



PLACEMENT BROCHURE

DEPARTMENT OF MECHANICAL
ENGINEERING

BIRLA INSTITUTE OF TECHNOLOGY

2024-2025





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 been awarded top grades for both teaching and research activities from independent and government bodies. The excellent laboratory facilities, modern computer clusters, systematically designed curriculum, and dedicated faculty members make this Department a dynamic place to study.

PROGRAMS OFFERED

UG PROGRAMMES

**B.Tech in Mechanical
Engineering**

PG 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**

DOCTRAL 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

M.TECH

- ADVANCED FLUID MECHANICS
- 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

RESEARCH AREAS

- **Computational fluid mechanics**
- **Heat transfer**
- **Renewable energy**
- **Design of thermal system**
- **Computer aided analysis and design**
- **Solar energy**
- **Waste heat recovery**
- **I.C. engines and gas turbines**
- **Bio-fuels and combustion**
- **Refrigeration and a/c systems**
- **Fluidics**
- **Mechanics of materials**
- **Plastic deformation and fracture**





LABORATORIES & FACILITIES

- **ENGINEERING MECHANICS LAB**
- **FLUID MECHANICS LAB**
- **MECHANICS OF SOLIDS LAB**
- **ENGINEERING MEASUREMENT LAB**
- **MECHANICAL ENGINEERING LAB**
- **NON-CONVENTIONAL ENERGY LAB**
- **I.C. ENGINE LAB**
- **ENERGY ENGINEERING LAB**
- **CAD LAB**
- **AUTOMOBILE ENGINEERING LAB**
- **HEAT TRANSFER LAB**
- **DYNAMICS OF MACHINE LAB**
- **ENERGY AUDITING OF DIFFERENT ENERGY SYSTEM LAB**

SOFTWARE

- **AUTOCAD**
- **ANSYS**
- **CREO**
- **NX-4**
- **MATLAB**
- **CATIA**
- **LINGO**
- **STAADPRO**
- **ASPENTECH**

STUDENT BODIES

Team Srijan: Leading the Charge in Formula Electric Vehicles

- Team Srijan, with 40 engineering students, has been a pioneer in Formula Student since 2007. The team has represented India at events like FS UK, FS Italy, and FS Germany, initially excelling in Combustion and now focusing on electric vehicles. Their latest prototype, "Garud," has achieved notable success in Formula Bharat and Formula Green.

Designing and Manufacturing the Vehicle

- Students working in the club undergo rigorous training in SolidWorks, ANSYS, and MATLAB. They handle all aspects of fabrication, including machining, welding, and assembly, followed by over two months of rigorous testing.

Success Beyond College

- Alumni excel in the automotive industry and management roles, thanks to the blend of engineering skills and professionalism developed within the team.

Collaborative Excellence

- While Team Srijan focuses on Formula vehicles, Team Firebolt and Team Aveon specialize in ATVs. All teams emphasize rigorous training and professional development, driving innovation and career success.



ACHIVEMENTS

Firebolt Racing at BIT Mesra excelled in BAJA SAE India:

- 1st in Sales Presentation
- 2nd in Lightest Vehicle
- 3rd in Acceleration in 2022
- 5th in Cost Presentation
- 7th in Sales in 2023

Undergraduates achievements:

- Dominated TATA Steel's "MIND OVER MATTER" from 2018 to 2020
- Earned spots in "WOMEN OF METTLE" initiative from 2020 to 2022
- Impressed in Walmart Sparkplug 2022
- Secured spots at Georgia Tech's exchange program

ZS Campus Beats:

- Provided promising PPI opportunities in 2020 and 2021

Team Srijan's Formula Racing achievements:

- Secured 2nd in Asia and 26th worldwide in FSUK Concept Class 2021
- Won 1st in Cost and Manufacturing in Formula Green ISNEE 2022

Aerospace Society triumphed in ADC 2022:

- Secured 1st in Best Aerodynamic Analysis.

OUR RECRUITERS



Let's Get In Touch

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