



**SHRI VISHNU ENGINEERING COLLEGE FOR WOMEN:: BHIMAVARAM
(AUTONOMOUS)**

DEPARTMENT OF MECHANICAL ENGINEERING

INSTRUMENTATION LAB

Laboratory In-charge : Mr. Sk. Madhar Pasha

Laboratory Technician : Mr. KVSSSNRL Varma

OBJECTIVE:

Objective is to train the students, how to measure various significant parameters like pressure, Temperature, strain and velocity and also to calibrate those instruments used to measure above parameters. In this laboratory students are exposed not only to the mechanical instruments but also electrical and electronic instruments.



Lab Equipment:

S.No	Description	Stock	Cost (Rs)
1	Calibration of pressure gauge	1	65,000
2	Calibration of Transducer for Temperature	1	20,000
3	Calibration of LVDT	1	20,000
4	Calibration of Strain Gauge	1	28,000
5	Calibration of Thermocouple	1	28,000
6	Calibration of Speed using photo and magnetic sensors	1	56,000
7	Calibration of RTD	1	20,000
8	Calibration of Rotameter	1	25,000
Total			2,62,000

List of Experiments:

S.NO	NAME OF THE EXPERIMENT
01	a. Study the characteristics and working principle of Pt100 RTD
	b. Calibration of Pt100 RTD
02	a. Study the characteristics and working principle of J-type Thermocouple
	b. Calibration of J-type Thermocouple
03	Study and Calibration of NTC Thermistor
04	Study and Calibration of Strain Gauge
05	Study and Calibration of Pressure Gauge
06	a. Study of Photo Pickups for the measurement of Speed
	b. Study of Magnetic Pickups for the measurement of Speed
07	Study and Calibration of L.V.D.T. for the measurement of Linear Displacement
08	Study and Calibration of Rotameter for Water Flow Measurement