INDIAN INSTITUTE OF TECHNOLOGY PATNA

CHEMICAL ENGINEERING

PLACEMENT BROCHURE 2021-22

+91-6115-233 091/083 | tpc@iitp.ac.in

CONTACT us :- www.iitp.ac.in/placement

OUR VISION

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.

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 flavor of project implementation where they implement classroom knowledge in real-world scenarios.

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Message from the HOD

DR. NITIN DUTT CHATURVEDI

HOD Department of Chemical and Biochemical Engineering

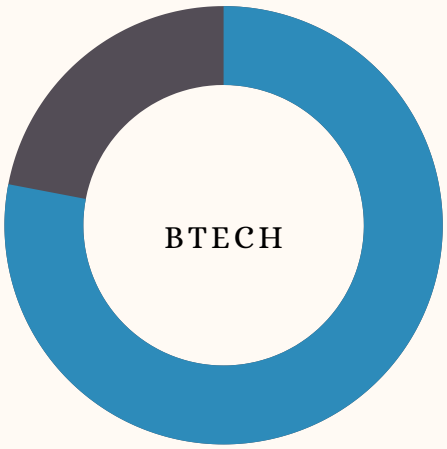
Dear Recruiters,

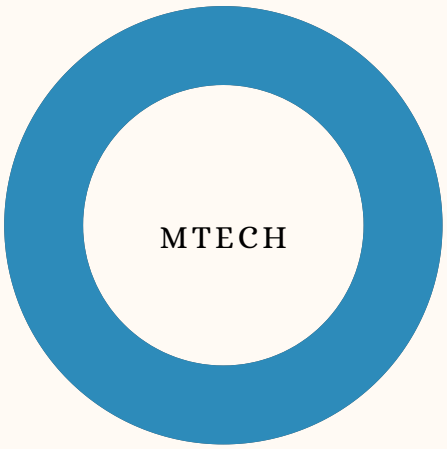
It gives me great pleasure in inviting you to the Placements for the B.Tech. (Chemical Engineering) students at the Department of Chemical and Biochemical Engineering, IIT Patna. The department provides and ensures an academic and research environment, which is highly conducive to preparing professionals who are self-motivated, independent, and clear thinking individuals. They become 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 curriculum has been designed in such a fashion that it yields a skillset that has optimal compatibility with the competency set, anticipated by employers in chemical and related industries.

