

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	

- 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.

List of major equipment (Costing more than ₹ 50000.)

- Auto Colimeter
- Angle Decker
- Tool Maker's Microscope

List of experimental set up

- 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
- Flourescent Pentrant 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