



Jaideep Talukdar, Ph.D.

Name : Jaideep Talukdar

Designation : Professor

Department : Department of Basic Sciences and Humanities
(JOINED THE INSTITUTE IN 2013)

Contact : 9051419777

Email : jaideep@silicon.ac.in

RESEARCH INTERESTS

- ✓ Gas-Solids Flow systems, Fluidized beds
- ✓ Solar Energy Utilization
- ✓ Chemical Reaction Engineering and Photochemical Processes
- ✓ Heat Transfer and Cooling of Electronic Systems
- ✓ Renewable Energy Technologies
- ✓ Pollution Control Methods

Academic Qualifications

Ph. D. (Engineering), University of New Hampshire, NH, USA, 1993

M. S. (Chemical Engineering) University of New Hampshire, NH, USA, 1986

B.Tech. (Hons., Chemical Engineering) Indian Institute of Technology, Kharagpur,
India, 1983

Teaching Experience:

- Taught undergraduate courses in Engineering Thermodynamics, Environmental Engineering and Basic Mechanical Engineering at Silicon , **2013 till date**
- Taught undergraduate Fluid Mechanics, Heat Transfer and Process Control at UNH (USA) and worked as a teaching and research assistant for a number of chemical engineering courses and projects, **1984 -1994**

Industry/Research Experience:

- G.S. Environmental Associates, Portsmouth, NH, USA, Environmental Consultation including contaminant transport modeling and groundwater supply exploration for various private and government clients **1995-2012**
- Riley Stoker Corp., Worcester, Massachusetts, USA, Pilot plant study and improvements in the design of a circulating fluidized bed (CFB) boiler **1991-1994**
- Solar Energy Research Institute, Golden, CO, USA (US Dept. of Energy Laboratory), Study and design of a titanium oxide catalyst-based solar detoxification system, for the decontamination of trace organic pollutants in water **1988**

PUBLICATIONS**Journal Articles:**

Talukdar, J and S.B. Reddy Karri, "Analysis of the Performance of Non-Uniformly Active Catalyst Pellets for a Non-isothermal Series Reaction", Chemical Engineering Communications, Vol. 52, Issue 1-3, 1987.

Talukdar, J., Wong, E.H., Mathur, V.K., "Caprolactam Production by Direct Solar Flux", Solar Energy, Vol. 47, No. 3, p. 165, 1991.

Talukdar, J., Mathur, V.K., "Residence Time Studies of Fine Particles Circulating Through a Fluidized Bed of "Coarse Solids", AIChE Symposium Series, Vol. 92, 1996.

Talukdar, J. "Teaching of the Scientific Method in High Schools in India", International Journal of Social Science, ND Publishers, Vol 4, Issue 4, Dec. 2015

T.S. Nag and J. Talukdar, "A Preliminary Investigation of Liquid Cooling of an Electronic Chip using COMSOL ", International Journal of Innovations in Engineering and Technology, Vol. 7, Issue 1, June 2016