



Centre for Career Development,
Indian Institute of Technology Guwahati

**Placement
Brochure**

Class of 2024

Bachelor of Technology
Master of Sciences
Doctoral in Chemistry

**Department
of Chemistry.**

Message from Head of the Department

PROF. ADITYA NARAYAN PANDA

Greetings from the Department of Chemistry,
IIT Guwahati.

The Department of Chemistry in IIT Guwahati has been one of the preferred destinations for students aspiring to become scientists and technologists in various domains. The department from 1994 has attracted the finest of faculty members in various research areas, and these faculty members are the experts now in their domain getting laurels for their achievements in their respective fields. The department offers four-year B.Tech. (B.Tech. In Chemical Science and Technology), two-year M.Sc. in Chemistry and Ph.D. programs. The curriculum of B.Tech. in CST encompasses various theoretical and technological aspects of chemistry and related areas, and prepares them to meet the challenges ahead in various fields. This has resulted in very good placement for the candidates. In the last two placement seasons, the department has been able to secure placements for 87% and 83%, respectively, for the students. The course curriculum, in addition to effort put in by the faculty members and students, has resulted in this percentage of placements.

With the above note, I warmly welcome all our partners and perspective employers to our campus to participate in the placement process and help our students to become professionals.

Prof. Aditya N. Panda
HoD, Chemistry



About The Department

Chemistry is one of the eleven departments at the Indian Institute of Technology Guwahati. The Department started in 1995, covers all the major areas of Chemistry, viz. inorganic, organic, physical and theoretical chemistry. In addition to teaching chemistry courses to the undergraduate students of B.Tech in Chemical Science and Technology (CST) & advanced chemistry courses to the students of M.Sc. and the research scholars intending to do Ph.D. The department is actively engaged in research in the frontier areas of topical importance. The faculties are actively involved in sponsored research projects.



Undergraduate Programme (B.Tech)

A four year Bachelor of Technology (B.Tech) programme in Chemical Science and Technology, the first of its kind in the IIT system, is being offered by the Department of Chemistry at IIT Guwahati from the year 2007. This programme will prepare the students for the emerging need of qualified persons with adequate knowledge in both Chemistry and its technology related issues, in both academics and industry. It will also provide students practical training in basic science and engineering. The technological course components include applied catalysis, drug design, medicinal chemistry, nanomaterials and nanoscience, fine and bulk chemicals, green chemical and technological practices. During the course, the students will be trained to do frontline research in interdisciplinary areas, which include materials science, environmental science and molecular biology.

Postgraduate Programme (M.Sc.)

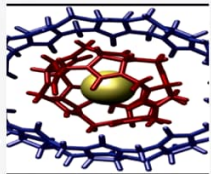
The Master of Science and other post-B.Sc. programmes at the IITs offer high quality post-graduate education in respective disciplines, comparable to the best in the world. The current pace of advancement of technology needs a coherent back up of basic science education and research. The vibrant academic ambience and research infrastructure of the IITs motivate the students to pursue R&D careers in frontier areas of basic sciences as well as interdisciplinary areas of science and technology.

Doctoral Degree Programme (Ph.D.)

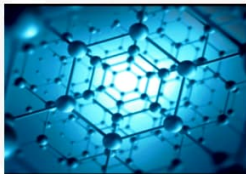
The Department offers Post Graduate programme (Ph.D.) in various research field. The diversified research fields include Organic Chemistry, Inorganic Chemistry, Biological Chemistry, Physical Chemistry, Theoretical Chemistry, and Material Chemistry.



