

K. M. Tanvir Ahmmed

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EDUCATION

Master of Science in Chemical Engineering December, 2011
Bangladesh University of Engineering & Technology, Dhaka

- Earned a cumulative GPA of 3.83/4.00

Bachelor of Science in Chemical Engineering March, 2009
Bangladesh University of Engineering & Technology, Dhaka

- Graduated with Honours and a cumulative GPA of 3.79/4.00
- Placed 3rd in a class of 66

TEACHING EXPERIENCE

Lecturer, Bangladesh University of Engineering & Technology, Dhaka Nov, 2009 - Present

- Course teacher of undergraduate laboratory courses: Fluid Mechanics, Mass Transfer, Heat Transfer, Particle Technology, Unit Operation, Reaction Engineering and Fuel Lab.
- Course teacher of "Computer Programming and Applications" and "Chemical Process Analysis Sessional".

Teaching Assistant, Bangladesh University of Engineering & Technology, Dhaka May - Sept, 2009

- Graded assignments and class tests.
- Prepared experimental procedures for undergraduate laboratories.

RESEARCH EXPERIENCE

Master's Thesis Work December, 2011
Title: Enhancement of Nucleate Pool Boiling Heat Transfer with Surfactant
Supervisor: Associate Professor Syeda Sultana Razia

Environmental Engineering Lab, Department of Chemical Engineering, BUET April - August, 2010
Research Project: Air and Water Pollution aspects of Dhaka City
Supervisor: Professor Dil Afroza Begum

Undergraduate Thesis Work March, 2009
Title: Removal of Dye from Textile Wastewater by Using Activated Carbon in a Fixed Bed Adsorber
Supervisor: Associate Professor Syeda Sultana Razia

Undergraduate Design Project March, 2009
Title: Design of 100 MT (50%) per Day Hydrogen Peroxide Plant
Supervisor: Associate Professor Sirajul Haque Khan

SCHOLARSHIPS AND AWARDS

- McGill Engineering Doctoral Award (MEDA) 2012
- Dean's list, for two academic years at BUET.
- University Merit Scholarship and General Scholarship, for each semester of undergraduate study.
- Khalek and Bari Award (2006 -2007).
- Shohudur Rahman Memorial Scholarship (2005 - 2006).

PUBLICATIONSJournal

1. Sultana R. Syeda, Shammi A. Ferdousi and Ahmmed, K. M. Tanvir, "De-colorization of textile wastewater by adsorption in a fluidized bed of locally available activated carbon", J. Environ. Sci. Health, Part A, 47 (2), pp. 210-220, 2012.

Conference Proceedings

1. Ahmmed, K. M. Tanvir and Sultana R. Syeda, "Enhancement of pool boiling heat transfer by using Sodium Oleate surfactant", pp. 11-14, proceedings of ICChE'11, BUET, Dhaka, December 29-30, 2011.
2. Ahmmed, K. M. Tanvir & Begum, D. A., "Air Pollution Aspects of Dhaka City", pp. 129-131, Proceedings of ICEAB10, University of Kitakyushu, Kitakyushu, Fukuoka, Japan, September 4, 2010. (ISBN: 978-984-33-1979-1)
3. Begum, D. A. & Ahmmed, K. M. Tanvir, "Water Quality Aspects in and around Dhaka City", pp. 175-178, Proceedings of ICEAB10, University of Kitakyushu, Kitakyushu, Fukuoka, Japan, September 4, 2010. (ISBN: 978-984-33-1979-1)

Seminar Proceedings

1. Begum, D. A. & Ahmmed, K. M. Tanvir, "Impact of Regional Cooperation on Reduction of Air and Water Pollution Level of Dhaka City", pp. 38-48, Proceedings of the National Seminar, The Institution of Engineers, Dhaka, Bangladesh, January 12-17, 2012.

Poster

1. Ahmmed, K. M. Tanvir and Islam, Syed Zahadul, "Removal of Colour from Textile Wastewater by Using Activated Carbon in a Fixed Bed Adsorber", 2nd International Conference on Chemical Engineering (ICChE'08), BUET, Dhaka, January 1, 2009.

