Indian Institute of Technology, Kanpur
Student Placement Office

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Placement Brochure (2023–2024)
Ranked among the nation's top schools in Chemical Engineering, the department at IIT Kanpur is endowed with a highly competitive undergraduate program and a vibrant graduate program supported by state-of-the-art facilities and distinguished faculty members with both national and international recognitions. Our department's highly vibrant academic environment nurtures creativity, ethics, and out-of-the-box thinking. The students are guided by exceptional faculty, highly dedicated to research and teaching, and committed to providing cutting-edge knowledge and rigorous training to the students. Our students thus grow in an intellectually stimulating environment where the emphasis is on solving problems, allowing them to learn beyond the disciplinary boundaries. Thus, our alumni have made a remarkable impact in academia and industry. I heartily welcome companies to the campus recruitment at IIT Kanpur and become part of our extended community.
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 Tunnelling and Atomic Force Microscopes, Ellipsometer, Rheometers, Optical Profilometer, etc. IIT Kanpur was chosen by the Department of Science and Technology (DST) as one of the five places in India to have an operational state-of-the-art Nano-technology centre located in the Department of Chemical Engineering. Under the auspices of the FIST scheme of DST, several new facilities have been established. We take great pride in our alums, among whom we have recipients of almost all significant national and international recognitions: National Science Medal by the President of the United States of America, Membership of the National Academy of Science (USA), National Academy of Engineering (USA), National Medal of Technology and Innovation (USA), Infosys prize, Shanti Swaroop Bhatnagar prize, TWAS prize and many more.
**STUDENT DEMOGRAPHICS**

**B.Tech**
- 108 students
- 4-year program
- Admission through JEE
- Basic engineering & departmental courses
- Undergraduate projects

**M.Tech & MS(R)**
- 49 students (42 + 7)
- 15+1 female candidates
- 2-year program
- Admission through GATE
- Compulsory departmental courses & electives
- 1.5 years thesis

**Dual Degree**
- 18 students 5-year program
- Admission through JEE
- Basic engineering & departmental courses.
- 1.5 years thesis

**Ph.D**
- 23 students
- Admission through written test and interview
- Compulsory departmental courses & electives
- PhD thesis
Laboratory Courses

- Chemical Process Simulation
- Unit Operation and Process
- Control Laboratory Courses
- Chemical Engineering Design

Fundamental 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
- Chemical Engineering Design
- Applied Numerical Methods in Engineering

Specialization Courses

- Petroleum Refinery Engineering
- Computer Aided Process Control
- Molecular Modelling & Simulation
- The Structure and Rheology of Complex Fluids
- Process Engineering & Optimization
- Chemical Plant Safety & Hazard Assessment
- 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

In addition to the Unit Operations & Process Control lab and Design Lab, course projects involving various tools, like MATLAB, COMSOL, ASPEN PLUS, HYSYS, & FLUENT, equip the students with sufficient practical skills.
Departmental Activities

Chemineers society

- A student body aiming to promote intellectual and cultural activities of students of the Department of Chemical Engineering, IIT Kanpur.
- Helps students identify campus resources and foster harmonious relationships among students, faculty, staff, and administrators.
- The activities aim to groom student personalities to make them responsible citizens dedicated to the nation’s development.

SimuTech group

- Conducts group workshops and offers projects related to the field of simulation in Chemical Engineering to students.
- Workshops introduce simulation and modeling softwares like Aspen Plus, Aspen Dynamics, Aspen HYSYS, and COMSOL.
- The group offers various projects with students on topics like Computational fluid dynamics, Computational heat transfer, Modelling of chemical reactors, and Plant control and design.
Past recruiters
Our Distinguished Alumni

Smt. Vartika Shukla  
Chairperson & Managing Director  
Engineers India Limited (EIL)

Dr. Ashutosh Sharma  
Former Secretary DST  
Government of India

Mr. Nitash Balsara  
Faculty Senior Scientist  
University of California, Berkeley

Dr. Rakesh Agrawal  
Professor Purdue University

Dr. Kamal Kishore Sharma  
Vice Chairman Lupin Limited

Dr. Rakesh K. Jain  
Professor, Tumor Biology  
Harvard Medical School

Mr. Jagjeet Singh Bindra  
Former president  
Chevron Global Manufacturing

Dr. Ashok Mishra  
Former Director IIT Bombay

Dr. Santosh K. Gupta  
Distinguished Professor  
UPES, Dehradun

Mr. Kushal Chand Sacheti  
Founder and CEO Galaxy, USA, Inc

Dr. K. Vijay Raghavan  
Principle Scientific Advisor  
Government of India

Mr. Hemant Jalan  
Founder Indigo Paints

and many more...
Collaborators and Sponsors

We Collaborate with

- Department of Biotechnology, Government of India
- Department of Science and Technology, Government of India
- Dr. Reddy’s
- HP
- TEPL
- UPL
- Sterlite
- SAINT-GOBAIN
- TCS
- Hindustan Unilever Limited
- TRANS-INTEGRA
- Shell
State of the Art Facilities

