



Dr Md Tanvir Sowgath
Associate Professor,



**Chemical Engineering Department,
Bangladesh University of Engineering and Technology**

PROFILE

10+ years of experience in teaching and research and industry
Experience in delivering presentations to academic and industrial audiences
Strong academic research collaborations with other universities

▼ Academic Experience

June 2009–Present

Associate and Assistant Professor, Chemical Engineering Department, BUET, Bangladesh

- Delivering Undergraduate and Post Graduate lectures
- Supervising Undergraduate Postgraduate Projects
- Collaborating different research with industrial/academic partner
- Conducting different testing methods (ASTM/API) in Laboratory for the clients of the Bureau of Research, Testing and Consultation, BUET
- Administrative duties include Secretary to Undergraduate Board, Postgraduate Tabulation.

▼ Education

PhD

University of Bradford, Bradford, UK

December, 2007

B.Sc in Chemical Engineering

Bangladesh University of Engineering and Technology, Bangladesh

April, 2002

▼ Research Interest

- Intelligent Safety study using Neural network techniques
- A simulation study of Fertilizer Company and Zia Fertilizer Company in Bangladesh in Bangladesh using Aspen HYSYS and Aspen plus
- Optimization study of Kailashtilla Gas Processing Plant
- Neural network-based model development of Kailashtilla Gas Processing Plant
- Modeling, and MINLP Optimization Study of Desalination process
- Low-cost water treatment techniques development for Bangladesh



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▼ **Undergraduate Courses Taught**

- Mathematical Models in Chemical Engineering
- Special Topics in Unit Operations
- Chemical Process Design (Chemical Process Design)
- Process Design II (Project Engineering for Chemical Engineering)
- Environmental Engineering
- Industrial Pollution Control
- Computational Technique in Chemical Engineering (Matlab)
- Material and Energy Balance

▼ **Postgraduate Courses Taught**

- Computer-Aided Process Design
- Optimization of Chemical Process

▼ **Other Professional Experiences**

15 September 2016 – 30 September 2017

Honorary Visiting Academic University Of Bradford, UK

November 2007 - December 2007

Research Assistant, University Of Bradford, UK

April 2003 - March 2008

Seasonal Part-time Computer Engineer, Worldwide PC UK Limited, Bradford, UK

January 2011

Workshop Instructor and Organizer at Meghnaghat Power Limited, Bangladesh

October 2010

Workshop Instructor and Organizer at IEB, Dhaka and BUET, Bangladesh

October 2001

Summer trainee placement from BUET University at TSP Complex Ltd (a company of BCIC) Bangladesh

Technical Member of Petrobangla, Bangladesh to asses the plant production problem

Technical Member, CASE project, Department of Environment, Bangladesh



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▼ Selected Publications

1. I. M. Mujtaba, Salih M. Alsadaie, Mudhar A. Al-Obaidi, Raj Patel, M. T. Sowgath*, and Davide Manca (2017). Desalination: Processes, Technologies, and Challenges. In book: The Water–Food–Energy Nexus. Eds I. M. Mujtaba, R. Srinivasan, N. O. Elbashir.
2. Sowgath, T. M., Mujataba, I.M. (2017) Design of Reverse Osmosis Process for the Purification of River Water in the Southern Belt of Bangladesh. *Chemical Engineering Transactions*. 61: 1159-1164.
3. *Sowgath, T. M., (2015). Minimise the Operation Schedule Time to Meet the Daily Fixed Water Demand of MSF Desalination. *Chemical Engineering Transactions*. 57: 463-468.
4. *Sowgath, M. T., Rahman M. M., Nomany S. A., Sakib M. N., Junayed M. (2015). CFD Study of Biomass Cooking Stove using Autodesk Simulation CFD to Improve Energy Efficiency and Emission Characteristics. *Chemical Engineering Transactions*. 45: 1255-1260.
5. *Sowgath, T. M., Mujtaba I.M. (2015). Meeting the Fixed Water Demand of MSF Desalination using Scheduling in gPROMS. *Chemical Engineering Transactions*. 45: 451-456
6. *Sowgath, M. T., Hossain Z. M., Kawsher S. (2011). Maximising the Heat Content of Sales Gas at Kailashtilla Gas Processing Plant. *Chemical Engineering Transactions*. 24: 313-318.
7. Sowgath, T., Mujtaba I. (2008). "Less of the foul play." *Chemical Engineer*(804): 28-29.
8. Tanvir, M. S., I. M. Mujtaba (2008). "Optimisation of design and operation of MSF desalination process using MINLP technique in gPROMS." *Desalination* 222(1–3): 419-430.
9. Sowgath Tanvir, M. and Mujtaba I. Mohammed (2007). Optimisation of MSF desalination process for fixed water demand using gPROMS. *Computer Aided Chemical Engineering*. P. Valentin and A. Paul Şerban, Elsevier. Volume 24: 763-768.
10. Tanvir, M. S., Mujtaba I. M. (2006). Modelling and simulation of MSF desalination process using gPROMS and neural network based physical property correlation. *Computer Aided Chemical Engineering*. W. Marquardt and C. Pantelides, Elsevier. Volume 21: 315-320.
11. Tanvir, M. S., Mujtaba I. M. (2006). "Neural network based correlations for estimating temperature elevation for seawater in MSF desalination process." *Desalination* 195(1–3): 251-272.

▼ Professional Memberships

- Associate Member of IChemE, UK
- Senior Member AIChE, USA