

LAB FACILITY

Sl. No.	Name of the Laboratory	Name of the Important equipment
1	Engineering Practice Laboratory	<ul style="list-style-type: none"> • Carpentry bench wise Arc welding unit • Gas welding unit • Welding motor • Wood cutting machine
2	Manufacturing Technology laboratory	<ul style="list-style-type: none"> • Centre Lathe • Horizontal Milling Machine • Vertical Milling Machine • Shaper • Turret and Capstan Lathes • Horizontal Milling Machine • Vertical Milling Machine • Surface Grinding Machine • Cylindrical Grinding Machine • Radial Drilling Machine • Lathe Tool Dynamometer • Gear Hobbing Machine • Tool Makers Microscope • Center less grinding machine
3	Metrology and Dynamics laboratory	<ul style="list-style-type: none"> • Profile Projector • Autocollimator • Vibration Shock Measuring setup • Floating Carriage Micrometer • Temperature measurement module • Displacement measurement module • Force measurement module • Digital surface Roughness Tester • Digital Vernier Caliper • Digital Micrometer • Motorized gyroscope with disk • Static and Dynamics Balancing Apparatus • Universal Governor Apparatus • Cam Analysis Machine • Vibration (Universal Apparatus) • Whirling of Shaft • Vibration Platform • Control Panel Box with Dimmer starter



Sl. No.	Name of the Laboratory	Name of the Important equipment
4	Strength of Materials and Fluid Mechanics laboratory	<ul style="list-style-type: none">• Universal testing machine• Izod / Charpy Impact testing machine• Rockwell hardness testing machine• Brinell hardness testing machine• Deflection test apparatus• Analogue torsion testing machine• Muffle furnace• Tension and compression spring testing machine model.• Closed circuit Pipe friction apparatus• Closed circuit venturimeter• Closed circuit orificemeter• Closed circuit rotometer• Closed circuit gear oil pump• Reciprocating pump test Rig• Centrifugal pump test Rig• Submersible pump test Rig• Pelton turbine test Rig• Francis turbine test Rig.• Kaplan Turbine
5	Mechatronics Laboratory	<ul style="list-style-type: none">• Basic Pneumatic Trainer Kit with manual and electrical controls/ PLC Control• Basic Hydraulic Trainer Kit• Hydraulics and Pneumatics Systems Simulation Software• 8051 - Microcontroller kit with stepper motor and drive circuit.• Image processing system with hardware & software.
6	CAD / CAM laboratory	<ul style="list-style-type: none">• i5 systems – 30 Nos• CNC Lathe – 1 no• CNC Milling - 1 No• Solidworks 2023 software – 60Users• Autocad 2020 Software – Student version



Sl. No.	Name of the Laboratory	Name of the Important equipment
7	Thermal laboratory	<ul style="list-style-type: none">• I.C Engine – 2 stroke and 4 stroke model• Apparatus for Flash and Fire point• 4-stroke Diesel Engine with mechanical loading• 4-stroke Diesel Engine with hydraulic loading• 4-stroke Diesel Engine with electrical loading• Multi-Cylinder Petrol Engine• Single Cylinder Petrol Engine• Guarded plate apparatus Guarded plate apparatus• Lagged pipe apparatus• Natural convection – vertical cylinder apparatus• Forced convection inside tube apparatus• Composite wall apparatus• Thermal conductivity of insulating powder apparatus• Pin-fin apparatus• Stefan-Boltzmann apparatus• Emissivity measurement apparatus• Parallel/counter flow heat exchanger apparatus• Single / two stage reciprocating air compressor• Refrigeration test rig• Air-conditioning test rig

LAB PHOTOS



Engineering Practices Lab



Manufacturing Technology Lab



Manufacturing Technology Lab



Dynamics Lab



Metrology Lab



Strength of Materials Lab



Fluid Mechanics Lab



Mechatronics Lab



Thermal Engineering Lab



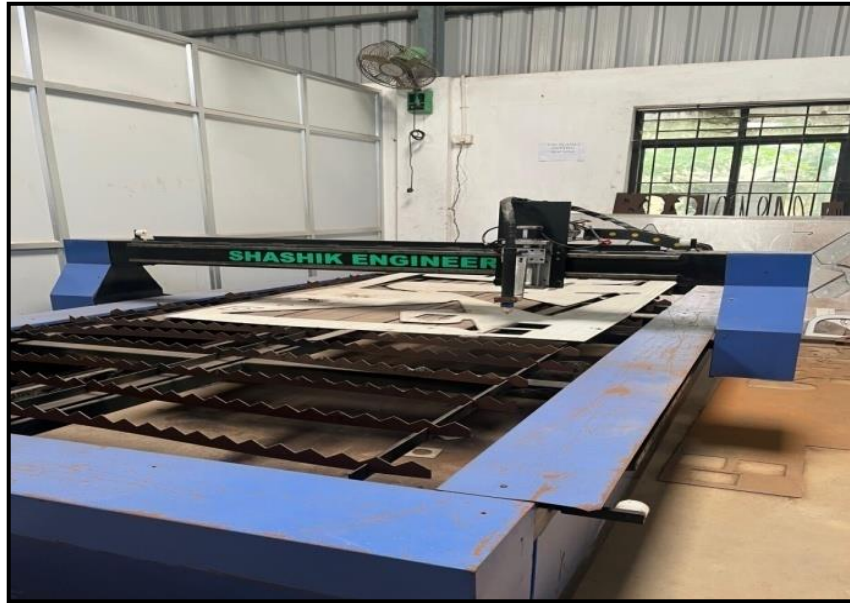
CAD Lab



CNC Milling

ADDITIONAL FACILITIES AVAILABLE IN THE DEPARTMENT

Sl.No.	Facility Name
1	CNC Plasma Cutting Machine
2	Wood Router Machine
3	BMW Twin power Turbo inline multi cylinder Diesel engine
4	Thermal Solar Seed project
5	3D Printer
6	Bio Digester
7	Multiprocessor
8	Vibrating Table
9	Transverse vibration of cantilever beam
10	Transverse vibration of fixed beam
11	Slotter Machine
12	Gear Models
13	Tool and Cutter Grinder
14	Power Hacksaw Machine
14	Punching press
15	2 Stroke and 4 Stroke Engine Demo Models



Plasma Cutting Machine



Wood Router Machine



BMW Engine



Thermal Seed Project



Multiprocessor Station



Vibrating Table



Transverse vibration of cantilever beam



Transverse vibration of fixed beam



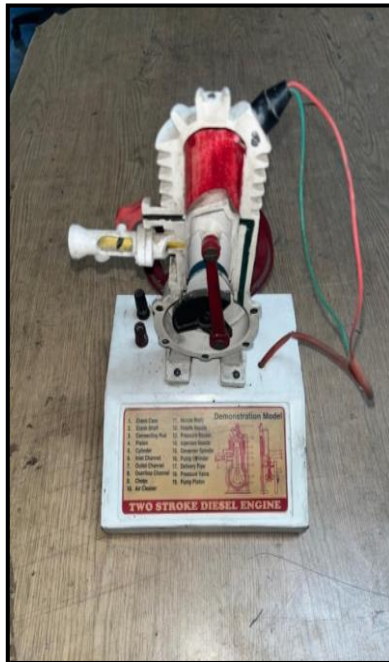
Slotter Machine



Tool and Cutter Grinder



Punching press



Stroke and 4 Stroke Engine Demo Models