



DEPARTMENT OF CHEMISTRY

Indian Institute of Technology, Kanpur.



The Department of Chemistry, Indian Institute of Technology Kanpur is one of the premier departments in the country today. The strength of the department has been and continues to be excellence in research and teaching. The faculty of the department is extremely well qualified, and motivated with a strong commitment to teaching and research. The commitment to research is reflected in the large number of projects sponsored by the Ministry of Human Resources and Development, Department of Science and Technology, Department of Atomic Energy, Department of Space and Council of Scientific and Industrial Research.

The alumni of the Department occupy high positions in industry and academia, in India and abroad. Their accomplishments have been outstanding and reflect on the quality training imparted at the undergraduate and graduate level.

CONTACTS

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Department Placement Coordinator

M. Sc Integrated 5th year

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DEPARTMENTAL ELECTIVES

- ORGANIC PHOTOCHEMISTRY
- ELECTROLYTIC REACTIONS
- CHEMICAL THERMODYNAMICS
- SOLID STATE CHEMISTRY
- QUANTUM CHEMISTRY
- LIGAND FIELD THEORY
- PHYSICAL PHOTOCHEMISTRY
- MOLECULAR SPECTROSCOPY

INTER-DISCIPLINARY ELECTIVES

- COMPUTER AIDED MANUFACTURING
- THERMODYNAMICS
- THEORY OF COMPUTATION
- COURSES ON ECONOMICS
- COURSES ON DESIGN
- SIGNAL PROCESSING
- COURSES ON PSYCHOLOGY, PHILOSOPHY, SOCIOLOGY AND ART

Students are taught strong basic mathematics and physics. They take courses in engineering, management, economics and humanities. Students participate in framing and carrying the projects and learn to work and manage teams. Extra-curricular activities of the students include organization and execution of sports, cultural and technical events like Udghosh , Techkriti , Antaragni , which help them to develop their overall personality.

AREAS OF RESEARCH

Organic Chemistry

- Synthetic Organic Chemistry
- Drug Design and Development.
- Biochemistry and microbiology
- Nucleobase assemblies: Crystals and catalysis

Inorganic

- Bimetallic Synergism
- Metal-Ligand Cooperativity
- Supramolecular chemistry of cryptands
- Organometallic Chemistry
- Metal clusters-supramolecular chemistry
- Inorganic Synthesis and Biomimetics

Physical

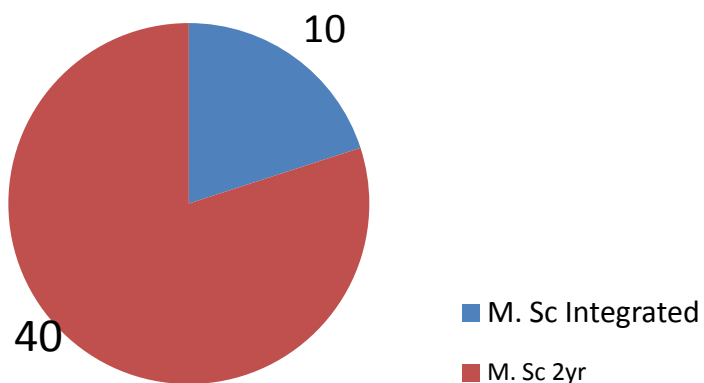
- Statistical mechanics of molecular liquids, soft condensed matter and interfaces
- Electron densities in position and momentum spaces
- Femtosecond Pulse Shaping
- Molecular force fields and Vibrational Spectroscopy
- Organic Light Emitting Diodes
- Molecular reaction

FACILITIES:

- Micro-analytical facility
- Analytical NMR (JEOL-60)
- High Field NMR (JEOL-400)
- UV/VIS spectrophotometer
- IR spectrophotometers (ordinary and FT)
- HPLC and other chromatography
- Electrochemical setup for cyclic voltametry
- Mossbauer spectrometer
- Nanosecond single photon counting fluorimeter
- Spectrofluorimeter
- Ultra-centrifuge
- Magnetic susceptibility measurement instrument
- Light Scattering Photometer

Student Profiles

Students Distribution



ACADEMIC PROGRAMMES

M. Sc Integrated (5 YEARS)

SELECTED THROUGH *JEE*

- Basic Science Courses
- Compulsory Departmental Courses
- Electives (PG & UG)
- M. Sc project

M. Sc (2 YEARS)

SELECTED THROUGH *JAM*

- Compulsory Departmental Courses
- PG electives
- M. Sc Project

Internships:

Undergraduate students go for summer and winter internships after their 3rd year. This provides them with an opportunity to experience the latest scientific technology

Academic Internships:

- Duke University, USA
- Dalhousie University
- École Centrale De Paris
- National University of Singapore
- Ecole Polytechnique du Montreal, Canada
- TU Darmsatdt, Germany
- IISER Mohali
- IISc Bangalore

Industrial Internships

- Reckitt Benckiser
- ACC Limited
- Riken Labs
- Dr Reddy's
- Ranbaxy

Few Past Recruiters

