

INSTRUMENTATION AND CONTROL SYSTEMS LAB

LIST OF THE EQUIPMENTS

- 1) Pressure Gauges**
- 2) Transducer for Temperature Measurement**
- 3) LVDT Transducer for displacement Measurement**
- 4) Strain Gauge for the Measurement of Strain**
- 5) Thermocouple for Temperature Measurement**
- 6) Capacitive Transducer for Angular Measurement**
- 7) Resistance Temperature Detector for Temperature Measurement**
- 8) Rotameter for flow measurement**
- 9) Photo and Magnetic Speed Pickups for the measurement of speed**

Name of the Equipment:

Pressure Gauge Transducer

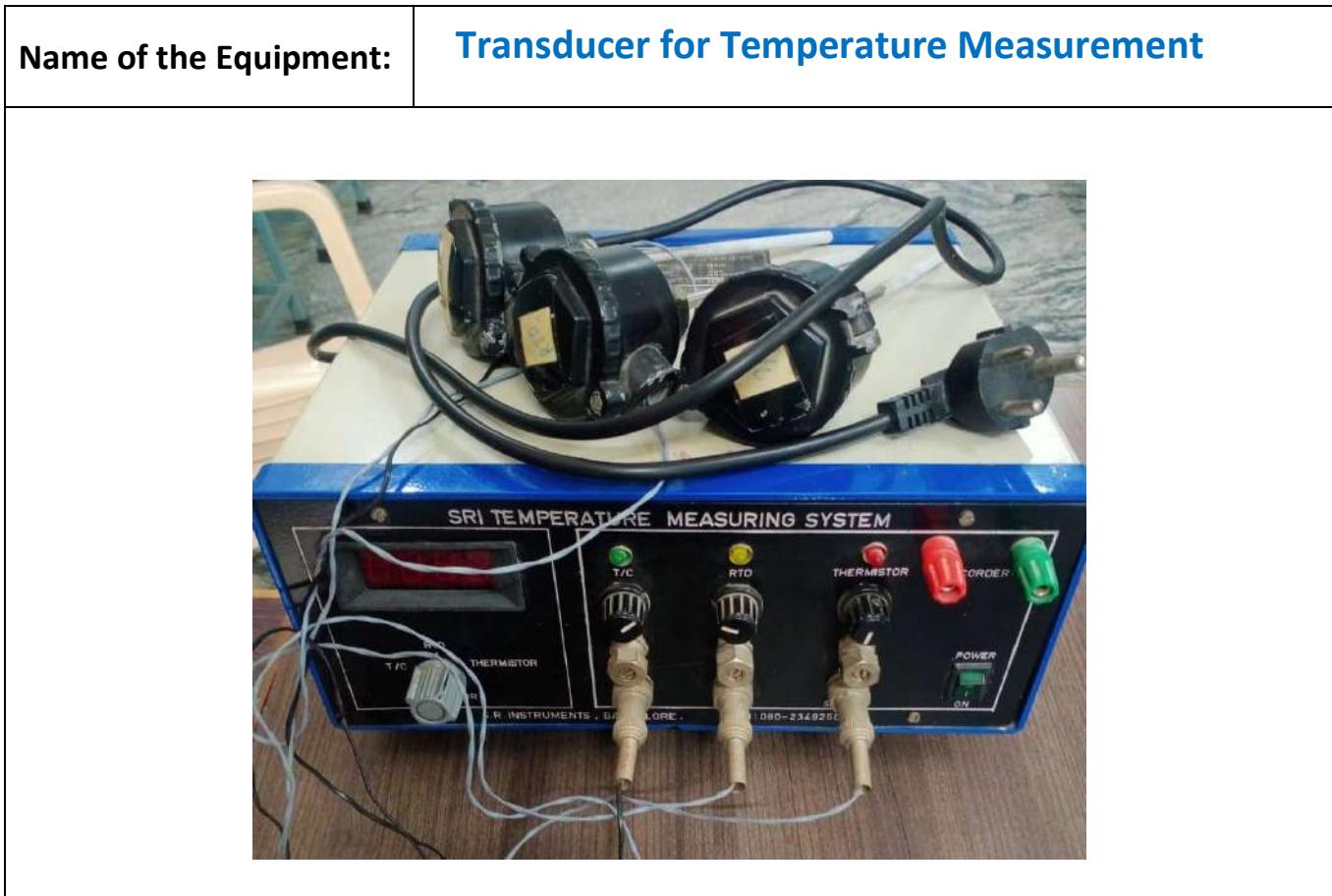


Specifications:

- 230V/50HZ AC supply

Experiments that can be conducted:

