

DEPARTMENT of MECHANICAL ENGINEERING

LABORATORIES

Creep Laboratory

Engr. Dr. Mohammad Javed Hyder,
DCE, Lab Incharge

In creep and Fatigue laboratory creep tests are conducted at room temperature using an indigenous apparatus which utilizes bimetallic test specimens and the electrical potential method.

Data Acquisition Laboratory

Syed Shabbir Ahmad,
DCE, Lab Incharge

Data Acquisition laboratory contains dedicated equipments for stress analysis using strain gages and a recently purchased data acquisition system. This is capable of collecting data of strains, temperatures etc. from engineering systems. The collected data can then be used for analysis.

Photomechanics Laboratory

Dr. Ishtiaq Ahmad,
PE, Lab Incharge

Photomechanics Laboratory contains transmission and reflection polariscopes along with their accessories.

Vibration Laboratory

This laboratory is currently being developed under the supervision of Dr. M. Javed Hyder. Presently contains Vibration Analyzer equipment with DDS Pro Software.

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Computational Mechanics Lab (CML)

Mr. Atique Ahmad,
SE, Incharge CML

CML contains following licensed software.

1. **ANSYS 10** (University Advanced)
2. **Fluent 6.2.16** (Educational Edition)
3. **Autodesk Inventor 10** (Educational Edition)
4. **Pro/engineer wildfire 3** (Educational Edition)
5. **MATLAB R2006b** (Classroom Version)
6. **CATIA v5r16** (Student Version)
7. **Maple 10** (Education Edition)
8. **MSC.ADMS 2005r2** (Education Edition)
9. **SimPack 8.6** (Education Edition)



View of the Computational Mechanics Laboratory

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Mechanical Engineering Laboratory (MEL)

Mr. Hafiz Laiq-ur-Rehman,
JE, Incharge MEL

Mechanical Engineering Laboratory is equipped with following facilities:

1. REYNOLD Number Experimental Apparatus
2. BERNOULLI Theorem Apparatus
3. Pressure Measurement Bench
4. Comparative Flow Measurement Apparatus
5. Hydraulic Bench Apparatus
6. Fluid Circuit Friction Apparatus
7. Multi-Pump Test Rig
8. Oil Hydraulic Experimental Apparatuses
9. Pneumatic Training Equipment
10. Thermal Conduction System
11. Electrically Heated Steam Boiler
12. Solar/Heat Source Vapor Turbine
13. Mass and Heat Transfer Unit
14. Double Pipe Heat Exchanger
15. Temperature Measuring Apparatus
16. Free and Forced Convection System
17. Film and Drop Condensation Apparatus
18. Process Feedback control study unit



Mechanical Engineering Laboratory

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CNC machines section

Mr. Hafiz Laiq-ur-Rehman,
JE, Incharge CNC Section

1. Emco educational lathe machine
2. Indigenously developed machines
 - i. PCB (Printed Circuit Board) punching machine
 - ii. 2½ axis milling machine



CNC Section