



EXPLORE INNOVATION EXCEL



MECHANICAL ENGINEERING PEC UNIVERSITY OF TECHNOLOGY

PLACEMENT BROCHURE'16

The Department of Mechanical Engineering at PEC University is as old as the Institute itself.

The Department is continuously striving to achieve excellence in education, academic & industry oriented research to prepare the manpower that are globally competitive and capable of leading in industry, academia and government organizations in both India and abroad.

Besides the Bachelor degree, Department offer Master and Ph.D. programme also. The academic curriculum has been designed to emphasize the mathematical and scientific approach and Industrial training and projects, to endow its graduates to become intellectual leaders in industry, government, and academia. In our department, Ph.D. students are working in different research domains including Advanced /non-traditional machining processes, Micromanufacturing, CAD/CAM, Composites, Bio-materials, Modelling and Computation in heat transfer, Internal combustion engines, Nano fluids, Mechanical Vibration and so on. Our M.E. and Ph.D. students get scholarship under MHRD and other financial assistance under TEQIP.

The major strength of the department is its experienced and enthusiastic teaching faculty & well supportive technical staff for laboratories. The department can boast of very well equipped laboratories and centralized workshop that caters to the need of the entire Institute. The department is also well equipped with computational facilities and resources both in terms of hardware and software.

PROGRAMS OFFERED

B.Tech.

M.Tech.

PhD



COURSES OFFERED

Manufacturing

- Elements of Manufacturing Processes
- Manufacturing Processes
- Production Engineering
- Computer Aided Design Drafting & Manufacturing
- Advanced and Hybrid Manufacturing
- Manufacturing Science & Processes

Thermal & Fluid Engineering

- Elements of Thermodynamics
- Applied Thermodynamics
- Refrigeration & Air Conditioning
- Heat Transfer
- Micro and Nano Scale Thermal Engineering
- Power Plant Engineering
- Computational Fluid Dynamics

Applied Mechanics

- Kinematics of Machines
- Strength of Material & Basic Concept of Design
- Dynamics of Machines
- Mechanics of Materials
- Design of Mechanical Systems
- Mechanical Vibration
- Fracture Mechanics

Departmental Elective courses

- Production & Operation Management
- Maintenance Engineering
- Energy Conversion
- Tribology & Lubrication
- Work Study & Ergonomics
- Industrial Automation and Robotics



RESEARCH AREAS

- Advanced Manufacturing Processes
- Soft computing in Design and Manufacturing
- F.E.M. in Engineering
- Internal combustion engines
- Nanofluids
- Micro-manufacturing
- Mechanical Vibration
- Modelling and Computation in heat transfer
- Material Testing
- Thermal and Automobile Engineering
- Quality Management
- Simulation using ansys and abacus
- Automatic insertion of rubber lining while assembly of car body.
- Design of safety Helmet.
- Equipment for balancing a scooter on instant braking.
- Automatic Door opening mechanism.
- Conventional and Unconventional processing of Composites, Metal matrix composites and welding technology



INDUSTRIAL COLLABORATIONS

CBDL

Development in the field of failure analysis of rotors and turbines.

Vardhman, Ludhiana

Vardhman Industries are in association with PEC for Student Exchange Program (trainee) and regular placements.

Mahindra & Mahindra

Swaraj Division (a unit of FES M&M), Mohali (Formal MoU in-process)

CSIO

Central Scientific Instruments Organization, Chandigarh providing extensive research collaborations connecting experts from the institution with the industry.

Lentrix Automobiles

Explored the areas of material development and corrosion, also associated with PEC for consultancy.

CTU

Design modification of bus body for CTU.

NNE, Ludhiana

Designing and development of new materials and technology in bicycle industry.

NTPC, Delhi

NTPC Limited is an Indian PSU Public Sector Undertaking, engaged in the business of generation of electricity and allied activities

Indian Railways

Design and fabrication of side frame manipulator at BCN depot Indian Railways at BCN depot Indian Railways.

INTERNSHIPS

INDUSTRY & RESEARCH INTERNSHIPS

Icuerious | Eicher Tractors | Alstom | Bitmapper | LI Consulting | LexInnova | Anand Group | L&T | JS Mobileon | Fiat | Grey Orange | Dabur | VECV | Nuberg Engg Ltd. | TATA Steel | TRIDENT | Reliance Chillers Mumbai | Mahindra & Mahindra | University of Western Ontario

FINANCE AND ANALYTICS

JP Morgan | LI Consulting
Amazon (Opr.) | Uber

INFRASTRUCTURE- LAB AND EQUIPMENT

The Department provides ample laboratory facilities for experiments and hands-on training to the students both in the academic subjects as also in the emerging fields of specialization. The Department has following well developed labs:

LABORATORIES

- Theory of Machines Lab
- Strength of Materials Lab
- Applied Thermodynamics Lab
- Computer aided Design Lab
- Advanced Manufacturing and Micro-Machining Lab
- Heat Engine Lab
- Vibration Analysis Lab
- Heat Transfer Engine Lab
- Automobile Engineering Lab
- Refrigeration & Air-condition Lab

Some of the special machineries available include:-

- Frazer boiler (with steam engine)
- Gas Turbine

- Universal Testing Machine
- Impact Testing Machine
- Ford 4-cylinder engine
- Fiat Engine
- Multi-fuel injection system
- EDM and USM
- Variable compression ratio engine
- Micro EDM
- Cochran Boiler
- Creep testing machine

WORKSHOPS

Central workshop comprises of following shops:

- Machine Shop
- Fitting Shop
- Welding Shop
- Sheet Metal Shop
- Electroplating Shop
- Forging Shop
- Carpentry and Pattern Making Shop