

Production Engineering Laboratory
Department of Mechanical Engineering
National Institute of Technology, Srinagar

Faculty In-charge: Dr.Noor Zaman Khan

Email: noorzaman@nitsri.ac.in

Technical Staff: Mr.Ali Mohammad Mir (Senior Technician)

Utilization:

1. Conducting experiments for Manufacturing Technology Laboratory (MEC 305P) - 3rd Sem
2. Conducting experiments for CAM & Industrial Automation Laboratory (MEC 405P)- 4th Sem
3. B.Tech. Project work.
4. M.Tech. Dissertation work.
5. Ph.D. research work

Equipment available in the Lab

- Lathe Machine
- CNC Lathe Machine
- CNC Milling Machine
- Bench Drilling Machine
- Bench Grinding Machine
- Surface Grinding Machine
- Shaper Machine
- Power Hacksaw

Manufacturing Technology Lab (MEC 305P)

Course Outcomes

CO1: Describe the geometry of single point cutting tool.

CO2: Apply knowledge of metal cutting to perform various machining operations.

CO3: Explain the working and use of various components of conventional machine tools.

CO4: Identify the sequence of operation to process a job.

List of Experiments

- To study the construction details and working principle of Lathe Machine. 03
- To perform Taper Turning using Lathe Machine 02
- To perform Step Turning using Lathe Machine 02
- To Study the Tool Geometry of a Single Point Cutting Tool. 01
- To perform drilling operation on a given workpiece using Drilling Machine 04
- To perform shaping operation on a given workpiece using shaper machine 04

CAM and Industrial Automation Lab (MEC-405P)

Course Outcomes

CO1: Explain the working and use of various components of CNC machines.

CO2: Identify the sequence of codes to process a job.

CO3: Create CNC program for turning and milling operations.

CO4: Produce different profiles on the surface of a given material

List of Experiments

- To study the fundamental of CNC Machine 01
- To study the different codes used in CNC machine 02
- To perform drilling operation on CNC-Milling Machine 03
- To perform Slotting operation on CNC-Milling Machine 03
- To perform Turning operation on CNC-Lathe Machine 03
- To perform Milling Operation to produce name initial on CNC Milling Machine 04

Lab Ambience

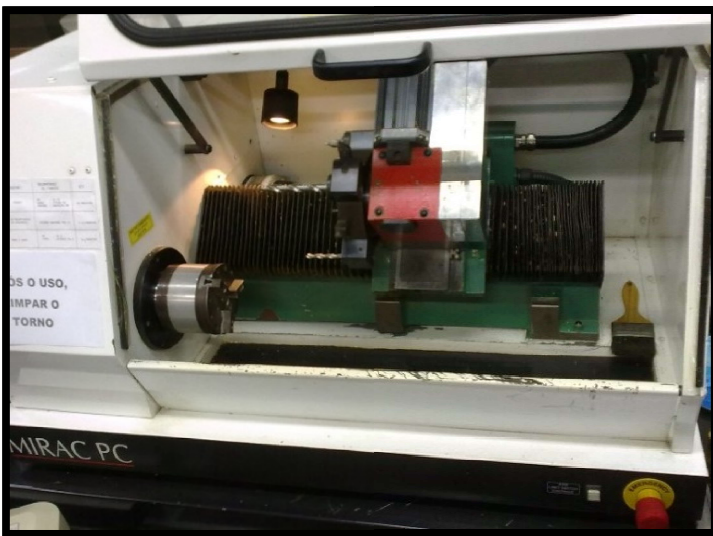


Major Equipment in the Lab

Lathe Machine (Vikram, hmt)



CNC Lathe Machine (Denford)



CNC Milling Machine (Denford)

