering
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Professional Experiences

Lecturer

March 2011 - Present

Dept. of Chemical Engineering, BUET – 1000

- Course teacher of undergraduate Laboratory courses: Material and Energy Balance, Fluid Mechanics, Mass Transfer, Heat Transfer. Particle Technology, Unit Operation, Reaction Engineering and Fuel Lab.
- Course teacher of Computer Programming and Application, Chemical Process Analysis Sessional and Computational Methods for Chemical Engineering.

Education

B. Sc. in Chemical Engineering

23 February, 2011

Dept. of Chemical Engineering, BUET – 1000

CGPA: 3.81 (out of 4)

Research Experience

Master's Thesis Work

Ongoing

A new approach for facility siting using mapping risks on a plant grid area and optimization.

Supervisor: Prof. Syeda Sultana Razia

Dept. of Chemical Engineering

Undergraduate Thesis Work

Corrosion and Corrosion Inhibition in Dynamic Acid Media.

Supervisor: Prof. Iqbal Mahmud

Dept. of Chemical Engineering

Undergraduate Design Work

Design of 100 ton/Day Phosphoric Acid Plant.

Supervisor: Prof. Syeda Sultana Razia

Dept. of Chemical Engineering

Awards and Scholarship

- University Merit List Award in each semester.
- Dean List award
- Technical Scholarship for Engineering Education.
- Shamsul Alam Memorial Scholarship
- National Award for both SSC and HSC Examination.
- Junior Scholarship award

Publication

Conference Proceeding

1. **Rahman, S. M. T.**, Rahman M. and Mahmud, I., "Corrosion and Corrosion Inhibition in Dynamic Acid Media", proceedings of ICChE'11, BUET, Dhaka, December 29-30, 2011.

Poster Presentation

1. **Rahman, S. M. T.**, Goshawmi J, Rahman M.M., Ahmed, L. "Biogas- A potential Energy Solution for Bangladesh", 2nd International Conference on Chemical Engineering (ICChE'08), BUET, Dhaka, January 1, 2009.
2. **Rahman, S. M. T.**, Hasan M., Rob, R. 'Experiment of Orifice Meter', Annual Class Competition held in Dept. of Chemical Engineering, BUET – 1000.

Professional Experience

Consultancy

Member, Bureau of Research, Testing and Consultation (BRTC), BUET, Dhaka. (2011 – Present)

- Project Title: Off-grid power Generation Emission Factor for Bangladesh. (2011)
Scope: Sub-consultancy for Mott Macdonald.
Client: General Electric (GE).
- Project Title: Design Check of Synthetic Resin Products (Pvt.) Limited (2012).

Industrial Training

- Chittagong Urea Fertilizer Factory Limited, Chittagong, 2010.

Professional Activities

Workshop Instructor

- Training Course on 'Simulation and Optimization of Chemical Process Plant Using Process Simulator' jointly organized by Chemical Engineering Department, BUET and Chemical Engineering Division, IEB on April 19-21, 2012.

Editorial Activities

- Member, Proceedings Sub-committee of 3rd International Conference on Chemical Engineering, BUET, Dhaka, December 29-30, 2011.
- Assistant Editor, 'Journal of Chemical Engineering', The Institution of Engineers Bangladesh, Vol. ChE 26, No. 2 December 2011 (ISSN: 2221-7436).
- Editor of proceeding published in 2nd Annual Paper Meet of Chemical Engineering Division, The Institution Engineers Bangladesh, Chittagong, 3rd December, 2011.
- Editor of Souvenir published in 'A Seminar on Career Opportunity and Developing Professional Skills of the Chemical Engineering Students 2010'.

Short Course and Workshop Attended

- International Short Course on "Fundamentals of Process Safety and Risk Management", offered by Prof. Sam Mannan, Prof. Adam S. Markowski, Prof. Hans Pasman, Prof. J.P. Gupta and Prof. Maria Papadaki of Texas A&M University, December 31, 2011 – January 1, 2012.
- Short Course on "Design in AutoCAD and SolidWorks", organized by Directorate of Continuing Education, BUET, 22-24 September, 2011.
- "Teachers' Appreciation Workshop", Directorate of Continuing Education (DCE), BUET, 11-13 April, 2011.
- "Workshop on Technical Writing & Presentation", Chemical Engineering Department, BUET, Dhaka, January 21, 2010.

Technical Visit

- Polash Urea Fertilizer Factory Ltd., (Capacity: 95000 MT urea/year), Narsingdhi.
- Institute of food science and technology (under Bangladesh Council of scientific and industrial research, BCSIR), Dhaka.
- TSP Complex Limited, Patenga, Chittagong (Capacity: 1,00000 MT TSP and 1,20000 MT SSP per annum)
- Hydrogen Peroxide Plant of HP chemicals, Narayanganj: Two days long visit.
- Global Heavy Chemicals Ltd. (Caustic and allied products), Dhaka.
- ASM Chemical Industries Ltd. (Caustic and Hydrogen Peroxide), Gazipur.

Technical Skills

- Extensive familiarity with Aspen HYSYS, Batch Plus, Batch Process Developer, Batch Distillation, MATLAB, GAMS, AutoCAD and Solid Works.
- FORTRAN programming language.
- Experience with standard laboratory equipment and techniques: Air pollution measurements (CO, CO₂, SO_x, NO_x, PM₁₀, PM_{2.5}), water quality measurements (BOD, COD, TDS, TSS), Gas Chromatography, Spectrophotometry, fuel quality analysis.

Others Activities

- Organized 2nd Annual Paper Meet of Chemical Engineering Division, The Institution Engineers, Chittagong, 3rd December, 2011.
- Organized 'Seminar on Career Opportunity and Developing Professional Skills of the chemical Engineering Students 2010'.