



BIRLA INSTITUTE OF TECHNOLOGY, MESRA

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**PLACEMENT
BROCHURE
2021 - 22**

Department of
CHEMICAL ENGINEERING

Programmes Offered (CBCS) :

Undergraduate Programmes

- B.Tech in Chemical Engineering
- B.Tech in Chemical Engineering - P&P

Post-Graduate Programmes

- M.Tech in Chemical Engineering

Doctoral Programmes

- Ph.D.



The Department of Chemical Engineering with well qualified faculty provides high standard of education in the diversified fields of Chemical Engineering. The

Department has immense strength in the area of Polymer Engineering. The Department received national recognition by winning the Gold Trophy for Plasticon Award 2012 in the category of Best Educational Institution Contributing to Plastics. The Plasticon Award was conferred on 1st February 2012, at 8th International Plastics Exhibition and conference.

The programme was supported by Ministry of Chemicals and Fertilizers, Department of Chemicals and Petrochemicals, Government of India. Faculty members are working on sponsored projects and collaborative research with various organizations. The Department is also recognized under DST-FIST.

The Department has modern and sophisticated laboratories and workshop facilities such as Chemical Engineering Unit Operation laboratory, Chemical Reaction Engineering Laboratory, Process Control Laboratory, Synthesis Laboratory, Energy Engineering Laboratory, Polymer Characterization Laboratory etc.

The Department has excellent facilities in Polymer Processing Workshop and Product Development Laboratory including mould design and manufacturing facility.

CHEMICAL ENGINEERING

- CHEMICAL ENGINEERING THERMODYNAMICS
- FLUID MECHANICS
- MECHANICAL OPERATIONS
- CHEMICAL PROCESS CALCULATION
- MASS TRANSFER OPERATIONS
- CHEMICAL REACTION ENGINEERING
- HEAT TRANSFER OPERATIONS
- PROCESS TECHNOLOGY AND ECONOMICS
- PROCESS CONTROL AND INSTRUMENTATION
- PETROLEUM REFINING AND ENGINEERING
- PROCESS MODELLING SIMULATION AND OPTIMIZATION
- COMPUTER BASED PROCESS ENGINEERING
- PLANT DESIGN
- NUMERICAL METHODS.
- MATERIAL SCIENCE AND ENGINEERING
- CHEMICAL PRINCIPLES FOR CHEMICAL ENGINEERS

CHEMICAL ENGINEERING – (P&P)

- CHEMICAL ENGINEERING THERMODYNAMICS
- FLUID MECHANICS
- MECHANICAL OPERATIONS
- CHEMICAL PROCESS CALCULATION
- MASS TRANSFER OPERATIONS
- CHEMICAL REACTION ENGINEERING
- HEAT TRANSFER OPERATIONS
- PROCESS TECHNOLOGY AND ECONOMICS
- PROCESS CONTROL AND INSTRUMENTATION
- PETROLEUM REFINING AND ENGINEERING
- PROCESS MODELLING SIMULATION AND OPTIMIZATION
- COMPUTER BASED PROCESS ENGINEERING
- PLANT DESIGN
- NUMERICAL METHODS
- POLYMER PROCESSING AND TECHNOLOGY
- ELASTOMER TECHNOLOGY

POSTGRADUATE

- Advanced Transport Phenomenon
- Process Equipment Design
- Advanced Process Modelling Simulation and Optimization
- Advanced Mathematical Techniques in Chemical Engineering

The Chemical department of BIT Mesra is blessed with some advanced instrumentation facilities which help the students grab the knowledge and concepts much more efficiently.

Some of them are:

- Universal Testing Machine (Instron3366)
- Dynamic Mechanical Analyzer
- Electro Spinning
- Atomic Absorption Spectrometry
- Microcompounder
- Gas Chromatography
- Laminar Flow Reactor
- High Performance Liquid Chromatography
- Food Texture Analyzer
- Spectral Analyser
- Spray Drier
- Chemisorption
- Ultraviolet Spectrometry
- Electro Spinning
- Dart Impact tester
- Oxygen Index Tester
- Food Texture Analyzer



- ▶ Mr. Pranav Pandey & Ms. Pratibha Patel emerged as the winner of Mind Over Matter 2020.
- ▶ Mr. Sarvar-E-Abbas and Mr. Akshay Sharma was selected in the Summer Research Fellowship Program 2021 and are currently working on their projects in ICT Mumbai and BARC respectively.
- ▶ Ms. Shreya Singh was selected in the Google Summer of Code 2021.
- ▶ 8 alumni of the department are currently pursuing their MBA from esteemed colleges like XLRI Jamshedpur, IIM Ahmedabad, IIM Indore and FMS Delhi.
- ▶ Ms. Samiksha Gupta, Ms Kousumi Mukherjee & Mr. Roshan Kumar (2019 batch) secured 1st position in IDP challenge organized by ICT Mumbai.
- ▶ Ms. Akanksha Lakra (2019 batch) got selected research internship at Carnegie Mellon University (CMU). Pittsburgh. USA
- ▶ Mr. Prashant Kumar (2017 Batch) recieved Indira Gandhi NSS Award for the year 2015-16.
- ▶ Ms. Shreya Sinha and Ms. Anamika Sinha secured first position in Mind over matter 2018 organised by Tata Steel.
- ▶ Ms. Ananya Kant secured first position in Women of mettle 2018 organised by Tata Steel.