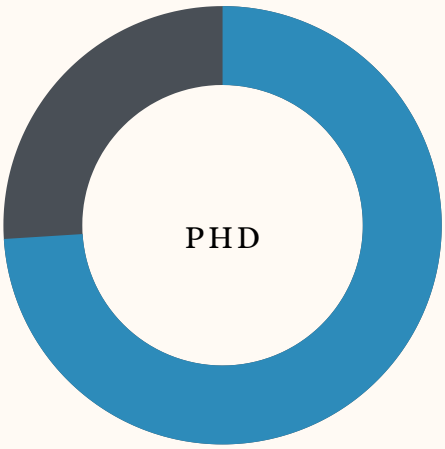
DR. NITIN DUTT CHATURVEDI

HOD DEPARTMENT OF CHEMICAL AND BIOCHEMICAL ENGINEERING

DEPARTMENT DEMOGRAPHICS



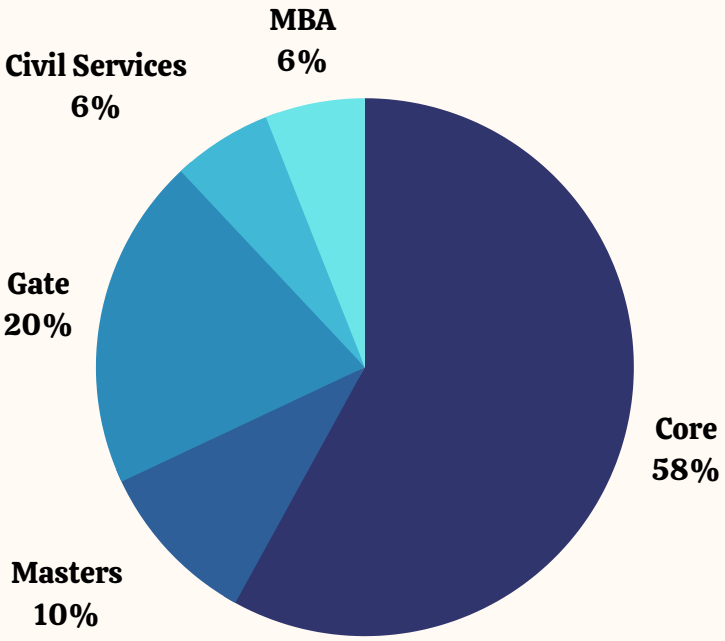




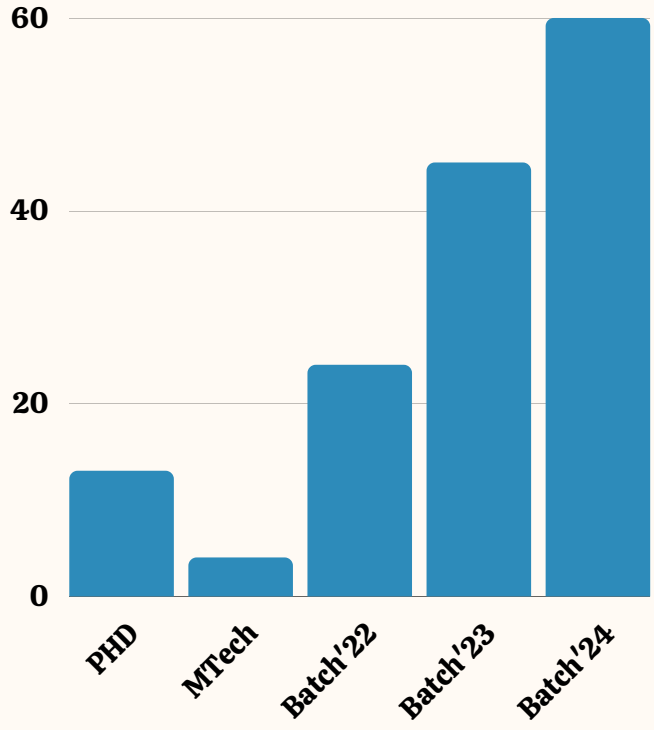
MALE

FEMALE

FUTUTRE PERSPECTIVE FOR CLASS OF 2022



BATCH STRENGTH



COURSES OFFERED

CORE COURSES

- CHEMICAL PROCESS CALCULATIONS
- FLUID MECHANICS MECHANICAL OPERATIONS
- HEAT TRANSFER & ITS APPLICATIONS
- MASS TRANSFER & ITS APPLICATIONS
- CHEMICAL ENGINEERING THERMODYNAMICS
- PROCESS EQUIPMENT DESIGN
- CHEMICAL PROCESS AND STIMULATION
- PROCESS CONTROL AND INSTRUMENTATION
- TRANSPORT PHENOMENA PROCESS
- PLANT DESIGN AND ECONOMICS
- CHEMICAL REACTION ENGINEERING
- CHEMICAL PROCESS TECHNOLOGY
- CHEMICAL REACTOR DESIGN

DEPARMENTAL ELECTIVES

- CATALYSIS SCIENCE AND ENGINEERING
- ENERGY MANAGEMENT
- BIO - PROCESS ENGINEERING
- FUEL AND COMBUSTION TECHNOLOGY
- NUMERICAL METHODS IN CHEMICAL ENGINEERING
- PETROLEUM REFINERY AND PETROCHEMICALS
- ADVANCED SEPARATION PROCESS
- RENEWABLE ENERGY SOURCES
- MOLECULAR MODELING AND SIMULATION
- HETEROGENEOUS CATALYSIS-FUNDAMENTALS AND APPLICATIONS
- PROCESS INTEGRATION
- RENEWABLE AND NON-CONVENTIONAL ENERGY SOURCES
- NON-NEWTONIAN FLOWSRHEOLOGY AND HEAT TRANSFER

LAB COURSES OFFERED

- MECHANICAL OPERATIONS AND FLUID FLOW LAB
- MASS TRANSFER LAB
- HEAT TRANSFER AND THERMODYNAMICS LAB
- CHEMICAL REACTION ENGINEERING AND ENVIRONMENTAL ENGINEERING LAB
- PROCESS CONTROL LAB
- CHEMICAL PROCESS SIMULATION LAB

RESEARCH AT IITP

Practical or informal knowledge manifests itself as skills or "knowing-how".
IIT Patna research accolade is comparable to any of the premier technical institutes of our country. Great, innovative and futuristic research papers are published not only by our faculty members but from our undergraduate students also. Being one of the premier research institute, great emphasis is given to research area. It is evident from our course structure also as from third semester onwards, undergraduates have numerous lab courses and encouragement from institute to work on research thesis.

