

**DEPARTMENTWISE EQUIPMENT DETAILS****“MECHANICAL & RAIL ENGINEERING”**

Sr. No.	Name of the Department	Total No. of Labs
1	Mechanical & Rail Engineering	06

Sr. No.	Name of the Laboratory
1.	Heat Transfer
2.	Metallurgy & Manufacturing Process
3.	Refrigeration & Air Conditioning
4.	Internal Combustion Engine
5.	Theory of Machines
6.	Metrology & Applied Thermodynamics

LAB 1: ROOM NO: B-109**LAB NAME: Heat Transfer Laboratory****Equipment Details-**

1. Thermal Conductivity Of Insulation Power
2. Composite Wall Apparatus
3. Lagged Pipe Apparatus
4. Thermal Conductivity Of Metal Rod
5. Natural Convection Apparatus
6. Forced Convection Apparatus
7. Emissivity Measurement Apparatus
8. Stefan Boltzman Apparatus
9. Critical Heat Flux Apparatus
10. Condensation In Drop & Film Form
11. Parallel Flow /Counter Flow Apparatus
12. Heat Pipe Appartus
13. Thermal Conductivity Of Liquid



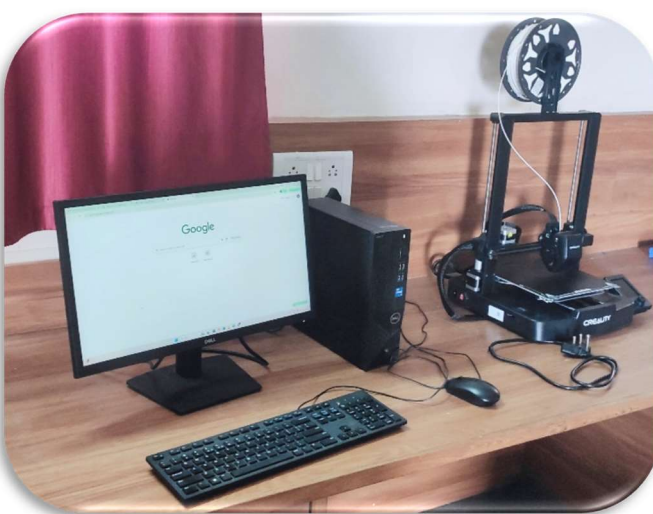
LAB 2: ROOM NO: B-110

LAB NAME: Metallurgy & Manufacturing Process Laboratory

Metallurgy



Manufacturing Process



Equipment Details-

1. Metallurgical Microscope
2. Microstructure Of Steel
3. Muffle Furnace
4. Dye Penetrant Test Apparatus

Equipment Details-

1. Sand Siever With Sieve Jet
2. Rapid Moisture Tester
3. Universal Strength Machine
4. Core Hardness Tester
5. Mould Hardness Tester



LAB 3: ROOM NO: B-108A

LAB NAME: Refrigeration & Air Conditioning Laboratory



Equipment Details-

1. Ice Plant Test Ring
2. Air Conditioning Test Ring
3. Vapour Compression
4. Vapour Absorber Refrigeration Test Ring



LAB 4: ROOM NO: B-107A

LAB NAME: Internal Combustion Engine Laboratory



Equipment Details-

1. Cylinder Four Stroke Petrol Engine
2. Actual Model Of Ignition System
3. Actual Model Of Cooling System



LAB 5: ROOM NO: A-214

LAB NAME: Theory of Machines Laboratory



Equipment Details-

1. Compound Pendulum
2. Bifilar Suspension
3. Trifilar Suspension
4. Motorised Gyroscope Apparatus
5. Flat Belt Velocity Ratio Apparatus
6. Static & Dynamic Balancing Apparatus
7. Motorized Governor



LAB 6: ROOM NO: A-215

LAB NAME: Metrology & Applied Thermodynamics Laboratory

Metrology



Applied Thermodynamics



Equipment Details-

1. Measurement of Torque apparatus,
2. Flow Measurement Using Rotameter
3. Flow Measurement Using Rotameter
4. Dead Weight Pressure Gauge Tester
5. Profile Projector Model

Equipment Details-

1. Flash & Fire Point Apparatus
2. Carbon Residue Apparatus
3. Cloud & Power Point Apparatus
4. Reciprocating Air Compressor
5. Bomb Calorimeter



LAB 7: ROOM NO: B-101 & 102

LAB NAME: Workshop



Workshop Details-

1. Fitting Shop
2. Welding Shop
3. Machine Shop
4. Sheet Metal Shop
5. Carpentry Shop
6. Welding Machine 300 A.M.P
7. Spot Welding Machine
8. 4.5 Feet Light Duty Lath Machine
9. Radial Drilling Maching
10. 6" Medium Duty Lath Machine