IICHE STUDENT'S CHAPTER

IICHE, BIT Mesra is the official technical group of Department of Chemical Engineering, BIT Mesra, Ranchi. The activities of the Student's Chapter specifically include the following:

- Lectures, Film shows and video shows related to the chemical engineering education and Profession.
- Seminars, Workshops, Group Discussion and debates to promote interaction of the institute with Industry.
- Book Banks for the use of its members.
- Excursions and Plant Visits of interest to the students of Chemical Engineering.
- Assistance and guidance for students of Chemical Engineering in their career planning and placement.
- Assistance for any other activities of social, technical and educational interest to Students of Chemical Engineering.

COALESCENCE

Coalescence, the annual technical symposium organized by the department of Chemical Engineering BIT, Mesra Ranchi, is all about on incorporating all ideas and coagulating them into one life changing idea.



Publications :

- Saha, S., Jha, S., Tiwari, A., Jayapalan, S. & Roy, A. Considerations for improvising fortified extruded rice products. Journal of Food Science (2021).
- Md. Wasi Ahmad, Surbhi Anand, Atiya Fatima, Duck-Joo Yang, Arup Choudhury. Facile synthesis of copper oxide nanoparticles-decorated polyaniline nanofibers with enhanced electrochemical performance as supercapacitor electrode. Polymers for Advanced Technologies (2021).
- Md Wasi Ahmad, Sushil Verma, Duck-Joo Yang, Mazhar Ul Islam, Arup Choudhury. Synthesis of silver nanoparticles-decorated poly(m-aminophenol) nanofibers and their application in a non-enzymatic glucose biosensor. Journal of Macromolecular Science, Part A (2021).
- Saha, S., Jha, S., Tiwari, A., Jayapalan, S. & Roy, A. Considerations for improvising fortified extruded rice products. Journal of Food Science (2021).
- Amit Kumar Tiwari, Deen Dayal giri and Dan Bahadur Pal. Nutritional Analysis of Mango, Jackfruit, Jamun and Amaltash Seeds Waste Biomass. Fourrages (2021) Vol. 244 (11), Pp. 42-53.

Research Areas :

- Synthesis and characterization of biomaterial and nanomaterial and its application in heavy metal removal, 1 year, 16.24 Lacs, Investigators- Dr. Dhanbahadur Pal and Dr. Dharmendra Pandey, Sponsoring Agency- NPIU, TEQIP 3
- Deep Eutectic Solvents as Electrolytes for Nanomaterials based high performance Supercapacitors, 1 year, 15.45 Lacs, Investigators- Dr. Anand Bharati and Dr. G.T Mohanraj, Sponsoring Agency- NPIU, TEQIP 3
- Development of process technology for enhanced resistant starch content in rice and rice based snack (Puffed rice), 3 years, 53.06 Lakh , Investigator- Dr. Anupam Roy, Sponsoring Agency- DST-SERB
- Transition metal(s) containing perovskite/CNFs composite for low temperature CO₂ reduction, 1 year, 16.58 lakhs, Investigators-Dr. Y. N. Prajapati and Dr. A. K. Sen, Sponsoring Agency- NPIU, TEQIP 3
- Development of nanofiller reinforced ionomer-based polymer nanocomposite for radio frequency absorber, 1 year, 14.60 lakhs , Investigators- Dr. Nirupama and Dr. Gautam Sarkhel, Sponsoring Agency- NPIU, TEQIP 3

The students have in them a varied sense of understanding in the current methods and operating procedures by the help of subsequent internships during summer and winter breaks. In order to facilitate the students with new advancements the department also ensures industrial visits over the period of semester so that students are convinced by practical means of theoretical sorts. These are some of the places wherein our students have worked as interns:

Industries:

- DRL
- Tata Steel
- Futures First
- Cognizant
- Steel Authority of India, Limited
- Tata Pigments
- Linde India Limited
- Phable Care
- Axis Bank
- Jindal Steel Works
- ONGC
- INMAS, Delhi (DRDO)
- Reliance Industries Ltd.
- Outlook Group
- Central CoalFields Limited
- Bharat Coking Coal Ltd.

Institutes:

- Carnegie Mellon University, Pittsburg
- Illinois Institute of Technology, Chicago
- IIM Ahmedabad
- IIT Indore
- IIT Kharagpur
- Institute of Chemical Technology, Mumbai
- Georgia Institute of Technology
- IIT Guwahati
- IIT BHU
- XLRI Jamshedpur



Few of our proud
RECRUITERS



Thank You

for your Time & Attention !

Contact Us :

placement@bitmesra.ac.in