Our faculty members have published research papers in many reputed international journals which includes- Journal of Chemical Engineering of Japan, International Journal of Heat and Mass Transfer, Journal of Computational Chemistry, Journal of Electrochemical Society and many more. Many of their research papers are accepted by information analytics sites such as Elsevier and Springer.

REASEARCH AREAS

PROCESS SYSTEMS ENGINEERING LABORATORY

Dr. Nitin Dutt Chaturvedi

PSEL aims to develop process and product design with emphasis on conservation of natural resources; in particular, materials, energy and water which is the need of the hour. .

CURRENT RESEARCH AREAS:

- Modeling and Simulation of Chemical processes
- Process system engineering
- Process Integration

GAS-SOLID STATE INTERACTION LABORATORY

Dr. Sushant Kumar

At GSIL, our research efforts are primarily directed in exploring novel catalysts/process routes for clean energy applications.

CURRENT RESEARCH AREAS:

- Solar-to-fuel conversion
- Ammonia Synthesis
- Heterogeneous Catalysis

CHEMICAL PROCESS DEVELOPMENT LABORATORY

Dr. Jose V Parambil

PDL aims at developing novel processes for production and separation of chemicals with improved efficiency while ensuring sustainability.

CURRENT RESEARCH AREAS:

- Development of a continuous separation process complementing continuous chemical synthesis
- Development of downstream processes for fermentation-based products
- Study of ayurvedic manufacturing processfor streamlining and improving reproducibility on an industrial scale

COMPUTATIONAL NANOSCIENCE LABORATORY

Dr. Sandip Khan

We are interested in understanding the structural, dynamical and interfacial properties of complex fluids at the nanoscale. We use Monte Carlo method, Molecular Dynamic Simulation and Density Functional Theory to probe the properties of fluids at molecular level.

CURRENT RESEARCH AREAS:

- Surface Phase transition of polar molecules
- Development of Novel Materials like super-hydrophobic, super-oleophobic, anti-fouling, anti-icing surfaces etc
- Self-Assembled Monolayer (SAMs) in application of chemical sensor
- Properties of confined fluids

BIOCHEMICAL LABORATORY

Dr. S. K. Samanta

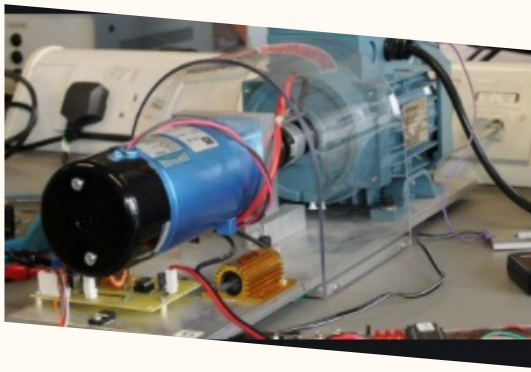
CURRENT RESEARCH AREAS:

- UV/TiO2 based Heterogeneous Photocatalysis for Degradation of Mixed Pollutants
- Enhancement of UV/TiO2 based Degradation Performance
- Microwave-enhanced Advanced Oxidation Processes for the Degradation of Dyes
- A Direct Method to Determine the Adsorbed Dyes on Adsorbent via Processing of DRS Data

ENERGY AND THERMOFLUIDS LAB

Dr. Anoop Kumar Gupta

E-Therm Lab focuses on solving emerging and cutting-edge problems in fluid, energy and particle transport systems with the help of MPCMs, two-way coupled multiphase flow behaviour, flow and deposition of ultrafine particles in arteries, flow through porous media, etc., using CFD.



CURRENT RESEARCH AREAS:

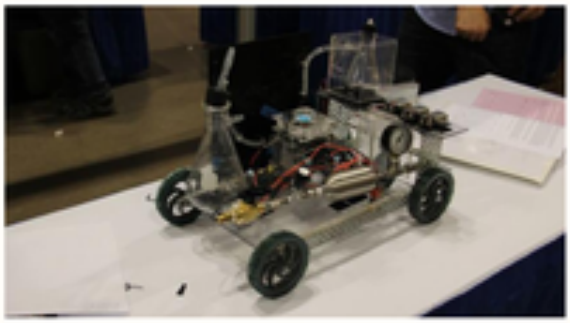
- Internal/external boundary layer flows in non-newtonian media
- Heat transfer augmentation in nanofluids
- Utilizing PCMs for efficient thermal energy storage
- Coupled CFD-DPM/CFD-DEM simulations

STUDENT ACTIVITIES

Threshold Club

1. Threshold Club aims at providing the right support to produce the best chemical engineering graduates of tomorrow.
2. It promotes interaction within the department and implements academic, social and other programs of interest to its members.

