



**BIRLA INSTITUTE OF TECHNOLOGY, MESRA**

[www.bitmesra.ac.in](http://www.bitmesra.ac.in)



**PLACEMENT  
BROCHURE  
2021 - 22**

*Department of*  
**PRODUCTION ENGINEERING**

## Programmes Offered :

### *Undergraduate Programmes*

- B.Tech. in Production and Industrial Engineering (4 year)

### *Post-Graduate Programmes*

- M.Tech. in Automated Manufacturing Systems

### *Doctoral Programmes*

- Ph.D. degrees are offered by the Department in Production and Industrial Engineering related disciplines as well as multi-disciplinary fields.



Department of Production and Industrial Engineering since its inception in 1964 (Previously Production Engineering) has been trying to impart quality education to undergraduates and train them to meet the demands of the manufacturing industry. The department has established links with the industry, R&D organizations, consultancy organizations and academic institutes in the region in furtherance of the cause of manufacturing engineering. The department sees itself as a pathfinder of emerging technologies and techniques in the area of production engineering and develops students to be technologically and managerially sound to meet the challenges of the open market in the present era of globalization.

The main objective of production and Industrial engineering is integration of technology with management in planning and controlling the design, development and operation of manufacturing system. Rapid advances in manufacturing technology, e.g., computer-controlled processes and management information systems, ERP and new manufacturing concepts like TPS, agile manufacturing, pull system etc., are reinforcing the recognition of technological, organizational, economic and human factors. Furthermore, specialized training in manufacturing technology is necessary for industries in India and abroad.

## B. Tech (PRODUCTION ENGINEERING)

- Foundry, Forming and Welding Technologies
- Metrology & Statistical Quality Control
- Kinematics and Dynamics of Machines
- Foundry, Forming and Welding Lab
- Metrology and Measurement Lab
- Production and Operations Management
- Design of Machine Elements
- Machining Science and Machine Tools
- Machine Tools Lab
- Machine Drawing and CAD Lab
- Machine Tool Design
- Project Engineering
- Production Economics and Financial Management
- Work System Design
- Machine Tool Design Sessional
- Work Study and Ergonomics Lab
- Computer Integrated Manufacturing & Cyber-Physical Systems
- Supply Chain Management
- Modelling and Simulation Lab
- Manufacturing Automation Lab

## M.Tech (AUTOMATED MANUFACTURING SYSTEMS)

- Manufacturing Automation
- Planning & Control of Production System
- Modelling and Simulation
- Data Analytics
- Computer Aided Manufacturing Laboratory
- Manufacturing Simulation Lab
- Robotics & Robot Applications
- Computer Integrated Manufacturing
- Soft Computing in Manufacturing Automation
- Autonomous Systems Lab
- Computer Aided Design & Drafting Laboratory

### Program Electives:

- Manufacturing Technology
- Additive Manufacturing None
- Manufacturing System Design
- Embedded System and Applications
- Optimization Techniques
- Hydraulic & Pneumatic Controls
- Manufacturing Automation
- Quality Engineering and Robust Design
- Automatic Control
- Mechatronic Systems

The Department of Production and Industrial Engineering at Birla Institute of Technology has following major laboratories and central workshop to impart the state of art knowledge to the students in the field of production and Industrial engineering.

**LABORATORIES**

- FMS and Robotics
- Metrology
- Metallurgy
- Manufacturing Mechatronics
- Work Study & Ergonomics
- Metal forming
- Machine tool & Automation
- Non-Traditional Manufacturing

**CENTRAL WORKSHOP**

- Pattern making shop
- Foundry shop
- Welding shop
- Forging shop
- Machining shop

**MAJOR EQUIPMENT AVAILABLE**

- i) Flexible Manufacturing Systems & Robotics
- ii) VMC 800M 5-axis Machining Center
- iii) Wire EDM
- iv) Laser Cutting and Welding Machine
- v) Water Jet Machining

