# Material Testing Laboratory

Faculty In Charge: Dr. Elsadig Mahdi
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### Buhler micro-hardness tester

Used for measuring hardness on very thin specimens, on different phases in microstructure, suface & case depth measurements of case hardened parts. Uses Vickers & Knoop Diamond indenters with max. load of 1 kg for microhardness measurements.

Room Number: Room 102/115/117, W.S

Category: Teaching Equipment

Courses: Failure Analysis, Corrosion Engineering, Material Science



### **Drop Impact Machine**

Used for measuring material behaviour under imapet of falling weight. It has a cpacity of 300 J and weigt falles from a height of 1m. Completely computerized controlled and has software for measuring energy, force and accleration measurements.

Category: Teaching Equipment

Courses: Failure Analysis, Material Science



### Instron Testing Machine of 250 KN capacity

This electromechanical system is used to determine tensile & compressive properties of metals & alloys. It is a fully Computerized system and tests can be performed & results & graphs are obtained using Merlin software installed in PC.

Category: Teaching Equipment

Courses: Failure Analysis, Material Science



### **Universal Hardness Testing Machine**

This machine provides the measurement of indentation hardness of metallic materials by application of loads which can be selected according to the hardness method used i.e.Vickers, Brinell and Rockwell. It is provided with LCD display which monitors the progress of test and displays digital values of the hardness of the metal

Category: Teaching Equipment

Courses: Failure Analysis, Material Science



### **Lloyd Tensile Testing Machine**

Tensile & Compressive tests can be performed. Results & Graphs are obtained using software provided.

Category: Teaching Equipment
Courses: Material Science



### **Creep Testing Machine**

The SM106 Creep Measurement Apparatus is a simple unit designed for demonstrating and investigating the creep characteristics of lead and polypropylene specimens at room temperature. A temperature module is provided to enable investigation of the effects of temperature on creep rate

Category: Teaching Equipment

Courses: Manufacturing Processes, Failure Analysis, Material Science



#### Universal Testing Machine of 100 KN capacity

Tensile & Compressive tests can be performed.

Category: Teaching Equipment

Courses: Failure Analysis, Material Science

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Fatigue Testing Machine(Old)

Fatigue Testing of metals

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# Leitz Micro-Hardness Testing Machine

Micro-hardness testing of metals

Category: Teaching Equipment

Courses: Failure Analysis, Material Science



# **Torsion Testing Machine (Old)**

Torsion testing of metals

Category: Teaching Equipment

Courses: Manufacturing Processes, Material Science



# **Rockwell Hardness Testing Machine**

Hardness testing of metals

Category: Teaching Equipment

Courses: Failure Analysis, Material Science



# **Brinnel Hardness Testing Machine**

Hardness testing of metals

Category: Teaching Equipment

Courses: Failure Analysis, Material Science