

Mechanical Engineering Department

1. Dynamics of machinery LAB

List of major equipment (Costing more than ₹ 50,000)

- Vibration Apparatus

List of experimental set up

- Trifiler Suspension System
- Gyroscope
- Vibration Apparatus
- Slip of Belts Apparatus.
- Static And Dynamic Balancing Apparatus
- Centrifugal Governor
- Whirling Speed Apparatus
- Dynamic Coefficient Measuring Apparatus
- Hydraulic Door Closer
- CAM Profilometer
- Models



2. Heat Transfer LAB


List of major equipment Costing more than ₹ 50000)



Nil

List of experimental set up

- Emissivity Measurement Apparatus.
- Thermal Conductivity of Insulating Powder.
- Critical Heat Flux Apparatus.
- Composite Wall Apparatus
- Natural Convection Apparatus.
- Thermocouple Calibration Test Rig.
- Parallel Flow /Counter Flow Heat Exchanger.
- Stefan-Boltzman Apparatus.
- Metal Rod Apparatus.
- Finned Tube Heat Exchanger.
- Heat Flow through Lagged Pipe Apparatus.
- Drop Wise and Film Wise Condensation Apparatus.



<ul style="list-style-type: none"> Heat Transfer from Pin Fin Apparatus. 	
3. Basic Mechanical/ Energy Conversion Lab	
List of major equipment (Costing more than ₹ 50,000)	<ul style="list-style-type: none"> Centrifugal air compressor Test Rig
List of experimental set up	
<ul style="list-style-type: none"> Demonstrative Models of Boiler Demonstrative Models of Boiler Mountings Boiler Accessories Demonstration Model of Surface Steam Condenser Demonstration Model of Steam Engine Demonstration Model of Compound Steam Engine Demonstration Model of Expansion Steam Strap Demonstration Model of Reducing Valve 	
<ul style="list-style-type: none"> Working Model Of 4-Stroke Cycle Single Cylinder Petrol Engine Working Model of Fuel Injection System Working Model of Lubrication System Working Model of Battery Ignition System Working Model of Carburetor Working Model of Steam Turbine Working Model of Gas Turbine Working Model of Magneto Ignition System Working Model of 4- Stroke 4-Cylinder Petrol Engine Working Model of 2-Stroke Petrol Engine Working Model of 4- Stroke Diesel Engine Orsat Apparatus Bomb Calorimeter 	

4. Refrigeration & Air conditioning Lab		
List of major equipment (Costing more than ₹ 50000)		ICE Plant Testing Heat Pump
List of experimental set up		
<ul style="list-style-type: none"> • Ice Plant Test Rig • Air Conditioning Cycle Test Rig • Refrigeration Cycle Test Rig • Window Air Conditioner • Water Cooler • Heat Pump 		
5. Tribology LAB		
List of major equipment: - (Costing more than ₹ 50000)		Nil
List of experimental set up		
<ul style="list-style-type: none"> • Michell Trust Bearing Apparatus • Journal Bearing Apparatus • Break Line Friction Test Rig • Friction In Journal Bearing Apparatus 		
6. CAD Center		
List of major equipment/ Software (Costing more than ₹ 50000.)		<ul style="list-style-type: none"> • LCD Projector • Online UPS • Ansys Software • CATIA V5 Software • Autocad2005
Hardware/software		

<ul style="list-style-type: none"> • Intel Pentium4 • Printer Epson LX300+ • Switch 8 port Net gear & 16 port Net gear • Window XP • Window 98 • Quick Heal • Turbo C++ • Think-client Center 	
7. Metrology Lab.	
<p>List of major equipment (Costing more than ₹ 50000.)</p>	<ul style="list-style-type: none"> • Auto Colimeter • Angle Decker • Tool Maker's Microscope
<p>List of experimental set up</p>	
<ul style="list-style-type: none"> • Floating Carriage Micrometer • Profile Projector • Surface Plate • Monochromatic Checklight • Slip Gauge • Angle Gauge box • Sine Bar • Straight Edge Apparatus • Plug Gauge Set • Gear Tool Vernier • Thread Micrometer • Optical Flat • Micrometer Outside • Thread Plug Gauge • Thread Ring Gauge • Combination Set • Spirit Level 	

8. Metallurgy LAB

List of major equipment: - (Costing more than ₹ 50000)

List of experimental set up

- Binocular Metallurgical Microscope - 2 nos.
- Trinocular Metallurgical Microscope
- Metallurgical Microscope
- Fluorescent Penetrant Portable Kit
- Magnetic Crack Detector
- Muffle Furnace
- Jominy Hardenability Apparatus
- Double Disc Polishing Machine
- Abrasive Belt Grinder
- Poldi Hardness Tester
- Rockwell Hardness Tester



9. Work shop

- Norton gear box lathe machine
- Shaping machine
- Radial drilling machine
- Surface grinder
- Capstan lathe
- Turret lathe
- Welding transformer
- Slotting machine
- Bench grinding machine
- Power hacksaw machine
- Spot welding machine
- Fitting vices
- Carpentry vices
- Tools & equipment



10. Heat Engine LAB

- Four Cylinder Petrol engine test rig
- Single cylinder Diesel engine test rig
- Cut section model of petrol & Diesel engine



11. Hydraulic machine LAB

- Pelton wheel
- Centrifugal pump test rig
- Reciprocating pump test rig
- Kaplan Turbine test rig



12. Drawing Hall

- Drawing Boards
- Drawing table



13. PG Lab

• Lenovo P IV	10
• Ansys- 05 usres	1
• Laptop Dell vostro	1
• LCD Projectors	1
• Exhaust Gas Analyser	1
• Diesel engine test rig	1
• Petrol engine test rig	1
• Thermal conductivity of Metal rod	1
• Parallel/counter flow Heat exchanger	1
• Emissivity measurement apparatus	1
Thermal conductivity of Compo. wall	1
• Stephan Boltzman Apparatus	1