

## SCHOLASTIC ACHIEVEMENTS

- Placed in the **top 1.77%** of the appeared students in **GATE-2011** in Mechanical Engineering
- secured **1<sup>st</sup> rank** in rural area of the district in Maharashtra scholarship examination and received the scholarship up to matriculation awarded by govt. of Maharashtra.

## KEY ACEDMIC PROJECTS

- **M. Tech. Project :**

### **Modeling and burr minimization of drilling for Ti-6Al-4V**

[Ongoing]

- Designed special jig required for performing the drilling experiments
- Performed drilling experiments using Taguchi method and analyzed the burr profile
- Experimental results will be compared with simulation results

- **Bachelor Project:**

### **Design and manufacturing of Vapour Absorption Refrigeration system**

[Jan'09- May'10]

- Developed working model of 1TR refrigeration system based on vapour absorption between water and ammonia
- Carried out the complete thermodynamic analysis of the system

## PUBLICATIONS

## POSITIONS OF RESPONSIBILITY

- **Teaching assistant at IIT Bombay**

Assisted and evaluated students in :

- Graduate level course "Equipment and Processes Design Lab" [Prof. A. Mukhopadhyay]-  
Graduate level course "Manufacturing Process Seminar" [Prof. D. Bahadur ]

## INDUSTRIAL TRAINING

- **Sharada Motor Industries Ltd., Nashik** [June'08]
  - Done a field work on the assembly lines producing the silencers of different automobiles

## SEMINARS

- **M.TECH Seminar: Challenges in drilling of difficult to machine alloys** [Jan-May'11]
  - Carried out a detailed study to understand factors affecting drilling of several difficult to machine materials and ways to solve those problems
  - **Computational methods for metal forming analysis** : Analysis of sheet metal formability using **GOM** testing machine and validation of results by finite element software **Hyper form**
  - **Finite difference method for partial differential equations**: Implemented algorithms developed in finite difference method for partial differential equation in **MATLAB**
- **Course seminars:**
  - **Repair of hot working tools**: Studied Cost effective and relatively simple methods like laser cladding , welding etc for repairing of hot working tools
  - **Analysis of tube drawing process** : Studied and Analyzed the tube drawing process with FEM model and analytical model with results
  - **polymer accelerometer** : Studied use of polymers in MEMS devices like accelerometers in stead of silicon with its advantages and losses
  - **Total strain energy theory**:studied yield criterion given by Beltrami and Haigh for material
  - **Group technology (GT)** : Characteristics, implementation in processing technique, applications and benefits of GT are studied

## KEY ELECTIVES (AT IITB)

- |   |                               |
|---|-------------------------------|
| ▪ Design and Analysis of Experiments Using Taguchi Method | ▪ Introduction to <b>MEMS</b> |
| ▪ Characterisation of materials                           | ▪ Ultra precision machining   |
| ▪ Computation methods for metal forming analysis          |                               |

## INSTRUMENTS AND SOFTWARE SKILLS

- **Programming language**: MATLAB
- **Modelling Tools** : ANSYS, Deform ,SolidWorks, Autocad, Hyperform
- **Instrument proficiency**: Tool makers microscope, Zeta 3D microscope
- **Language proficiency** : Marathi, Hindi, English
- **Hands of experience on** : 3 Axis vertical machining center, Mechanical testing,