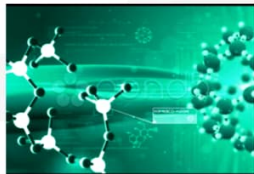
AREAS OF RESEARCH



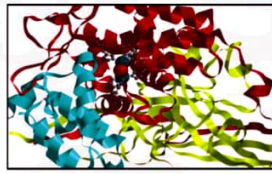
Supramolecular chemistry



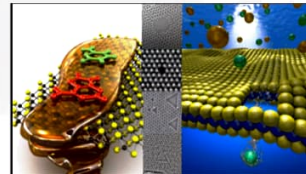
Nano Science and technology



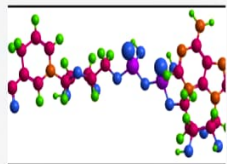
Bio organic chemistry



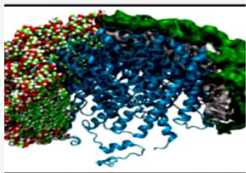
Bio inorganic chemistry



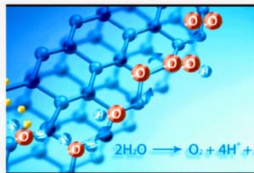
Nanofluids



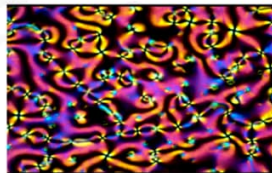
Polymer synthesis



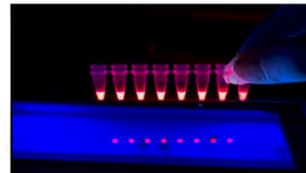
Computational Biophysics



Water Oxidation Chemistry



Liquid Crystals



Fluorescence Spectroscopy

About The

Labs and Facilities

Analytical Instruments

Liquid Chromatograph

Mass Spectrometer (LC/ MS)

Thermogravimetric/ Differential scanning calorimetry Analyser

Differential Scanning Calorimeter

Ion Meter

Gas Chromatograph

High-pressure Liquid Chromatography

Medium-pressure Liquid Chromatography

Magnetic Balance

Electrochemical Analyser

GC-Mass Single Crystal X-Ray diffractometer(CCD)

Polarimeter

Elemental analyser

Flash Chromatograph

X-Ray Crystallographic Facility

Bruker Nonius Smart Apex II

X-ray Single crystal diffractometer (CCD)

Bruker X-ray Powder diffractometer



Spectroscopy

Bruker 400 MHz NMR spectrometer under MHRD-FAST COE program

FTIR (two) UV-Vis (eight)

Fluorimeter(two)

Fluro Cube

Miscellaneous

Miscellaneous INVERTED LED MICROSCOPE FOR BRIGHTFIELD, DIC,
LED FLUORESCENCE WITH 5MP CCD CAMERA.

IMAGING SOFTWARE AND COMPUTER Make: Nikon, Model: ECLIPSE Ts2R-FL Automatic
Potentiometric Titrator, Make: Metrohm AG

Chemdraw Professional 17 academic site license for three (03) years for MS
Windows Internet Download edition (v)

High Speed Refrigerated Centrifuge, Make: HERMLE, Model: Z 36 HK Langmuir-
Blodgett Film maker

Cryocoolers

Glove box



About The Research

- Coordination and supramolecular chemistry of aromatic N-oxides.
- Newer Synthetic Methodologies in Carbohydrate Chemistry and Facile Access to N-Heterocycles Using Multi component Reactions.
- Study of Intramolecular C-N, C-O and C-S Cross-Coupling Reactions and Application of Self-Assembled Chiral Copper(II) Complexes for Asymmetric Acylation Reaction

Sponsored Projects

With over 30 ongoing projects sponsored by major organizations, institutions and agencies like CSIR, DST, BRNS, DRDO, SERB, DAE, CDRI and Alexander von Humboldt Foundation Germany, the department has churned out over 130 publications last year alone in almost all major journals of the world. Some of our ongoing projects include:

