

Chemical Engineering

Placement Brochure

2019-2020



Indian Institute of Technology
Patna



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Message from HOD



Dr. Nitin Dutt Chaturvedi

Assistant Professor

Department of Chemical Engineering

IIT Patna

It gives me great pleasure in inviting you to the Placements for the B.Tech. (Chemical Engineering) students at the Department of Chemical and Biochemical Engineering, IIT Patna. The department provides and ensures an academic and research environment, which is highly conducive to preparing professionals who are self-motivated, independent and clear thinking individuals capable of handling the challenges associated with the multidisciplinary nature genuinely committed to their specialization. They also have skills and traits that are methodically cultivated during their stay at the institute. The Chemical Engineering curriculum has been designed in such a fashion that it yields a skill-set that has optimal compatibility with the competency set anticipated by employers in chemical and related industries.

In addition to academics, the department encourages a variety of co-curricular activities that are managed by students themselves with due support of faculty members. They are motivated to take part in a number of competitions and activities.

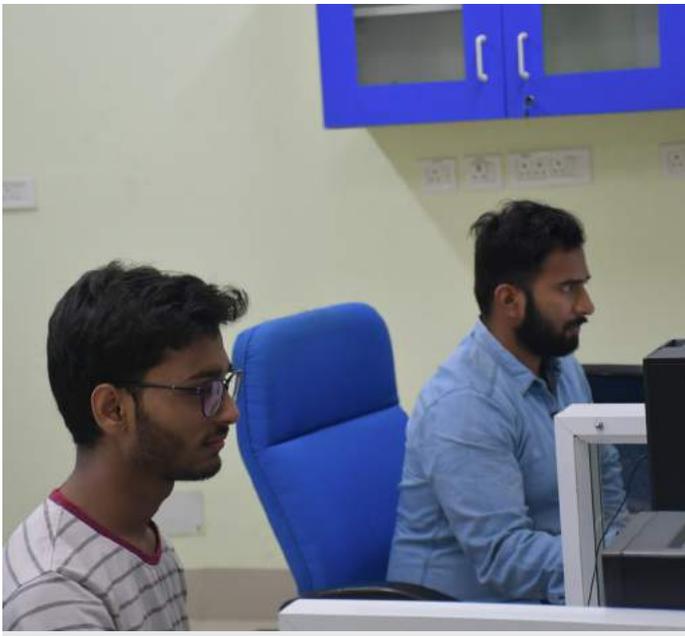
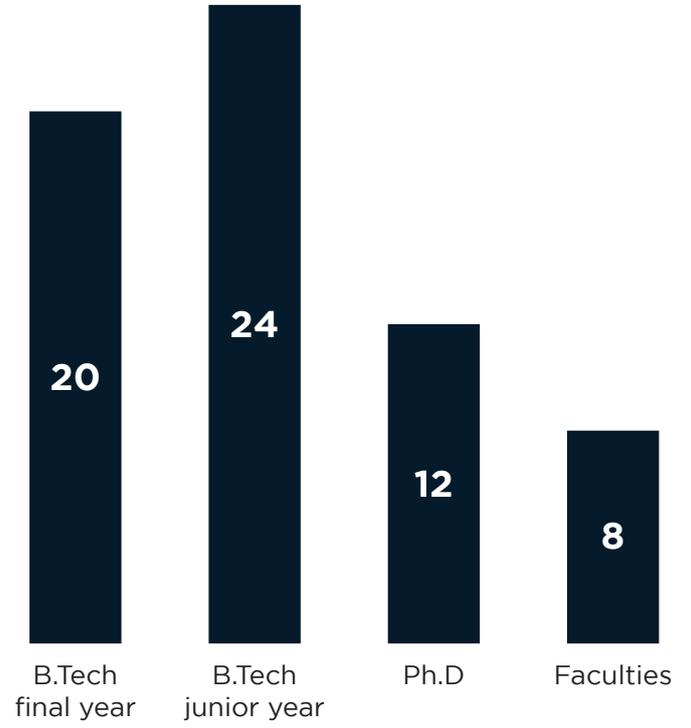
I am delighted to present the current batch of Chemical Engineering B.Tech. students. They are intelligent and academically robust. Their varied skill-set and work experience will give you diverse options as you pursue intellectual young men and women to join your esteemed organization. I am confident that students selected from our department will perform as per the expectation and satisfaction of the employers.

