

# Mechanical Vibration Laboratory

## Laboratory Information

Lab Name: Mechanical Vibration Laboratory

Room No.: 205 - Colleges of Engineering and Technology

Capacity: 20 students

The focus of the vibration lab is to build up student's capabilities to formulate and analyze problems of vibrations by using different types of sensors and techniques (e.g. velocity sensor and proximity sensor) where the trainees could improve their experience and technical knowledge concerning various related equipment. The lab current capabilities permit a variety of technical courses for engineers working in the field of vibration and design, mechanical vibration laboratory is shown in figure 1.19.

## Major Equipment

- Absolute Pressure Transducer.
- Blower (Compressed Air).
- Differential Pressure Transducer.
- Digital Vibration Controller.
- Extension Cable with Insulator.
- Flow meters for Liquids.
- Handy Oscilloscope Fluke.
- Hydro Scout Toil Cartridges.
- Industrial Accelerometer.
- Linear Strain Gauge.
- Low Frequency Accelerometer.
- Miniature Vibration Meter Device.
- Noise Level Meter.
- Portable Shaker System.
- Proximity Probe Driver.
- Proximity Sensor Calibrator.
- Proximity Sensor with Cable.
- Proximity Signal Conditioner.
- Seismic Accelerometer Sensor.
- Seismic Indicator Transmitter.
- Seismic Vibration Transmitter (Screw Mounting).
- Signal Conditioner for Remote Sensor.
- Signal Generator.
- Strain Gauges (Precision Strain).
- Tachometer Speed Range.
- Triaxial Accelerometer.
- Velocity Sensor (Screw Mounting).
- Velocity Transducer.
- Vibration Switch.

Laboratory Serves the following courses:

Course Code	Course Title	Semester
ME 458	Mechanical Vibration	6 <sup>th</sup>
ME 241	Experimental Methods	4 <sup>th</sup>



Figure 1.19 Mechanical Vibration laboratory



Figure 1.20 Pulse Module



Figure 1.21 Vibration fault kit