Chem-e-Car



1. Our department students actively participate in designing and building a small-scale automobile that operates by chemical means.
2. The previously built car model derived power from thermoelectric generators and the stopping mechanism was based on the iodine clock reaction.

Tribune

1. A magazine 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.

INDUSTRIAL VISIT

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

STUDENT ACHIEVEMENT

ACADEMIC INTERN

- Final year student Srija Karmakar has secured an internship at IIT ROPAR
- Final year student Akash Das has done an internship at IIT ROORKEE
- Junior year students Ananthajit A and Rishika Mandhyan got selected for IAS intern'21

INDUSTRIAL INTERN

- Final year students Pranshu Gupta and Manish Pratap Singh have done an internship at IOCL
- Final year student Raghav Bharadwaj has done an internship under field leaders at ONGC
- Final year student Grace Rawat has done an internships under field leaders at Maharani Innovative Paints Pvt Ltd
- Final year student Khushi Gour has done an internship for the Role of Big data and cloud engineer(IT) at rani.ai
- Junior year student Md Aarooj Yashin Ali had done an internship under field leaders at Reliance Industries Limited
- Junior year student Sakshi Singh had done a businesses internship at Metvy

TECH ACHIEVEMENTS

Google Summer of Code

Junior year student Ayush Srivastava and Anushka Chakraborty got selected by organizations for GSOC'21

INTER IIT TECH MEET

Students of IIT Patna stood overall at 11th position among all IITs in the InterIIT Tech Meet 2021, above all 2nd generation IITs and tied with IIT Hyderabad.

INTERNATIONAL PRESENCE

MUO's, POST GRADUATE AND INTERNSHIP

ALUMNI CONNECT

FUTURE BECKONS THE YOUNG DEPARTMENT.

SOURADEEP DAS (BATCH OF 2021)

GATE AIR -74/ MTECH IIT DELHI

Seniors and faculties of the Chemical department have always motivated me to keep improving and provided guidance throughout the 4 years of B.Tech journey. Apart from the academics, IIT Patna has also provided an enormous opportunities for personality building and leadership skills. Thank you IITP community for all these exposures and opportunities provided.

PARTH PATEL (BATCH OF 2020)

LNT VADODARA

IIT Patna has played a vital role in building my carrier. Seniors and faculties of the CBE department have always pushed me to keep improving and provided the necessary mentorship throughout the journey. I am grateful to them for guiding me to success in my education and eventually to a good career.

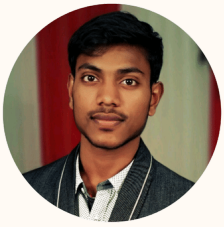
ATHARVA EKUTAPURE (BATCH OF 2021)

ERG GROUP

The atmosphere in IIT Patna not only encourages research and engineering, but, My four years as an undergraduate at IIT Patna were definitive in developing communication, marketing and other industrial skills that are just as important as the knowledge of chemical courses. It inculcated competitive and entrepreneurial mindset which helped me a lot during my corporate internship at ERC Group.

NISHANT KULSHRESTHA (BATCH OF 2020)

HPCL, MUMBAI



I was able to achieve this milestone only because of the exertions put by our faculties and Training and Placement cell. I am extremely grateful to them for effectively and sincerely helping me to grab the first-ever opportunity of my career. Got great support from the professors side during my projects which enhanced my hands-on experience.

VIVEK GARG (BATCH OF 2021)

PPO LTI

I will always be utterly grateful to the IITP fraternity for the amazing four years it gave to me. Through fests and clubs I found great opportunities to improve my social and management skills. I will be forever thankful to my professors and peers for their motivation and unconditional support in every problem I faced.

PAST RECRUITERS

GAIL (India) Limited

CONTACT US

Head of Department

DR. NITIN DUTT CHATURVEDI
cbe_head@iitp.ac.in

Professor-In-Charge

DR. JOSE V. PARAMBIL
pic_tnp@iitp.ac.in

Training and Placement Officer

KRIPA SHANKAR SINGH
tpc@iitp.ac.in
+91-8102917501

Student Coordinator

AKASH DAS
1801cb03@iitp.ac.in
+91 84206 82360