- Desulfurization and Denitrogenation of Diesel (IOCL sponsored project) Generation of Conducting Polymer Films, Fibers and Composite (DST sponsored project)
- Synthesis of Novel Conducting Polymers for application in Organic Light Emitting Diodes (DST sponsored project)
- Development of Metallo-supramolecular polymers (DST sponsored project)
- Unsupported Membranes: A Simple Approach (CSIR sponsored project)
- Nanolithography in color and design of microfluidic devices (DST sponsored)
- β Breaker di-peptides: development of a novel approach for amyloid disruption (BRNS sponsored)
- Multilayer of Porous Micro-Capsules to Develop Robust Slippery Liquid-Infused Porous Surface (SLIPS)
- Physically and Chemically Durable Bulk Superhydrophobic Material: An Avenue for Smart Drug Delivery



About The Courses

Departmental Elective

- Quantum Molecular Dynamics
- Medicinal Chemistry
- Drug Design and Development
- Organometallic Chemistry
- Biological Chemistry of Metal Ions
- Consumer Chemistry
- Green Chemistry and Technology

Open Elective

- Petroleum and Petrochemicals
- Chemical Approaches to Nanoscale Science and Technology
- Application of Statistical Mechanics to Chemistry

Pre-final Year

- Computational chemistry
- Applications of Nanomaterials
- Frontiers of coordination chemistry
- Chemical kinetics and electrochemistry
- Polymer chemistry
- Environmental chemistry
- Technical report presentation
- Inorganic chemistry lab
- Physical chemistry lab

Final Year

- Modern chemical technology
- BTech project
- Department electives
- Open elective
- HSS elective

M.Sc.

- Thermodynamics
- Bio-Inorganic Chemistry
- Bio-Organic Chemistry
- Pericyclic Chemistry
- M.Sc. Project
- Department Electives
- Inorganic chemistry
- p and d-block Chemistry
- Principles of Organic Chemistry
- Quantum Chemistry
- Group Theory and Spectroscopy
- Physical Chemistry Lab
- Computers and Chemistry
- Inorganic Reaction mechanism and Organometallics
- Organic Reaction mechanism
- Chemical dynamics and Electrochemistry
- Application of Spectroscopy
- Organic chemistry lab

About

Bachelor in Chemical Science and Technology

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No. of Students : 55

About

Masters in Chemistry

The Master of Science and other post-B.Sc. programmes at the IITs offer high quality post-graduate education in respective disciplines, comparable to the best in the world. The current pace of advancement of technology needs a coherent back up of basic science education and research. The vibrant academic ambience and research infrastructure of the IITs motivate the students to pursue R&D careers in frontier areas of basic sciences as well as interdisciplinary areas of science and technology.

Thesis Project

During the course of four semester The Master's program cover two thesis, a major and a minor. The Master's thesis is a year long project completed in two semesters. It enables the students to research, analyse and provide solution in the field of ____.

No. of Students : 59

Summer Internship and Project Collaborations

An important aspect of the design program is industrial and professional experience and research through internships in various industries, companies and universities both in India and abroad.

Academic Internships

MIT Media Labs
Carnegie Mellon University
Northeastern University
University of British Columbia
Hanyang University
Boston Arizona State University
KAIST
University of Ghent
TU Berlin
TU Delft
Carleton University
Canada Karlstad University
Sweden EPFL
Middlesex University

