



Guru Ghasidas Vishwavidyalaya (A Central University), Bilaspur, 495009 (C.G.)

गुरु घासीदास विश्वविद्यालय (केन्द्रीय विश्वविद्यालय) , बिलासपुर 495009 (छ.ग.)

School of Studies of Engineering & Technology

अभियांत्रिकी एवं प्रौद्योगिकी अध्ययनशाला

Office of the Head Department of Mechanical Engineering

कार्यालय, विभागाध्यक्ष, मेकेनिकल इंजीनियरिंग

**Details of Laboratory Apparatus:-**

**Heat & Mass Transfer Lab**

S.No.	Description of items with make, model& serial No.	Location of the asset
1	Heat transfer From Pin Fin	Auditorium Mech. Lab.
2	Parallel Flow & Counter Flow Heat Exchanger	Auditorium Mech. Lab.
3	Heat Transfer in Force Convection	Auditorium Mech. Lab.
4	Specific Heat of Air Apparatus	Auditorium Mech. Lab.
5	Emissivity Apparatus	Auditorium Mech. Lab.
6	Vortex Tube Apparatus	Auditorium Mech. Lab.
7	Regenerative Heat Exchanges	Auditorium Mech. Lab.
8	Vertical Condenser	Auditorium Mech. Lab.
9	Heat Pump Testing Rig	Auditorium Mech. Lab.
10	Composite Wall Apparatus	Auditorium Mech. Lab.
11	Lagged Pipe Apparatus	Auditorium Mech. Lab.
12	Heat Pipe Demonstration	Auditorium Mech. Lab.
13	Critical Radius of Insulating Material Apparatus	Auditorium Mech. Lab.
14	Heat Conduction Apparatus	Auditorium Mech. Lab.
15	Heat Transfer in Natural Convection Apparatus	Auditorium Mech. Lab.
16	Unsteady Heat Transfer Apparatus	Auditorium Mech. Lab.
17	Stefan Bollzman Apparatus	Auditorium Mech. Lab.
18	Drop wise & Film wise Condensation Apparatus	Auditorium Mech. Lab.
19	Thermal Conductivity of Insulating Powder Apparatus	Auditorium Mech. Lab.
20	Thermal Conductivity of Metal Rod Apparatus	Auditorium Mech. Lab.
21	Finned Tube Heat Exchanges	Auditorium Mech. Lab.
22	Shell & Tube Heat Exchangers	Auditorium Mech. Lab.
23	U-Tube Finned Heat Exchanges	Auditorium Mech. Lab.
24	Cross- Flow Hear Exchanges	Auditorium Mech. Lab.
25	Radiation Heat Transfer Apparatus	Auditorium Mech. Lab.
26	Two Phase Heat Transfer Unit	Auditorium Mech. Lab.



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<b>Theory of Machine (Kinematics &amp; Dynamics) Lab</b>		
<b>S.No.</b>	<b>Description of items with make, model&amp; serial No.</b>	<b>Location of the asset</b>
1	Universal vibration Apparatus	Auditorium Mech. Lab.
2	Cam analysis Apparatus	Auditorium Mech. Lab.
3	Whirling of shaft	Auditorium Mech. Lab.
4	Static & dynamic balancing demonstrator	Auditorium Mech. Lab.
5	Motorized gyroscope	Auditorium Mech. Lab.
6	Journal bearing Apparatus	Auditorium Mech. Lab.
7	Coriolis's Components of Acceleration Apparatus	Auditorium Mech. Lab.
8	Epicyclic Gear Train Apparatus	Auditorium Mech. Lab.
9	Universal Governor Apparatus	Auditorium Mech. Lab.
10	Slip and Creep Measurement Apparatus	Auditorium Mech. Lab.
11	Four bar link mechanism	Auditorium Mech. Lab.
12	Reciprocating Engine Mechanism	Auditorium Mech. Lab.
13	Whit Worth's Quick Return Mechanism	Auditorium Mech. Lab.
14	Epicycle Gear Train	Auditorium Mech. Lab.

<b>Refrigeration &amp; Air Conditioning Lab</b>		
1	Natural Cooling Tower	Auditorium Mech. Lab.
2	Window Air Conditioning Test Rig.	Auditorium Mech. Lab.
3	Heat Pump	Auditorium Mech. Lab.
4	Cascade Refrigeration Cycle Test Rig.	Auditorium Mech. Lab.
5	Refrigeration Cycle Test Rig	Auditorium Mech. Lab.
6	Mini Cold Storage Plant	Auditorium Mech. Lab.
7	Air Conditioning Cycle Test Rig.	Auditorium Mech. Lab.
8	Low Temperature Cycle Test Rig.	Auditorium Mech. Lab.
9	Vapour Compression Refrigeration Test Rig.	Auditorium Mech. Lab.



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<b>Strength of Materials Lab</b>		
1	Analog Type Torsion Testing Machine	Auditorium Mech. Lab.
2	Fatigue Testing M/c with Max. Bending Moment	Auditorium Mech. Lab.
3	Automatic Brinall Hardness Testing Machine	Auditorium Mech. Lab.
4	Electronic Rockwell Hardness Tester	Auditorium Mech. Lab.
5	Vickers's Hardness Tester	Auditorium Mech. Lab.

<b>Internal Combustion Engine Lab</b>		
1	4 Stroke SI Engine test Rig	Engineering & Technology Workshop
2	4 Stroke CI Engine test Rig	Engineering & Technology Workshop
3	Ignition System of SI Engine	Engineering & Technology Workshop
4	Model of Carburetor with cut section	Engineering & Technology Workshop
5	Working model of Lubricating System	Engineering & Technology Workshop
6	Cut Section model of 4 Stroke Diesel Engine	Engineering & Technology Workshop
7	Cut Section model of 4 Stroke Petrol Engine	Engineering & Technology Workshop
8	Cut Section model of 2 Stroke Petrol Engine	Engineering & Technology Workshop