

**MT 443 INSTRUMENTATION LAB****Course Description & Objectives:**

To obtain adequate knowledge in design of various signal conditioning circuit and instrumentation systems.

**Course Outcomes:**

At the end of the course, the student would be able to understand concept of sensors and actuators. As well as students would be able to evaluate the applications of distributed control systems in process automation.

**List of Experiments****Section - A**

1. Measurement of displacement using LVDT.
2. Measurement of distance using LDR.
3. Measurement of temperature using R.T.D.
4. Measurement of temperature using Thermocouple.
5. Measurement of pressure using Strain Guage.
6. Measurement of pressure using Piezo-Electric Pick up
7. Measurement of distance using Capacitive Pick up.
8. Measurement of distance using Inductive Pick up.
9. Measurement of speed of DC Motor using Magnetic Pick up.
10. Measurement of speed of DC Motor using Photo Electric Pick up.

**Section - B**

1. Temperature (pressure, light intensity) data acquisition system and transport over ETHERNET
2. Parameter measurement using HART ,CAN, GPIB & PROFIBUSES.