Department and Demographics



The Chemical and Biochemical Engineering department of IIT Patna was initiated in the year of 2013 and the B.Tech. program in Chemical Engineering commenced in the year 2016. Within the short duration since inception, the department has steadily grown in facilities, including teaching and research laboratories, and the number of faculty and students. The department has credible research output in terms of journal publications, external research funding, and collaborations. With the first batch of undergraduate students graduating in 2020, the department is looking forward to good placement record too. The students have been trained well in both technical and

soft skills keeping their employability in focus. Every UG student in the department has undergone summer-internship to earn them valuable experience that will help them select their career path. Unique from other UG programs, internships, industrial visits, and talks by experts have been part of the B.Tech. Chemical Engineering curriculum to ensure that they are exposed to the numerous opportunities in chemical and allied industries. Similarly, the final year projects have also been spread across industrial and research topics to provide the students with a flavour of project implementation where they implement classroom-knowledge in real-world scenarios.



B.Tech Curriculum

1st semester

Engineering Drawing
Electrical Sciences
Communicative English for Engineers
Mathematics - I
Workshop-I
Physics - I
Physics Laboratory

2nd semester

Biology and Environmental Studies
Introductory Chemistry
Chemistry Laboratory
Programming and Data Structures
Programming and Data Structures Laboratory
Basic Electronics Laboratory
Mathematics - II
Engineering Mechanics

3rd semester

Mathematics - III
Chemical Process Calculations
Fluid Mechanics
Mechanical Operations
HSS Elective - I

4th semester

Heat Transfer
Mass Transfer - I
Chemical Engineering Thermodynamics
Process Equipment Design - I
Mechanical Operations and Fluid Flow Lab
Open Elective-I
HSS Elective -II

5th semester

Chemical Reaction Engineering
Mass Transfer - II
Chemical Process Technology
Process Equipment Design - II
Mass Transfer Lab
Heat Transfer and Thermodynamics Lab
Open Elective-II

6th semester

Chemical Reactor Design
Chemical Process Modelling and Simulation
Departmental Elective -I
Chemical Process Simulation Lab
Process Control and Instrumentation
Chemical Reaction Engineering and
Environmental Engineering Lab
HSS Elective - III

7th semester

Transport Phenomena
Summer Training
Process Control Lab
Open Elective - III
Process Plant Design and Economics
Grand Viva
Project-I

8th semester

Departmental Elective -II
Departmental Elective -III
Departmental Elective -IV
Project-II

Facilities and Resources

Research Equipments

- In-situ FTIR(Mid IR)
- Gas Chromatograph
- LC-MS/MS
- UV -Visible Spectrophotometer
- Microplate Reader
- Fluorescence Microscope
- Algal Growth Chamber
- Ultrasonic Microwave Reaction System
- Furnace
- Other standard laboratory equipment including analytical meters, ovens and incubators, centrifuges, pumps, etc.



Computer Facilities

- Dedicated simulation laboratory in department
- Linux Cluster
- ASPEN, MATLAB, ANSYS softwares

Department Library

- Adequately furnished and equipped with books

UG & PG Laboratories

- Unit Operations and Fluid Flow Lab
- Heat and Mass Transfer Lab
- Chemical Reaction Engineering Lab
- Biochemical Lab
- Chemical Process Simulation Lab
- Process Control Lab



Co-curricular Activities

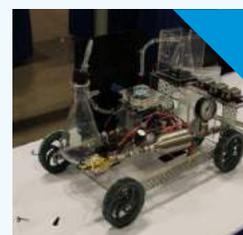
The department promotes multidisciplinary and high quality education and research in Chemical Engineering by encouraging participation of students in various activities, workshops and competitions. Owing to this, our students are skilled in various domains across different fields.

- Experimental and Modeling and Simulation-based Research
- Quantitative and Systems Biology
- Applied Data Science, Machine Learning and Blockchain
- Web and Mobile Application Development
- Marketing and Business Development
- Educational Instructors (eg. Unacademy)



Chem-e-car

Our department students actively participate in designing and building a small-scale automobile that operates by chemical means. The purpose of Chem-e-Car is to enhance the experimental knowledge of the students. The previously built car model derived power from thermoelectric generators and the stopping mechanism was based on the iodine clock reaction.



Departmental Magazine

Our department students have designed and released twelve issues of a magazine named 'Tribune' which covers various research in chemistry and chemical engineering conducted across the globe, recruitment process for major chemical companies of India, Nobel Prize winners in Chemistry, department club's events during college fests, internship experience of department students and many more captivating stuff.



