



## Department of Chemical and Biochemical Engineering



Indian Institute of Technology Patna  
Bihta, Patna-801106, Bihar

भारतीय प्रौद्योगिकी संस्थान पटना

### ***Vision Statement***

The Department of Chemical and Biochemical Engineering (CBE), IIT Patna was established in 2014 with world-class infrastructure at the new Institute campus in Bihta which is about 35 kms from Patna airport. Our mission is to create an environment that enables students to identify and pursue their personal and professional goals within an innovative educational and research program that is rigorous and flexible.

The department aims to generate and flourish new knowledge by engaging in cutting-edge research and promotes academic growth by offering the state-of-the-art undergraduate and postgraduate including doctoral programme. These programme intend to develop academically strong highly-qualified graduates who are self-motivated, independent, and are capable of undertaking independent work in industry and research in government and public sector organizations. The department is also endowed with young, vibrant, and dynamic faculties who are well qualified to impart high quality teaching and research.

### ***Academic Programme***

- B.Tech. (4-year programme)
- M.Tech. by Research (2-year programme)
- Ph.D.

### ***Research Areas***

- Catalysts for clean energy applications
- Renewable energy sources
- Molecular modelling and simulation
- Process integration
- CO<sub>2</sub> utilization and capture
- Waste water treatment
- Fuel cells and batteries
- Separation Processes
- Computational fluid dynamics and heat transfer
- Microwave assisted material processing
- Artificial Intelligence in Process system engineering

### ***Research Laboratories***

- Process Systems Engineering Laboratory
- Gas-Solid Interaction Laboratory
- Chemical Process Development Laboratory
- Energy & Thermofluids Laboratory
- Computational Nanoscience Laboratory
- Biochemical Laboratory

### ***Major Research Facilities***

- In-situ FTIR (Mid IR)
- Gas Chromatograph
- LC-MS/MS
- UV -Visible Spectrophotometer
- Dielectric Property Measurement Unit
- Fluorescence Microscope
- Linux Cluster (HPC)
- Comsol and ANSYS-Fluent license
- BET-TPDRO
- Electrochemical Analyzer
- TOC Analyzer

### ***Faculty Profiles***

- Dr. S.K. Samanta (PhD IIT Madras)
- Dr. Sandip Khan (PhD IIT Kanpur)
- Dr. N.D. Chaturvedi (PhD IIT Bombay)
- Dr. Sushant Kumar, HoD (PhD Florida International University)
- Dr. Jose V. Parambil (joint PhD from Imperial College London-NUS Singapore)
- Dr. Anoop K. Gupta (PhD IIT Kanpur)
- Dr. Atanu K Metya (PhD IIT Kanpur)
- Dr. Mahendra Ram (PhD IIT (BHU) Varanasi)

### ***Contact Us***

*E-mail:* cbe\_head@iitp.ac.in

*Phone:* 0612-3028276

*Website:* <https://www.iitp.ac.in>

*Address:* Block 06, IIT Patna, Amhara Road, Bihta, Patna-801106, Bihar, INDIA.

