2015-2016

PLACEMENT BROCHURE

M.TECH PRODUCTION ENGINEERING

Production Engineering emphasizes on design, implementation, monitoring of Manufacturing processes in order to achieve the most efficient and cost effective way of producing the highest quality product possible. Production Engineering is considered as one of the challenging specializations in Mechanical Engineering Department.

INDIAN INSTITUTE OF TECHNOLOGY DELHI
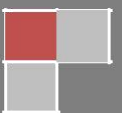
About us

Mechanical Engineering Department is one of the oldest departments of the institute. It is also one of the biggest departments of the institute with student strength of about 650. The department has faculty strength of 50 (37 in position) and faculty members of the department are also occupants of different chairs of the institute which include BHEL Chair, NTPC Chair and Mehra Chair. Department has a technical staff of 43 who are associated with 23 different laboratories.

Manufacturing is of growing importance and it is taken into account in modern teaching of higher education all around the world. Production Department is having an institute central facility on Rapid Prototyping. The department is very well equipped with computational facilities and resources both in terms of hardware and software. Department has more than 250 computing systems and workstations loaded with wide range of software products covering all areas of mechanical engineering.

Prof. R.K. Pandey
T&P Coordinator
Department of Mechanical Engineering

"The post graduates from our department are ambitious and youthful group of innovative technologists who will carve a niche for themselves in the world of technology by the virtue of their zeal for excellence and hard work.

It is an honour for us to invite the recruiting corporates for the campus placement and we are confident that you will leave the campus equally privileged."

Master Of Technology in PRODUCTION ENGINEERING

भारतीय प्रौद्योगिकी संस्थान दिल्ली
Indian Institute of Technology, Delhi

KEYS

- Eminent faculty with educational exposure from acclaimed International universities.
- QS world ranking of IITD Mechanical Dept. is 58.
- IITD: Ranked 1st in India.
- Consultancy/Project services to government and leading Corporate Organizations.

Courses

- CNC and its programming
- CAD/CAM
- Injection Moulding and Die Design
- Metal Forming Analysis
- Rapid Prototyping
- Composite Materials & Processing
- Machining Process and Analysis
- Metrology
- Casting Technology
- Welding & Allied Process
- Automation in Manufacturing

Opted Courses:
- Finite Element Method
- Modern Engineering Materials
- Advanced Metal Forming

Software Facilities:

- MATLAB 2013b
- ANSYS 14.0
- Abaqus
- DYNA forming
- Simufact Forming
- Moldflow Simulation
- Creo Parametric 2.0
- Fluid SIM
- Protel

Lab Facilities:

- Production Engineering Lab
  1. 10 axis CNC
  2. Micro Machining
  3. Compression Moulding
  4. Injection Moulding
  5. Micro Injection Moulding
  6. Extruder and Roller
- Metal Forming Lab
- Metrology Lab
- Automation Lab
- Rapid Prototyping
- Design for Manufacturing; FEM
- CAD/CAM Lab
- Welding Research Lab

Ongoing PROJECTS..

Accuracy related studies on fused filament deposition technology: Rapid prototyping(RP) is a new technology used to quickly fabricate the part directly from its CAD model in industries. Fused deposition modelling(FDM) is one of the most widely used RP processes. One of the current challenges in FDM is the quality of the parts produced by this process. Objective is to experimentally investigate the influence of different process parameters in dimensional accuracy of the built parts and calculation of shrinkage factor in each direction(X,Y,Z).

Vibration assisted incremental sheet forming: Incremental sheet forming is a new type of sheet forming technique done on a CNC milling machine. It is a die-less process and gives good formability result. Major drawback of normal incremental sheet forming is its geometrical accuracy, spring- back and surface finish. By using ultrasonic vibratory tool these drawbacks can be overcome and incremental sheet forming can be used in industry for batch production and other useful needs

Finite element and experimental study of thermoforming process: Plastics have been used widely in packaging industry and for permanent/structural applications. Thermoforming is used for manufacturing products from plastic sheets. Finite element study of thermoforming process is important to avoid any defects in products and to improve quality of product. Materials like PVC, HIPS are analyzed and parameters like strain rate, vacuum pressure, non-uniform sheet temperature are varied to achieve uniform part thickness.

Ultrasonic Assisted Grinding Of Titanium Alloys: There has been an increasing demand of Titanium alloys especially Ti-6Al-4V in various fields viz. aerospace, automobile, medical devices, gas turbine blades etc. However, due to its low thermal conductivity, high chemical reactivity, low modulus of elasticity etc., its machinability is generally poor. During conventional grinding of titanium alloys, these peculiar properties lead to various grindability issues like very high grinding force, surface burning, chip adhesion to wheel, thermal stress accumulation etc. To ease the grinding of titanium alloys, ultrasonic vibration can be applied either to the wheel or work-piece in order to achieve improvements like reduction in grinding force, less wheel wear, better surface finish, reduction in cutting temperature etc.

FIB Machining of Single Crystal Materials: Miniaturization is the central theme in modern fabrication technology. Focused Ion Beam (FIB) is a great tool for fabrication at nano scale. The aim of the project is to machine single crystal diamond and single crystal silicon by FIB machining in order to obtain the moulds for nano-imprinting technology and to study the effects of beam current, beam energy, percentage overlap of beam, ion incident angle, dwell time on material removal rate and surface finish during the machining.

PLACEMENT PROCEDURE

- Interested companies contact professor-in-charge or placement officer, Training and Placement Cell for a Job Notification Form (JNF) at placement@admin.iitd.ac.in.

- JNF requires the companies to fill in mandatory details of the job profile – role offered, pay package, place of posting, eligible departments.

- Once the filled-in-JNF with all the required details is received, companies are assigned username/password to access their online account on T&P website.

- Companies are also assigned space on the server on which they may upload any presentation, videos, data or other information they want the students to see.

- The JNF has to be frozen on the T&P website by the company till a deadline, after which the students shall be able to view all the details, and the eligible students may apply.

- After the application deadline for the students, the resumes are visible to the company. The company submits shortlist on its online account before a deadline.

- Shortlisted students get notified.

- The placement office allots the dates for the campus interviews.

- After the completion of the selection procedure on campus, company is required to announce the final list of the students on the same day itself.

- If a student is selected, the job is registered against him/her and he/she would not be allowed to appear for more interviews as per placement policy.

Past Recruiters

Contact Us:

Departmental website: mech.iitd.ac.in

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