



SHRI VISHNU ENGINEERING COLLEGE FOR WOMEN:: BHIMAVARAM

(AUTONOMOUS)

DEPARTMENT OF MECHANICAL ENGINEERING

METROLOGY 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	VERNIER CALIPER 20 MM DIA	2	6,411
2	OUT SIDE MICROMETER	1	7,480
3	INSIDE CALIPER 5-30 MM	1	11,812
4	VERNIER HEIGHT GAUGE 12'' 300 MM	1	16,875
5	VERNIER DEPTH 150MM	1	6,187
6	DIAL BORE GAUGE35-60 MM	1	7,537
7	GEAR TOOTH MICROMETER	1	6,862
8	GEAR TOOTH VERNIER CALIPER	1	5,626
9	SPIRIT LEVEL	2	18,450
10	SINE BAR 200 MM	2	5,062
11	SLIP GAUGES (83 PIECES)	2	23,626
12	JAPAN GRANITR AND SURFACE PLATE	2	5,288
13	DIAL GAUGE INDICATOR0.001 MM	2	3,826
14	COMBINATION SET 12''/300 MM	2	8,325
15	V-BLOCK	2	6,300
16	BEVEL PROTRACTOR	1	12,825
17	ANGLE PLATE	1	5,512
18	MAGNETIC STAND	4	6,750
19	TOOL MAKERS MICROSCOPE	1	40,500
20	V-BLOCK (SET OF 2 NOS WITH CLAMPS)	1	2,457
21	METZ-301	1	1,404
22	METZ-302	1	1,404
23	METZ-303	1	1,404
24	METZ-304	1	1,404
Total			2,13,327

List of Experiments:

S. No.	NAME OF EXPERIMENTS
01	Measure the pitch and thread angle of a threaded profile by Tool maker's Microscope
02	Measure length, height and diameter by Vernier calipers, Vernier height gauge and Micrometer respectively
03	Measure internal diameter of cylinder bore using Dial bore indicator
04	Measure angle and taper of work piece using Bevel Protractor and Sine bar respectively
05	Measure thickness of gear teeth by using Vernier tooth calipers
06	Measure surface roughness by Talysurf instrument
07	Measure flatness of surface plate by using Spirit level
08	Perform Alignments tests