PROFESSIONAL AFFILIATION

- Associate Member of The Institution of Engineers, Bangladesh (IEB). (2010-Present)

PROFESSIONAL EXPERIENCE

Consultancy

Member, Bureau of Research, Testing and Consultation (BRTC), BUET, Dhaka. (2010 – Present)

- Project Title: Off-grid Power Production and its Emission Factor for Bangladesh. (2011)
Scope: Sub-consultancy for Mott Macdonald.
Client: General Electric (GE).
- Project Title: Design Check of Condensate Refinery Plant. (2011)
Client 1: PHP Petro-Refinery Ltd. (capacity: 30,000 MT/year)
Client 2: Petromax Refinery Ltd. (capacity: 100,000 MT/year)
- Project Title: Second National Communication of Bangladesh under UNFCCC. (2010-2011)
Scope: Activity 2: Greenhouse Gas Inventory (Energy Sector) and Activity 3: Programmes containing measures to mitigate climate change (Energy Sector).
Client: UNDP and DoE, Gov. of Bangladesh.

Industrial Training

- Jamuna Fertilizer Company Limited (JFCL), Jamalpur (capacity: 561,000 MT/year). (December, 2007)

PROFESSIONAL ACTIVITIES

Workshop Instructor

- "Environmental Awareness Workshop" for 450 MW - Meghnaghat Power Limited (Pendekar Energy), Narayanganj, 13 and 17 January, 2011.
- "Workshop on Process Simulators" arranged by Department of Chemical Engineering, BUET, 7-8 October, 2010.

Editorial Activities

- Member, Proceedings Sub-committee of 3rd International Conference on Chemical Engineering, BUET, Dhaka, December 29-30, 2011.
- Contributing Editor, Chemical Engineering Research Bulletin (ISSN Print:0379-7678 Online:2072-9510).
- Assistant Managing Editor, ChE Thoughts – Chemical Engineering and Science Magazine (ISSN Print: 2218-5216 Online: 2220-3389).

Short Courses and Workshops Attended

- "South Asia Workshop on Natural Gas Vehicle Programme", conducted by Centre for Science and Environment, New Delhi, India, February 27 – March 1, 2012.
- International Short Course on "Fundamentals of Process Safety and Risk Management", offered by Prof. Sam Mannan, Prof. Adam S. Markowski, Prof. Hans Pasma, 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.
- Short Course on "Power Generation", jointly organized by Center for Energy Studies and Dept. Of Mechanical Engineering, BUET, 6-8 Feb. 2011.
- International Short Course on "Fundamentals of Process Safety and Risk Management", offered by Dr. Sam Mannan and Dr. Hans Pasma of Texas A&M University, 9-10 December, 2010.
- "Teachers' Appreciation Workshop", Directorate of Continuing Education (DCE), BUET, 11-12 May, 2010.
- "Workshop on Technical Writing & Presentation", Chemical Engineering Department, BUET, Dhaka, January 21, 2010.

Technical Visits

- 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.
- SCADA System at the master control room of Gas Transmission Company Ltd. (GTCL), Demra, Dhaka.
- Wastewater Treatment Plant at Ha-Mim Textile Industries, Ashulia, Dhaka.
- Saidabad Water Treatment Plant, Dhaka WASA, Dhaka.
- Hydrogen Peroxide Plant of HP chemicals, Narayanganj: Two days long visit.
- Global Heavy Chemicals Ltd. (Caustic and allied products), Dhaka.
- Crescent Chemicals (Sulphuric acid plant), Gazipur.
- ASM Chemical Industries Ltd. (Caustic and Hydrogen Peroxide), Gazipur.

TECHNICAL SKILLS

- Extensive familiarity with Aspen HYSYS, FAST Piper, MATLAB, AutoCAD and SolidWorks.
- 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, different metal ions), Gas Chromatography, Spectrophotometry, fuel quality analysis, surface area and pore volume determination of adsorbents, surface tension, surface roughness measurement, CSTR operation.

OTHER ACTIVITIES

- Organized conference, workshops and seminars in chemical engineering department, BUET.
- Organized Chemical Day'08 (A job seminar, career talk show and cultural evening were the parts of the program).
- Enlisted as a volunteer employee in "Biswa Shahitto kendro" (A socio-cultural non-profit institution), for three years.
- Chaired the "Bogra Association of BUET students" (A student association) for one year.
- Created, revised and monitored English Wikipedia articles.