DE Shaw & Co

Google

ORACLE

Adobe

McKinsey
& Company

CISCO

Infosys

sprinklr

amazon

salesforce

J.P.Morgan

Microsoft

SAMSUNG

NUTANIX

IBM

Uber

accenture

Schlumberger

Razorpay

sas

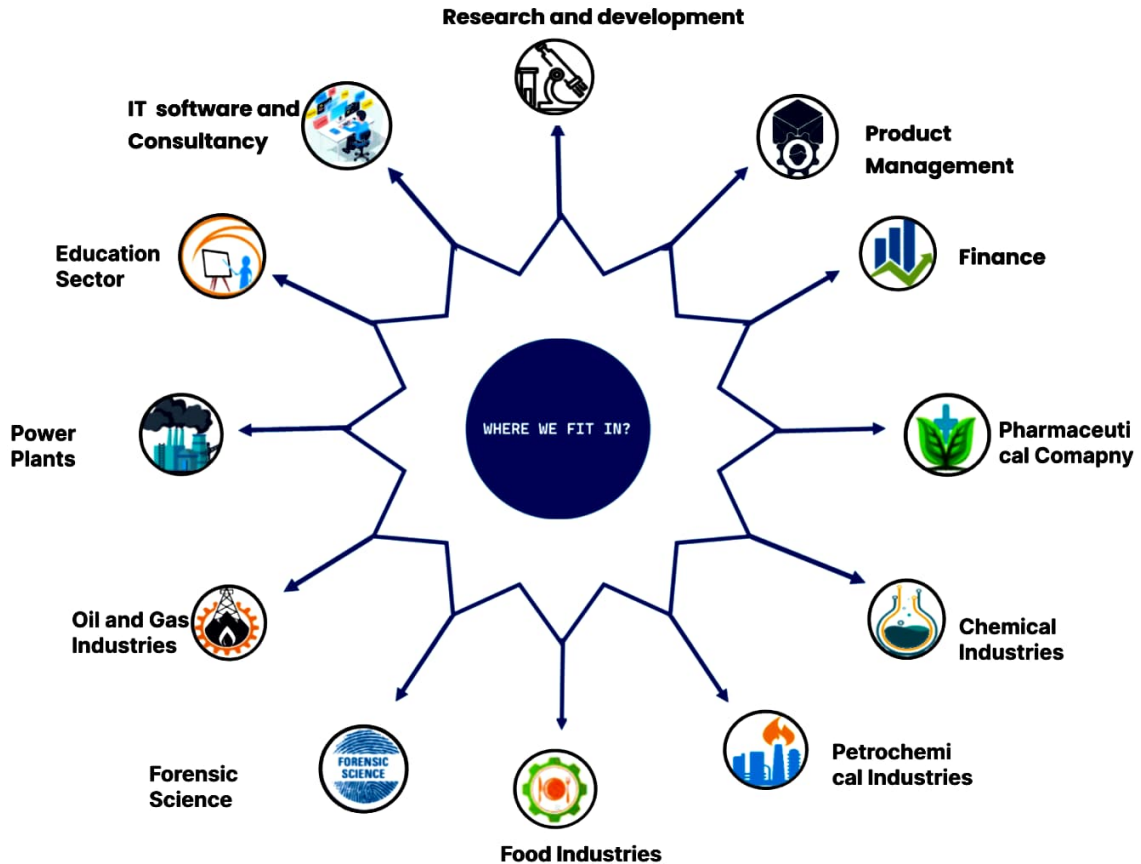
PAST RECRUITER



PAST RECRUITER



And Many More
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About CCD – Centre for Career Development

Roles & Responsibilities

The Centre for Career Development at IIT Guwahati handles all aspects of campus placements for graduating students. The cell is responsible for mediating between the company and the students. Arrangements for every stage of the recruitment process are made by officials at the office. The Head, CCD in consultation with the student coordinators oversee all placement related activities at the institute. CCD coordinates with recruiting companies and handles the entire internship hiring and on campus recruitment process. The scheduling process is handled accommodating both the needs of the students and the department to ensure that the recruitment process is carried out in the most comfortable and satisfying manner possible.

Training Initiative

Centre for Career Development also takes the responsibility of training the students of the Institute and strengthening their concepts by building on the fundamental principles while also accommodating the needs of the industrial market within realistic constraints such as economic, environmental, social, health and safety. The Centre ensures complete revision of basic concepts so that students can identify, formulate and solve engineering problems with the understanding of professional and ethical responsibility. CCD also organizes regular training sessions for students on soft skill development.

Facilities

The office has excellent facilities and infrastructure for placement activities, which include: a) Online Platforms for Interviews b) Registration portal for Companies & Students c) Institute auditorium, Lecture Halls for Pre-placement talks and tests d) Computer Centre and Departmental Labs for written and online tests e) Video Conference Facilities including Skype interviews*

Contact Us

We are looking forward to have you on our Campus

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