- ▶ Three students have won Campus Innovathon 2020 which was organized by Gilbarco Veeder Root India and has bagged 2nd Place with a cash prize of Rupees 25000 and PPI offers.
- ▶ Student currently secured AIR 179 in Production and Industrial Engineering in GATE-2021.
- ▶ Research publications in International Journal of Service and Computer Oriented Manufacturing, International Journal of Advance Engineering Research and Sciences, etc.
- ▶ Successfully held an International conference on "Evolution in Manufacturing: Technologies and Business Strategies for Global Competitiveness".
- ▶ Undergraduate students were Winners of "MIND OVER MATTER" competition held by TATA Steel in 2018, 2019 and selected in 2020.
- ▶ Students received PPI opportunities by finishing in top teams in ZS Campus beats challenge held by ZS Associates in 2020 and 2021.
- ▶ Students from the department have won laurels in many business and technical case competitions organized on a national level.
- ▶ Students securing podium finishes at national competitions through various teams and clubs.
- ▶ Research intern at Illinois Institute of technology.

## **SIME**

Society for Industrial Management and Engineering provides a platform for the BIT Mesra undergraduates through industrial visits, event seminar, webinars, research projects, workshops, annual meets from time to time. It is a rich platform where industry-based science and engineering is given importance and opportunity for students to come forward to enhance their skill which will eventually help them after graduating from the college.

## **TEAM AVEON RACING**

Team Aveon Racing consists of highly zealous students who come together to build an "Electric All-Terrain Vehicle" and participate in a national-level event called electric-BAJA. The team is highly dedicated to design, build, test, promote and race an ATV within due limits. Designing, fabrication, assembly and testing-all kinds of work are done by the students themselves in the college workshops with an aim to build a lighter, faster and the more durable ATV.

## **TEAM FIREBOLT RACING**

Firebolt Racing is the official off-road racing team of BIT Mesra. They fabricate and design the All-Terrain Vehicle (ATV) of our dreams. This very group, participates BAJA SAE INDIA They have a legacy of receiving laurels for our performance in BAJA SAE INDIA and as of now, stand as the 3rd fastest ATV in the country. Apart from BAJA SAE INDIA, we also participate in Mega ATV Championship and ESI International.

## **TEAM SRIJAN**

Team Srijan is one of the oldest technical clubs of Birla Institute of Technology, Mesra Ranchi, that has been growing steadily since 2007. It is a group of undergraduates who work together to design, conceive and manufacture the prototype of a formula race car to participate in Formula Student competitions held across the globe. They are bonded together by passion to innovate and apply our knowledge into practical scenarios.

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:**

- Tata Motors
- Tata Steel
- Indian Railways
- SAIL
- Heavy Engineering Corporation Ltd.
- Gilbarco Veeder Root
- FuturesFirst
- Phable Care

- Hindalco Industries Ltd.
- Dr. Reddy's Lab
- Maruti Suzuki
- NBC Bearings
- Indian Steel & Wire Products Ltd.
- Central Coalfields Ltd.
- Cognizant
- DRL

**Institutes:**

- Illinois Institute of Technology, Chicago
- IIM Bengaluru
- IIT Indore
- IIT Kharagpur
- DRDO

**Deloitte.**

**BYJU'S**  
The Learning App

**LARSEN & TOUBRO**

**TATA STEEL**

**Flipkart**

**TATA**  
TATA STEEL LONG PRODUCTS LIMITED

**Capgemini**

**AXIS BANK**

**HYUNDAI**

**Hero**

**nbc**  
flexible solutions

**Reliance**  
Industries Limited

**ZS**

**MARUTI SUZUKI**

**Dr.Reddy's**

**stellium**

**accenture**

**ITC**  
ITC Limited

**Cognizant**

**BOX8**

**Futures First**

**uσ**  
Mu Sigma

**CGI**

**wipro**

**EXL**

**vedanta**  
transforming elements  
VEDANTA LIMITED

*Few of our proud*  
**RECRUITERS**





**Thank You**

*for your Time & Attention !*

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**Contact Us :**

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