

Measurement Laboratory



Trainer Kit for Study of Strain Gauge

Strain Gauge:

If a metal conductor is stretched or compressed, its resistance changes on account of the fact that both the length and diameter of the conductor change. There is also a change in the value of resistivity of the conductor when it is strained and this property is called piezo resistive effect. This is the principle of strain gauge. Strain gauge is a device the electrical resistance of which varies in proportion to the amount of strain in the device. The most widely used gauge is the bonded metallic strain gauge.

This trainer kit is used for study of Strain measurement using strain gauges and cantilever assembly.



Trainer Kit for Study of LVDT

Scientech LVDT 2303 is designed to teach LVDT Characteristics. LVDT (Linear Variable Differential Transformer) is the most widely used inductive transducer for displacement measurement. LVDT is a secondary transducer which converts the displacement directly into an electrical output proportional to the displacement. Scientech 2303 has seven-segment LED display showing displacement in mm with a sensitivity of 10mV/mm in the range of 10mm.



Temperature Transducer Trainer Kit

The most commonly used type of the entire sensor are those which detect Temperature or heat. These types of sensors vary from simple ON/OFF thermostatic devices which control a domestic hot water system to highly sensitive semiconductor types that can control complex process control plants. Temperature Sensors measure the amount of heat energy or even coldness within an object or system, and can "sense" or detect any physical change to that temperature.

This trainer kit is used for study of transducers like digital IC LM-335, Resistive Temperature Detector (RTD), NTC Thermistor, K Type Thermometer.

Maxwell's Capacitance Bridge

This bridge kit is used for measurement of unknown inductance and in some cases unknown capacitance too. It works on AC bridge principle.



Wien Bridge Oscillator Trainer Kit

This trainer kit is utilized for measurement of unknown frequency by using various values of resistances along with use of standard capacitors.

Wheatstone Bridge

This is basic dc bridge use for measurement of unknown resistance by using other standard resistances.



Universal Bridge Trainer Kit

This trainer kit is used for study of various AC and DC bridges for measurement of unknown inductance, capacitance and resistance.