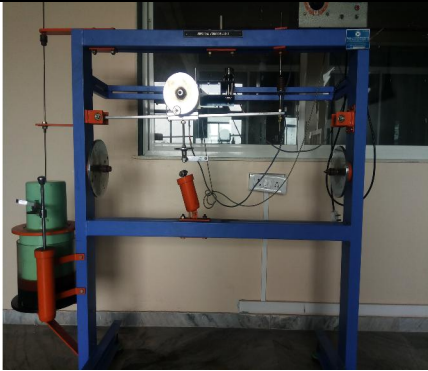




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## School of Engineering & Technology

Department of Automobile Engineering



### **Machine & Vehicle Dynamics Laboratory**

Machine & Vehicle Dynamics Laboratory is used for application based on advance course of Machine & Vehicle Vibrations systems. It is equipped with Universal Vibration Test Rig, Shock absorb test Rig, Whirling of Shaft Test Rig, Balancing unit, Vibrometer and Noise meter



### **Internal Combustion Engine Applied thermodynamics or IC Engine**

Laboratory is well equipped with the IC engines & compressor setup. IC engines consists of Computerized diesel engine setup & petrol engine setup. Different performance parameters of the engines can be work out here. Heat balance sheet can be prepared using the setups for different loads.



#### **Automotive Transmission**



Automotive Transmission laboratory is well equipped with various components of transmission system used in manual as well as automatic transmission system in automotive vehicle. It consists of various type of demo model like clutches, gear boxes, propeller shaft, and differential with axle arrangement. With the help of this laboratory students are able to demonstrate the constructional details and working of various components used in transmission system of vehicle. They are able to know the trouble shoot occurs in transmission line of vehicle.

#### **Automotive Electrical and Electronics Laboratory**

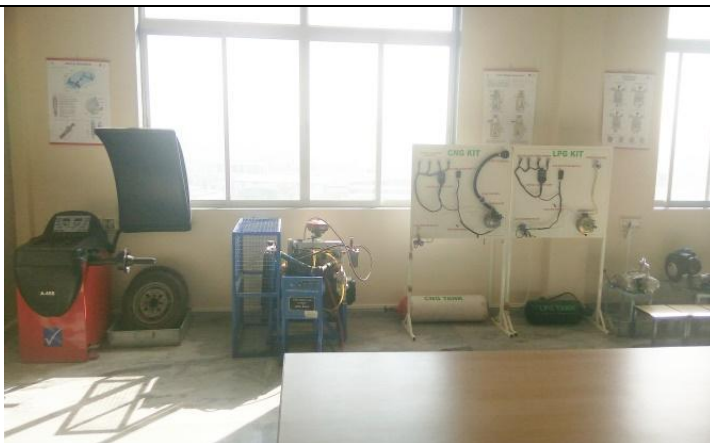


Automotive electrical and electronics laboratory is well equipped with various test set up like starter motor, alternator test bench, multifunction tester, spark plug cleaner & tester and battery testing equipment etc. This laboratory is useful to students for understanding constructional details and testing of various auto electrical and electronic components used in automotive vehicles with its characteristics. Also students are able to identify the faults in electrical and electronics system of vehicle with the help of on board diagnostic system i.e. KTS.



### **Vehicle Performance of Testing Laboratory**

Vehicle performance and testing laboratory is mainly equipped with Two Wheeler Chassis dynamometer test rig as well as vibrometer, noise meter, SI engine and CI engine model. etc. Chassis dynamometer test set up is used for testing of vehicle torque at each gear also it is useful to measure the fuel consumption, braking torque and acceleration performance of vehicle. Noise meter and vibrometer used to measure the performance of vehicle in terms of noise creation by vehicle and vibration at various location inside of vehicle.



### **Vehicle Maintenance & Service Practices**

This lab is used to explain vehicle maintenance & service practices related to vehicle. It is equipped with wheel balancing, two & four stroke two & four wheeler engine, various braking system, CNG & LPG kits of vehicle, different carburetors & various spare parts & accessories of vehicles for demonstration & practices.





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### **CAD-CAM Laboratory**

This lab is dedicated to the subjects like CAD/CAM and Automation, Computer Aided Machine Drawing, Numerical Methods and Optimization, CAE & Automation. It has been set up with good configuration computer systems, overhead projector with screen, plotter and printer along with high end software like ANSYS, CATIA, DELCAM and MATLAB



### **Metrology & Quality Control Laboratory**

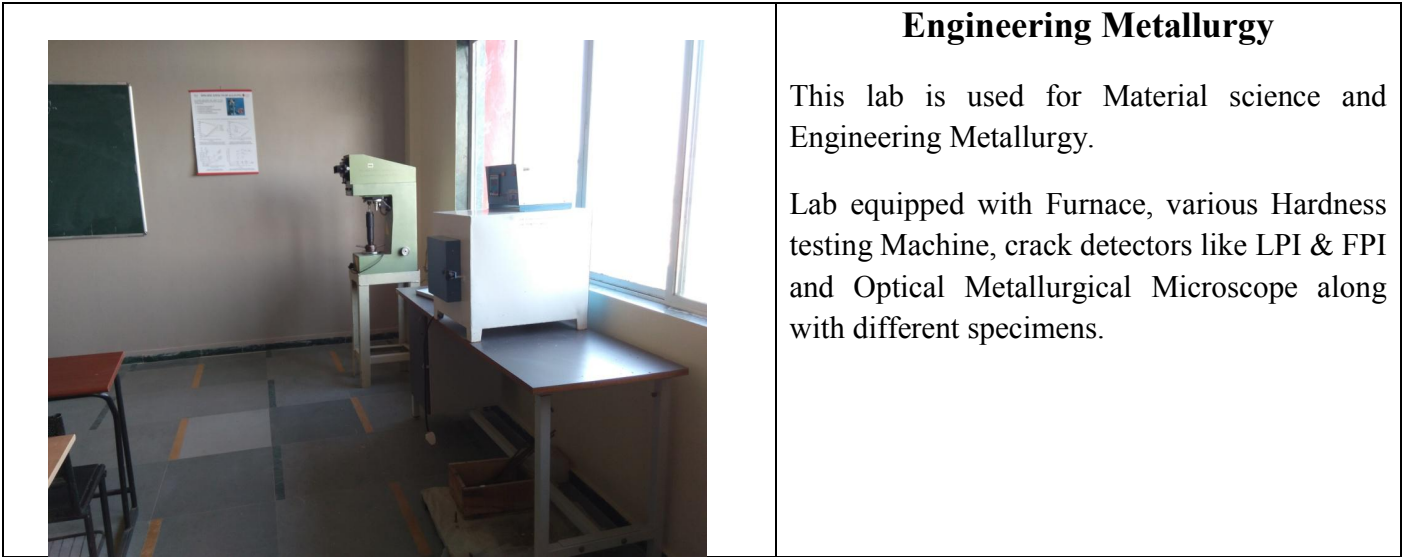
This Lab is designed to enrich the knowledge of the students as per requirement of industry regarding methods of instrument selection for quality checking, Understand and apply Quality Control Techniques. This Lab is Equipped with Profile Projector, Tool Maker's Microscope, Floating Carriage Measuring Machine, Surface Plate. Students can perform various experiments for calibration of Measuring instruments such as Comparators, Verifications of Dimensions, etc.



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### **Engineering Metallurgy**

This lab is used for Material science and Engineering Metallurgy.

Lab equipped with Furnace, various Hardness testing Machine, crack detectors like LPI & FPI and Optical Metallurgical Microscope along with different specimens.