

S.No	Name of the Laboratory	Name of the Important equipment
1	Thermal Engineering Lab	Two Stroke Petrol engine cut-section Four Stroke Diesel engine cut-section Redwood Viscometer Cleveland Open Cup Flash and Fire Point Apparatus Single Cylinder Four Stroke Diesel Engine With Rope Brake Dynamometer Single Cylinder Four Stroke Diesel Engine With Electrical Dynamometer Multi Stage Reciprocating Air Compressor Steam Boiler apparatus Multi cylinder petrol engine hydraulic Dynamometer Single Cylinder Four Stroke Diesel Engine With Hydraulic Dynamometer with DAQ Single cylinder slow speed diesel engine with mechanical brake dynamometer Steam turbine
2	Lathe Shop	Light duty lathe (9 nos.) Medium duty lathe (5 nos.) Heavy duty lathe (3 nos.) All geared lathe (1nos.) Bench grinding machine Lathe tool dynamometer
3	Basic Workshop	Plumbing components: 1. Metallic Pipes 2. Plastic Pipes, 3. Flexible Pipes, 4. Couplings, Unions, 5. Elbows, Plugs and other Fittings Power Tools: 1. Rotary Hammer (2 nos.) 2. Demolition Hammer (2 nos.) 3. Circular Saw (2 nos.) 4. Planer (2 nos.) 5. Hand Drilling Machine (2 nos.) 6. Jigsaw 7. Angle Grinder

		Arc welding transformer with cables and holders and Welding booth with exhaust facility(5 nos.)
		<ol style="list-style-type: none"> 1. Hearth Furnace, Anvil and Smithy Tools 2. Molding Table, Foundry Tools 3. Centrifugal Pump, Air-Conditioner 4. Hand Shearing Machine
		Drilling machine
4	Heat Power Lab	Guarded Plate Apparatus
		Lagged Pipe Apparatus
		Natural Convection-Vertical Cylinder Apparatus
		Forced Convection Inside Tube Apparatus
		Thermal Conductivity Of Insulating Powder Apparatus
		Pin-Fin Apparatus
		Stefan-Boltzmann Apparatus
		Emissivity Measurement Apparatus
		Parallel/Counter Flow Heat Exchanger Apparatus
		Refrigeration Test Rig
		Air-Conditioning Test Rig
		Fluidized Bed Cooling Tower Mini Test Rig
5	Special Machines Lab	Shaper Machine
		Slotter Machine
		Horizontal Milling Machine
		Turret Lathe
		Capstan Lathe
		Surface Grinding machine
		Radial Drilling Machine
		Cylindrical Grinding Machine
		Gear Hobbing Machine
		Shaper Machine II
		Center less Grinding machine
Milling Tool Dynamometer		
6	CAD Lab	17" Dell TFT Monitor, Keyboard with Optical Scroll Mouse (80 nos.)
		Intel @ Core 2 Duo CPU 2.63 GHz with 2.00 GB RAM and 500GB SATA HDD(80 nos.)
		Solid works 2010
		Windows 7 Operating System

		Canon 2900 A4 Laser Printer		
7	Dynamics laboratory	Cam follower setup		
		Motorized gyroscope		
		Governor apparatus <ol style="list-style-type: none"> 1. Watt 2. Porter 3. Proell 4. Hartnell governors 		
		Whirling of shaft apparatus		
		Torsional Vibration by Single and Two rotor system		
		Spring mass vibration system		
		Kinematics of Gear train model apparatus <ol style="list-style-type: none"> 1. Simple 2. Compound 3. Epicyclic 4. Differential gear trains 		
		Kinematic Models to study various mechanisms <ol style="list-style-type: none"> 1. Four Bar 2. Slider Crank 3. Double Rocker 4. Elliptical Trammel Mechanisms 		
		Turn table Apparatus		
		Transverse vibration setup of <ol style="list-style-type: none"> 1. Cantilever beam 2. Free-free beam 		
		Kinematics of Universal Joint		
		8	Metrology & Measurements Lab	Micrometer (0 to 25 mm)
				Micrometer (25 to 50 mm)
				Vernier Caliper (0 to 200mm)
Vernier Height Gauge (0 to 300mm)				
Depth Gauge (0 to 25mm)				
Slip Gauge Set				
Gear Tooth Vernier				
Sine Bar				
Floating Carriage Micrometer				
Profile Projector / Tool Makers Microscope				
Mechanical Comparator				
Autocollimator				
Force Measuring Setup				
Torque Measuring Setup				

		Surface Measuring Equipment
		Temperature Measuring Setup
		Bore Gauge
		Telescope Gauge
		Coordinate Measuring Machine
9	Mechatronics Lab	Air Compressor
		Micro Controller Kit
		Servo Controller Interfacing
		Electro Pneumatic Trainer Kit (Jtk8) With Smgs
		PID Controller Interfacing
		Control Of Velocity ,Direction ,Etc
		Automation Studio
		Computerized Data Logging For Temperature & Pressure Control
		Basic Pneumatic Trainer Kit(JTK9)
		Stepper Motor Interface And Switch Mode Power Supply
		Single Acting Cylinder
		Double Acting Cylinder
		Jasp3.0
		Wall Posters
		Cut Section & Image Processing System
10	ANSYS Lab	19" Dell TFT Monitor, Keyboard with optical scroll mouse (40 nos.)
		Intel Core i3 – 4130 CPU 3.40 Ghz with 4.00 GB RAM and 500 GB sata HDD (40 nos.)
		Computer server
		HP A4 Printer
		Epson L110 Multi jet colour printer

Additional facilities created for improving the quality of the Students

Thermal/Automobile laboratory

S.No	Facility Name	Reason(s) for creating facility	Area in which students' are expected to have enhanced learning
1	AVL /DiGas 444	To acquire knowledge about combustion process in IC Engines	Automobile- Combustion process
2	Unitech/ Data logger	To Impart acquaintance of Pressure variations in IC Engine	Automobile- Combustion process

CMMT Laboratory

S.No	Facility Name	Reason(s) for creating facility	Area in which students' are expected to have enhanced learning
1	CNC Vertical Machining Centre	Students Project / Research / Consultancy / Industrial Exposure to Students	Manufacturing / Product Development
2	CNC Turning Centre	Students Project / Research / Consultancy / Industrial Exposure to Students	Manufacturing / Product Development
3	Surface Roughness Tester	Students Project / Research / Consultancy / Industrial Exposure to Students	Product Development / Metrology
4	Stir Casting	Students Project / Research / Consultancy	Manufacturing

5	Trinocular Microscope	Students Project / Research / Consultancy	Product Development / Metrology
6	Double Disk Polishing	Students Project / Research / Consultancy	Product Development
7	Specimen Mounting Press	Students Project / Research / Consultancy	Product Development
8	Pin On Disk	Students Project / Research / Consultancy	Product Development / Metrology
9	Ball Milling	Students Project / Research / Consultancy	Manufacturing / Product Development
10	Linisher Polisher	Students Project / Research / Consultancy	Product Development
11	Binocular Microscope	Students Project / Research / Consultancy	Product Development / Metrology
12	Fatigue Tester	Students Project / Research / Consultancy	Product Development / Metrology
13	Profile Projector	Students Project / Research / Consultancy	Product Development / Metrology
14	Co-ordinate Measuring Machine	Students Project / Research / Consultancy / Industrial Exposure to Students	Product Development / Metrology