- 1) To determine the calibration of pressure gauge

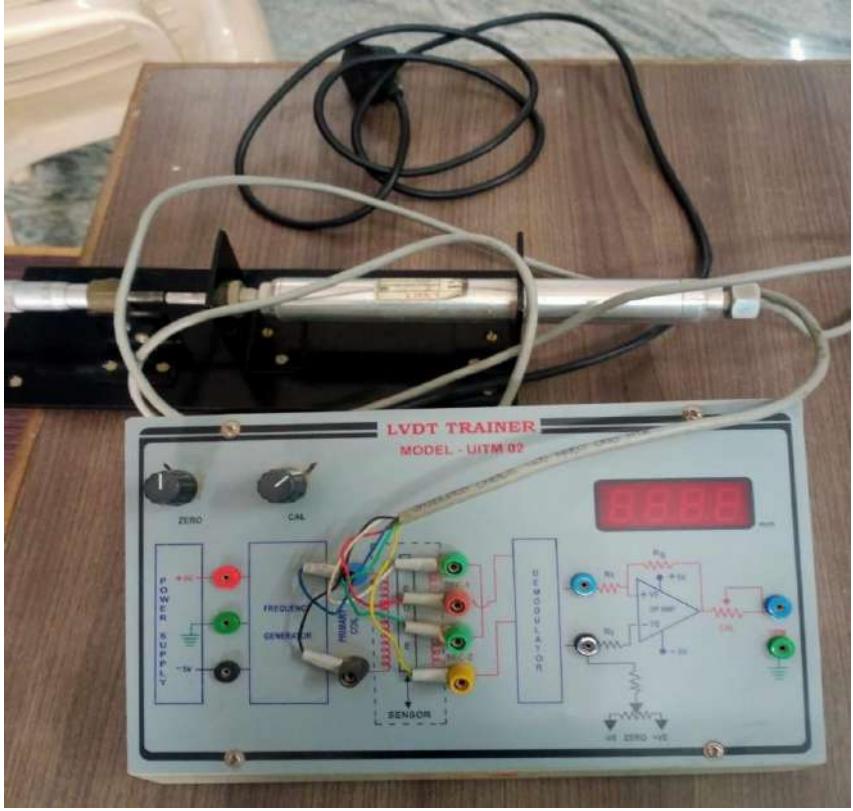


Specifications:

- PT 100
- Resistance value: 100 ohm at 00c

Experiments that can be conducted:

Calibration of Transducer for Temperature Measurement

Name of the Equipment:	LVDT Transducer
 A photograph of an LVDT Trainer Model - UITM 02. The unit is a light blue control panel with various knobs, buttons, and a digital display showing '8888'. It is connected to a black cylindrical LVDT sensor with several wires. The sensor is mounted on a wooden bench. The panel has sections labeled 'POWER SUPPLY', 'FREQUENCY GENERATOR', 'PRIMARY COIL', 'SECONDARY COIL', and 'DEMODULATOR'. A circuit diagram is printed on the right side of the panel.	

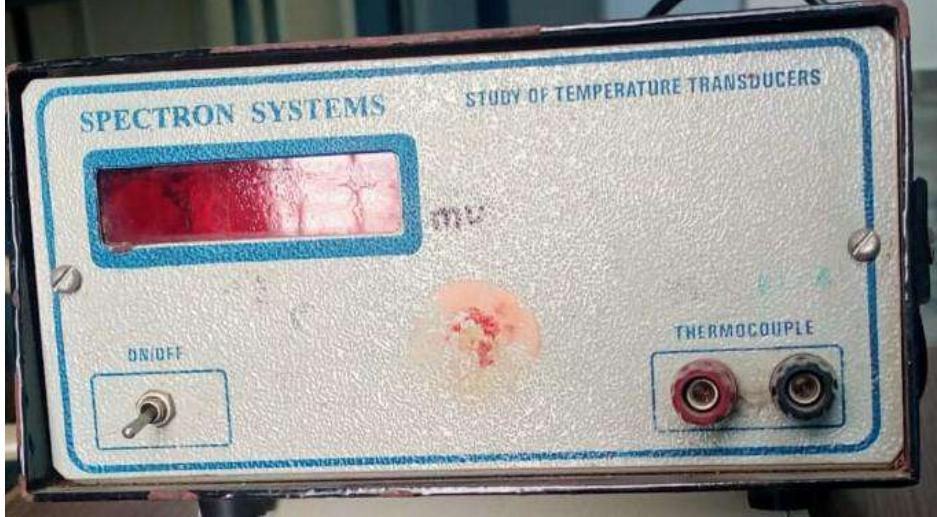
Specifications:

- Micrometer resolution 0.001mm

Experiments that can be conducted:

- 1) To determine the calibration of LVDT

Name of the Equipment:	Strain Gauge
	
Specifications:	
<ul style="list-style-type: none">• Cantilever beam 1kg capacity, width-45mm, length-355mm, thickness of the beam-3mm	
Experiments that can be conducted:	
<ol style="list-style-type: none">1) To determine the calibration of strain gauge for force measurement	

Name of the Equipment:	Thermocouple for Temperature Measurement
	
Specifications:	
<ul style="list-style-type: none">• Thermocouple probe j-type	
Experiments that can be conducted:	
<ol style="list-style-type: none">1) To determine the calibration Thermocouple for Temperature Measurement	

Name of the Equipment:	Capacitive Transducer
	
Specifications:	
	<ul style="list-style-type: none">Angular displacement 0° to 180°
Experiments that can be conducted:	<ol style="list-style-type: none">To determine the Capacitive Transducer for Angular Measurement

Name of the Equipment:	Resistance Temperature Detector
	
Specifications:	
<ul style="list-style-type: none">• Thermocouple range 0° to 150°	
Experiments that can be conducted:	
<ol style="list-style-type: none">1. To determine the Calibration of Resistance Temperature Detector for Temperature Measurement	

Name of the Equipment:	Rotameter
Specifications:	
Experiments that can be conducted:	<ul style="list-style-type: none">1) To determine the calibration of rotameter

Name of the Equipment:	Photo and Magnetic Speed Pickups
	

Specifications:**Experiments that can be conducted:**

To determine the calibration of Photo and Magnetic Speed Pickups