# Thermodynamics Laboratory

Faculty In Charge: Dr. Mohammed Al-Khawaja
Teaching Assistant In Charge: Eng. Ranees Muhammed



#### **Temperature Measurement Bench**

An apparatus with boiling water and ice baths and various temperature measuring instruments like liquid in glass thermometer, vapor pressure thermometer, thermister, thermocouples, platinum resistance thermometer etc. A calibrated standard platinum resistance thermometer is also available. Provision is there for data acquisition of most of the readings using datalogger and software.

Room Number: G 217, G 115

Category: Teaching Equipment

Courses: Engineering Measurements



## **Saturation Vapor Pressure Apparatus**

An apparatus used to study the saturation pressure-temperature relation of pure water. Provision is also for measuring the quality of the mixture. It also has data acquisition capability.

Category: Teaching Equipment
Courses: Thermodynamics I



## **Expansion Process of Perfect Gas**

An apparatus which can analyze various processes like adiabatic, isothermal etc of perfect gases. It can also verify ideal gas law. It has data acquisition capability.

Category: Teaching Equipment Courses: Thermodynamics I



#### **Pressure Measurement Bench**

Used to compare various pressure gauges like Bourdon Tube, Pressure transducers, U tub manometer, Inclined manometers etc. It has provision to compare delivery or suction pressure of a small air compressor fitted onto it. Dead weight tester can be used to calibrate the gauges.

Category: Teaching Equipment

Courses: Engineering Measurements, Fluid Mechanics



## **Calibration Rig**

This calibration rig has options to calibrate temperature, pressure and electric signals.

Category: Service Equipment

Courses: NA