- Rheometer
- Polarized Optical Microscope
- Micro PIV
- Atomic Force Microscope
- Optical Profilometer
- Real time PCR
- Atomic Absorption Spectroscopy
- Confocal laser scanning microscope
- Dispersive Raman Spectrometer
- Nano Imprint Lithography
- 3D Bioprinter
- ICP Mass Spectrometer
- Surface Area Analyzer
- Universal Testing Machine
- Temperature Programmed Reduction

And many more...
**Faculty list and Expertise**

**Dr. Vishal Agarwal**
- Catalysis, Biofuels, Nuclear, Gas-Surface and Liquid Surface Interactions, Molecular Simulation.

**Dr. Pankaj A. Apte**
- Statistical Mechanics, Interfacial Thermodynamics, Phase equilibria and nucleation.

**Dr. Goutam Deo**
- Catalysis and reaction engineering,Supported catalysts, Reaction kinetics.

**Dr. Sanjeev Garg**
- Bioinformatics, Bioremediation, RNA Interference, Computer Aided Product and Process Design, Flexibility Analysis of Chemical and Biological Systems

**Dr. Animangsu Ghatak**
- Adhesion and friction on soft interfaces,Fracture of soft thin sheets,Bio-inspired approaches in design of engineering material.

**Dr. Raj K. Gupta**
- Photocatalysis, Green synthesis of nanomaterials, Surface chemistry, High dielectric constant materials, Perovskite solar cells, Supercapacitors.

**Dr. Yogesh M. Joshi**
- Rheology, Polymer science and engineering and Fluid mechanics.

**Dr. Nitin Kaistha**
- Process modeling, Simulation and control, Plantwide control system structure synthesis, Control of reactive distillation columns.

**Dr. Harshwardhan H. Katkar**
- Soft matter, Biophysics, Nanopores, Bacterial Assemblies, Fluid Mechanics, Multiscale modeling, Bottom-up coarse-graining, Enhanced sampling.

**Dr. K. P. Krishnaraj**
- Flow, structure and stress transmission in granular media, structure and transport in spatial networks.

**Dr. Nishith Verma**
- Adsorption, Synthesis of nanomaterials including adsorbents and catalysts, Environmental pollution control (air/water purifications).

**Dr. Rahul Mangal**
- Polymer physics, colloids, complex fluids, nanocomposites, active matter, liquid crystals.

**Dr. Raj Ganesh Pala**
- Electrochemical and reaction engineering, Sustainable energy and environment, Photoelectrochemical systems, CO2 Capture.

**Dr. Ishan Bajaj**
- Process systems engineering, Nonlinear optimization, Technoeconomic and life-cycle analyses, Energy system modeling, Operations research.

**Dr. Siddhartha Panda**
- Chemical sensors, Lab-on-a-chip, Micro/nano fabrication, Microfluidics, Materials processing for microelectronic and display technologies.

**Dr. Dipin S. Pillai**

**Dr. Raghavendra Ragipani**
- Carbon dioxide capture and mineralization, Resource recovery and solid waste utilization, Sustainable process engineering.

**Dr. Indranil Dalal Saha**
- Modeling and simulation of the dynamics of polymer chains in flow, Mesoscale and molecular dynamics simulations.

**Dr. V. Shankar**
- Stability of fluid flows, Rheology of complex fluids.

**Dr. Ashutosh Sharma**
- Confined Soft Materials, Nanomechanics, Mesos-Patterning, Colloids and Interfaces, Wetting and Adhesion, Functional Interfaces.

**Dr. Himanshu Sharma**
- Flow through porous media, Enhanced oil recovery, Colloids & interfaces, Nanotechnology.

**Dr. Jayant K Singh**
- Thermodynamics, Selective adsorption and separation, Energy storage materials, Wetting transition, Self assembly and crystallization at nanoscale.

**Dr. Raghvendra Singh**
- Signal transduction, Systems biology, Biophysics.

**Dr. Sri Sivakumar**

**Dr. Naveen Tiwari**
- Transport Phenomena, Instabilities in micro-scale free surface flows, Flow through porous media.

**Dr. Anurag Tripathi**
- Modelling and simulation of complex fluids, Rheology and segregation of granular mixtures, Wet granular flows.

**Dr. Akash Choudhary**
- Complex fluids and flows, Active Colloids & Biological Microswimmers: Dynamics & Rheology, Microfluidics, Electrokinetics.

**Dr. Soumik Das**
- Chemical sensors, Lab-on-a-chip, Micro/nano fabrication, Microfluidics, Materials processing for microelectronic and display technologies.
Contact Us

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