Inter-IIT Tech Meet

Our department students have also participated in events conducted in Inter IIT Tech Meets which occurs annually. Dheeraj Kalani lead a group to Tech Meet 2019 which developed smart prototypes that could reduce various forms of energy wastage. Aswin Krishna represented IIT Patna at the previous edition in an astronomical event of Messier marathon.





Chessx Society

Chemical engineering is a highly open-ended and flexible area of study with branches extending to economics, biotechnology, electronics, policy-making and much more. The CHESsx society is aimed at providing the right support to produce the best chemical engineering graduates of tomorrow. It promotes interaction within the department and implements academic, social and other programs of interest to its members.



Industrial Visit

Students actively participate in industrial visits to supplement and enhance theoretical knowledge and to get first-hand experience on industrial challenges and latest technology coming up in the industries. Past industrial visits include a visit to Indian Oil Corporation Limited (IOCL), Barauni.



Representing IIT Patna all over the country and abroad



Academic Internships

भारतीय IIT BHU संस्थान दिल्ली
INDIAN INSTITUTE OF TECHNOLOGY DELHI

IIT Bombay

IIT Delhi

IIT Gandhinagar

IIT Ropar

IIT Guhawati

IIT HYDERABAD

IISc Bangalore

IISER Bhopal

ICT Mumbai

IIM Bangalore

Hebrew University of Jerusalem, Israel

NTU Singapore

EPFL Switzerland

NTHU Taiwan

Industrial Internships

IOCL

IFFCO

TATA Steel

TCS Innovation Labs

EDVIZO

Kreed On

Flinkhub

Stoned Santa

Digiledge

Crofarm

Dipitr

Xencov Software

Feasopt.ai

Extra-curricular Activities

S Sports

E Entrepreneurship

C Cultural

R Rural Development



Sports Club

The sports club IIT Patna brings the most talented sportsmen to light, the best among them represent IIT Patna in inter IIT sports meet. 9 students from our department had participated and Raghav Heda was the captain and coordinator of Basketball club.



Cultural Committee

The cultural committee House of Socio-Cultural Affairs (HoSCA) organizes and promotes various cultural activities in music, dance, dramatics, photography, fine arts, etc. From our department, Yash Choudhary was the coordinator of Music club and Fine arts club and Parth Patel was the coordinator of Photography Club.



Entrepreneurship Cell

The entrepreneurship cell (e-cell) at IIT Patna was setup with a vision to create a gelling point for aspiring entrepreneurs in the institute by educating the students about the nuances involved in business and entrepreneurship. Ayush Inani from our department was the overall coordinator.



Rural Technology Development Club

The aim of Rural Technology Development Club (RTDC) is to identify problems prevailing in the rural areas and to work to develop technologies and devices to address them. Aswin Krishna from our department was among the coordinators of RTDC.

Events



Anwasha

'Anwasha', which gets its name from the Sanskrit metaphrase for 'expedition', is IIT Patna's annual 3-day techno-cultural festival organised by the student community. Anwasha today is a conglomeration of events that draw from diverse disciplines, ranging from the engineering sciences to the visual & performing arts. Yash Choudhary, Ayush Inani and Parth Patel were the part of core committee of Anwasha from our department.

Celesta

IIT Patna each year celebrates its Technical Fest, 'CELESTA'. This is a great beginning, which strives to inculcate interest in young minds to pursue technology and make it their passion. Sangeeth Mukundan was a part of core committee of Celesta from our department.



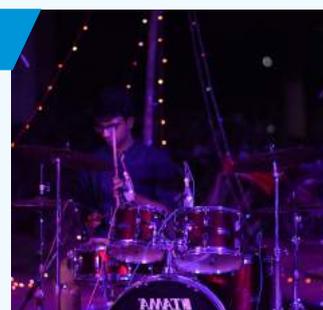
Infinito

Infinito is the annual sports festival of IIT Patna. It is a student organized fest which has seen an exponential growth in just 2 years, and aims for a lot more in the coming years. As manifested in the name itself it's for the people with infinite energy, enthusiasm, zeal to play. Nishant Kulshrestha was a part of core committee of Infinito from our department.



Reverberance

It was started in 2008 and since then it has gained unmatched popularity. It is a cultural celebration held around 'Diwali'. Beautiful decoration through lights added with fantastic cultural performances makes IIT Patna really reverberate with joy during the 'Reverberance'.



Contact Us

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