A MESSAGE FROM THE HOD

The Department of Chemical Engineering at IIT Kanpur ranks among the best of the nation and commands very high level of respect both nationally and internationally. Our department has been built over the years by faculty members, who have always been exceptionally hard-working, highly dedicated to research and committed to provide cutting edge knowledge and rigorous training to their students. We carry out research in core areas such as Fluid Mechanics, Thermodynamics, Separation Processes and Controls as well as inter-disciplinary areas such as Nano Sciences and Technology, Biosciences, Soft Matter Physics, Advanced Materials and High-Performance computing. The academic environment in our department is highly vibrant that nurtures creativity. Our students get to grow in an intellectually stimulating environment where emphasis is not on competition but individual excellence. They continue to excel long after they graduate and distinguish themselves in both academia and industry, in both within the country and abroad.

Animangsu Ghatak
Professor and Head
Dept. of Chemical Engineering
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Chemical Engineering, IIT Kanpur

About US

The Department of Chemical Engineering at IIT Kanpur is ranked among the nation's top schools in Chemical Engineering. Aside from excellence in fundamental research, the department has made significant contributions to the chemical industry through its expertise in chemical process engineering, simulation, optimization and control, polymers, interfacial phenomena and separations. Experimental research in the department is supported by state-of-the-art facilities which include Scanning Tunneling and Atomic Force Microscopes, Ellipsometer, Rheometers, Optical Profilometer, etc.

IIT Kanpur was chosen by the Department of Science and Technology (DST) as one among the five places in India to have operational state-of-the-art Nano-technology centre, which is located in the Department of Chemical Engineering. Under the auspices of the FIST scheme of DST, several new facilities has been established. We take great pride in our alumni, among whom we have recipients of almost all major national and international recognitions: National Science Medal by the President of the United States of America, Membership of National Academy of Science (USA), National Academy of Engineering (USA), National Medal of Technology and Innovation (USA), Infosys prize, Shantiswaroop Bhatnagar prize, TWAS prize and many more.
Student Demographics

B. Tech
- 79 Students
- 4 Year Programme
- Admission through JEE
- Basic Engineering + Departmental Courses
- Undergraduate Projects

M.Tech MS-R
- 32 Students
- 2 Year Programme
- Admission through GATE
- Compulsory Departmental Courses
- MTech Thesis 1.5 Years

B.Tech-M.Tech. Dual
- 6 Students
- 5 Year Programme
- Admission through JEE
- Basic Engineering + Departmental Courses
- MTech Thesis 1.5 Years

PhD
- Admission through written test and interview
- Compulsory Departmental Courses
- Ph.D Thesis work

In addition, the Unit Operations, Process Control & Design Labs and other course projects involving various tools, like MATLAB, COMSOL, ASPEN PLUS, HYSYS and FLUENT, equip the student with sufficient practical skills.

Relevant Courses

Specialization Courses
- Petroleum Refinery Engineering
- Computer Aided Process Control
- Molecular Modeling & Simulation
- Principles of Heterogeneous Catalysis
- The Structure and Rheology of Complex Fluids
- Process Engineering & Optimization
- Chemical Plant Safety & Hazard Assessment
- Process Engineering Principles
- Reaction Engineering of Polymers
- Advanced Fluid Mechanics
- Environmental Pollution: Control & Modelling
- Mechanics of Soft Matter
- Statistical Thermodynamics
- Nano-sciences & Micro-fluids
- Modelling & Simulation of Separation Processes
- Hydrodynamic Stability

Basic Courses
- Thermodynamics
- Fluid Mechanics & its Applications
- Heat Transfer & its Applications
- Mass Transfer & its Applications
- Chemical Process Industries
- Process Dynamics and Control
- Chemical Reaction Engineering
- Biochemical Engineering
- Transport Phenomenon

Laboratory Courses
- Chemical Process Simulation
- Unit Operation and Process Control
- Chemical Engineering Design
Chemineers society is a student body aiming to **promote intellectual and cultural activities** of students of Department of Chemical Engineering, IIT Kanpur, help students identify campus resources, and foster harmonious relationship among students, faculty, staff and administrators. Chemineers activities are useful to **groom student personality** so as to make them responsible citizens dedicated to the development of the nation as a whole.

SimuTech group **conducts various workshop** related to the field of simulation in Chemical Engineering and gives the student an idea of how important are simulations for a chemical engineer. We have till now **conducted workshop on COMSOL, AspenPlus, AspenDynamics and AspenHYSYS**. The group has also offered various **project to students** on topics like **Computational Fluid Dynamics, Heat Exchanger Design and Plant Control and Design**.
Chemical Engineering, IIT Kanpur

Collaborators and Sponsors

State of the Art Facilities

✓ Rheometer, Anton-parr. Rheometer
✓ Polarized Optical Microscope
✓ Micro-PIV
✓ Atomic Force Microscope
✓ Optical Profilometer
✓ Real time PCR
✓ Confocal laser scanning microscope
✓ Atomic Absorption Spectroscopy
✓ Dispersive Raman Spectrometer
✓ Nano Imprint Lithography
✓ HDN, HDS Reactors

and many more..
Past Recruiters

Distinguished Alumni

...and many more
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