

## Department Library:

Description about the labs in detail and also outcomes of the labs should be clearly written.

Name of the laboratory and Details	
<p style="text-align: center;"><b>CAED/ CAMD</b></p> <p>Lab are well equipped with 150 number of latest computer systems with network connection for practicing exercises using Solid Edge ST6 software (120 Licenses).</p> <p>The CIM &amp; Automation laboratory is equipped with CNC milling machine and a five axis robot along with licensed softwares such as CATIA, Solid Edge, ANSYS, Master CAM and CapsTURN &amp; CapsMILL.</p>	
<p style="text-align: center;"><b>MACHINE SHOP</b></p> <p>The Machine Shop is fully equipped with lathes, drilling, milling, grinding, slotting, turret and shaping machines. The students are also trained in using inserts for cutting tool for machining purpose.</p>	
<p style="text-align: center;"><b>FOUNDRY &amp; FORGING LABORATORY</b></p> <p>The Foundry &amp; Forging laboratory being smoke free (unique of its kind) is furnished with 2 LPG fired furnace for performing forging models and is also equipped with foundry sand testing apparatus with proper ventilation, space and sufficient lighting.</p>	

### **METALLURGY & MATERIAL TESTING LABORATORY**

Laboratory is equipped to carry out Tensile, Compression, Shear, and Bending tests along with setup for testing specimens for Hardness, Impact, Cracks, etc. Also MS, Al, CI specimens are identified for their microstructures using metallurgical microscopes.



### **METROLOGY & MECHANICAL MEASUREMENTS LABORATORY**

The Metrology & Mechanical Measurements laboratory is fully equipped with experimental setup for measuring pressure, load, temperature, displacement and setup for finding dimensions of gear blank, screw, taper, surface finish, etc.



### **ENERGY CONVERSION & FLUID MECHANICS LABORATORY**

The Energy Conversion engineering lab is equipped with two stroke, four stroke petrol and diesel engine test rigs for conducting performance tests. In addition, also consists of variable compression ratio test rig, Morse test rig, equipments for conducting Flash & fire point tests, viscometers and calorimeters.



### **HEAT TRANSFER LABORATORY**

The Heat Transfer laboratory is equipped to determine heat transfer rate through conduction, convection and radiation. In addition also has air conditioning test rig, refrigeration test rig, transient heat conduction equipment and heat exchanger setup.



### **FLUID MECHANICS LABORATORY**

The Fluid Mechanics laboratory is equipped with impulse and reaction turbines, centrifugal blower, centrifugal and reciprocating pumps. The lab is also equipped with flow measuring devices such as Venturi meter, Notches, Orifice meter, friction in pipes test rig, Impact of jet on vanes setup.



### **DESIGN LABORATORY**

The Design laboratory is equipped with universal vibration tester for damped and undamped conditions, gyroscope, polariscopic, governor, whirling of shafts and journal bearing.

