BIRLA INSTITUTE OF TECHNOLOGY

MESRA, RANCHI – 835215 | www.bitmesra.ac.in

Placement Brochure

MECHANICAL ENGINEERING

Year: 2023-24



About the Department

Since its inception in 1955, the Department of Mechanical Engineering has a wide reputation for the quality of teaching and research it offers. It has awarded top grades for both teaching and research activities from independent and government bodies.

Programmes Offered

Undergraduate Programmes

• B.Tech in Mechanical Engineering

Post-Graduate Programmes

- M.Tech. in Heat Power Engineering
- M.Tech. in Design of Mechanical Equipment
- M. Tech. in Computer-Aided Analysis and Design
- M.Tech. in Energy Technology

Doctoral Programmes

• PhD.





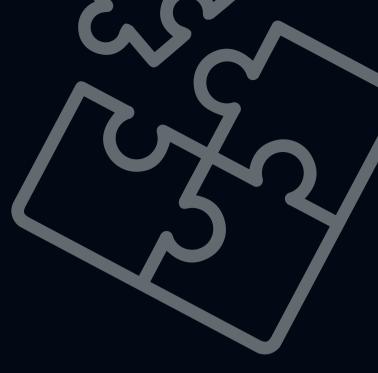
Courses Offered

B. Tech

- Engineering graphics
- Engineering Mechanics
- Principles of Mechanical Engineering
- Thermodynamics Fluid Mechanics
- Heat Power Conversion
- Mechanics of Materials
- IC Engines and Gas Turbines
- Kinematics and Kinetics of Machines
- Design of Machine Elements
- Automobile Engineering

- Turbo machines
- Design of thermal system
- Theory and Design of IC engine
- Advanced Thermodynamics
- Gas turbine and Jet Propulsion
- Fuels and Combustion
- Advanced strength of materials
- Optimisation methods in Engineering
- Advanced computer graphics
- Advanced Energy System
- Engineering design methodology





M. Tech

• Advanced Fluid Mechanics

Laboratories and Facilities



- FLUID MECHANICS LAB
- MECHANICS OF SOLIDS LAB

- I.C ENGINE LAB
- ENERGY ENGINEERING LAB
- CAD LAB
- HEAT TRANSFER LAB

- ENERGY SYSTEM LAB

• ENGINEERING MECHANICS LAB • ENGINEERING MEASUREMENT LAB • MECHANICAL ENGINEERING LAB • NON-CONVENTIONAL ENERGY LAB

• AUTOMOBILE ENGINEERING LAB • DYNAMICS OF MACHINE LAB • ENERGY AUDITING OF DIFFERENT

Research

Areas



Car simulator in the Automation Lab designed by students of BIT Mesra

Research Areas

- Computational Fluid Mechanics
- Heat Transfer
- Renewable Energy
- Design of Thermal System
- Computer Aided Analysis and Design
- Solar Energy
- Waste Heat Recovery

- Fluidics
- Mechanics of Materials
- Plastic Deformation and Fracture.

- I.C. Engines and Gas Turbines
- Bio-fuels and Combustion
- Refrigeration and A/c Systems

Achievements

Firebolt Racing, the official off-road racing team of BIT Mesra, achieved success in prestigious competitions. In BAJA SAE India 2022, they secured 1st place in Sales Presentation, 2nd place in Lightest Vehicle Category, and 3rd place in Acceleration. In BAJA SAE India 2023, they achieved 5th place in Cost Presentation and 7th place in Sales Presentation.

Our undergraduate students won the "MIND OVER MATTER" competition hosted by TATA Steel in 2018, 2019, and 2020. They were also selected for the prestigious TATA Steel "WOMEN OF METTLE" initiative, earning valuable PPIs in 2020, 2021, and 2022.

Our students were selected in Walmart Sparkplug 2022 bagging internships and showcasing their prowess. Additionally, two students were chosen for an exchange program at the esteemed Georgia Institute of Technology this summer, expanding their knowledge and experiences.

In the ZS Campus Beats challenge in 2020 and 2021, team members received promising PPI opportunities.

Team Srijan, the official formula racing club, shined bright by winning laurels for the college. In the FSUK Concept Class 2021 electrical category, they excelled by securing the 2nd position in Asia and the 26th position worldwide. Furthermore, in the Formula Green ISNEE 2022 electrical category, they won the 1st place in the Cost and Manufacturing event and secured the 2nd place in the Design event.

In ADC 2022, Aerospace Society secured 1st place in the Best Aerodynamic Analysis category.



- TATA

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