



MANAKULA VINAYAGAR INSTITUTE OF TECHNOLOGY

Kalitheerthalkuppam, Madagadipet, Puducherry - 605 107

DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING

Name of the lab: ELECTRICAL MACHINES LAB

Name of the Practical Course being Conducted:

SI No.	Name of the Practical Course	Department	Semester
1	Electrical machines – I	EEE	III
2	Electrical Engineering Lab	ECE	III
3	Electrical machines – II	EEE	IV
4	Electrical & Electronics Laboratory	MECHANICAL	III

List Of Equipment Available:

SL NO	DESCRIPTION	Quantity	Price /Unit	Total Cost
1	DC Rectifier, Input 3ph 415v, AC & Output 220V, DC 200A	1 Set	373800	373800
2	Auto Transformer 1ph, 230V/0-270V, 8A	6 Nos	5162	30972
3	Auto Transformer 1ph, 230V/0-270V, 20A	1 No	9790	9790
4	Auto Transformer 1ph, 240V/0-270V, 15A	1 No	8188	8188
5	Step-Down Transformer 1ph, 2 kVA, 230V/115V & 8.6A/17.4A	5 Nos	15130	75650
6	Step-Down Transformer 1ph, 3 KVA, 230V/115V & 13.1A/26A	4 Nos	21805	87280
7	Step-Down Transformer 1ph, 5 KVA, 230V/115V & 21.7A	1 No	25365	25365
8	Step-Down Transformer 3ph, 5KVA, 440/220V	4 Nos	30260	121040
9	Wattmeter (0-10/20A)(0-300/600V) UPF	20 Nos	1780	35600
10	Wattmeter(0-10/20A)(0-250/500V) UPF	2 Nos	1958	3916
11	Wattmeter(0-10/20A)(0-150/300V) UPF	10 Nos	2003	20030
12	Wattmeter(0-2.5/5A)(0-150/300V) LPF	2 Nos	4361	8722
13	Wattmeter(0-10/20A)(0-75/150V) UPF	10 Nos	2003	20030
14	Wattmeter (0-2.5/5A) (0-150/300/600V) LPF	10 Nos	4361	43610
15	Voltmeter (0- 300/600V) MI	15 Nos	1650	24750
16	Voltmeter (0- 500 V) MI	1 No	1246	1246
17	Voltmeter (0- 150/300 V) MI	15 Nos	1246	18690
18	Voltmeter (0- 125/250/500 V) MI	1 No	1246	1246
19	Voltmeter (0-250 V) MI	1 No	1246	1246
20	Voltmeter (0- 75/150 V) MI	5 Nos	1246	6230

21	Voltmeter (0- 75/150/300 V) MI	1 No	1291	1291
22	Ammeter (0-50/100A) MI	1 No	1246	1246
23	Ammeter (0-10/25/50A) MI	5 Nos	1246	6230
24	Ammeter (0-15A/30A) MI	3 Nos	1246	3738
25	Ammeter (0-2.5A/5A) MI	3 Nos	1246	3738
26	Ammeter (0-10A) MI	5 Nos	1246	6230
27	Ammeter (0-20A) MI	4 Nos	1246	4986
28	Ammeter (0-10A/20A) MI	20 Nos	1246	24920
29	Ammeter (0-125/250/500mA)MI	1 No	1246	1246
30	Tachometer Digital	10 Nos	3115	31150
31	Voltmeter (0- 300 V) MC	10 Nos	1650	16500
32	Voltmeter (0- 150/300 V) MC	15 Nos	1650	24750
33	Voltmeter (0- 30/60 V) MC	15 Nos	1650	24750
34	Ammeter (0-15/30A) MC	15Nos	1650	24750
35	Ammeter (0-2.5/5A) MC	10 Nos	1650	16500
36	Ammeter (0-2A) MC	15 Nos	1650	24750
37	Ammeter(0-10/20A) MC	10 Nos	1650	16500
38	Voltmeter (0- 600 V) MC	5 Nos	1650	8250
39	DC Shunt Motor # DC Shunt Generator (220V,19A#16A)	2 Set	106800	213600
40	DC Shunt Motor # DC Compound Generator (220V,19A#16A)	1 Set	106800	106800
41	DC Compound Motor with Mechanical Loading(220V,16A)	1 Set	57850	57850
42	DC Shunt Motor with Mechanical Loading(220V,16A)	2 Set	57850	115700
43	DC Shunt Motor # 1 Φ Alternator (220V,19A#14.6A)	1 Set	106800	106800
44	3 Φ Slip Ring Induction Motor with Mechanical Loading (440V,13A)	1 Set	64525	64525
45	3 Φ Squirrel Cage Induction Motor with Mechanical Loading (7.5A)	2 Set	23585	47170
46	DC Shunt Motor # DC Series Generator (220V,19A#16A)	1 Set	106800	106800
47	Synchroscope (144Sq,415V,3ph)	1 No	2447.5	2445.5
48	Power Factor Meter (0-5/10A) (0-5/250/500V)	1 No	3730	3730
49	Three Pointer Starter (Manual Type) 5 HP	5 Nos	2670	13350
50	Four Pointer Starter (Manual Type) 5 HP	1 No	2670	2670
51	Two Pointer Starter (Manual Type) 5 HP	1 No	2670	2670
52	Automatic Star – Delta Starter(15HP)	1 No	7120	7120
53	DPST Switch	15 Nos	801	12015
54	SPST Switch	7 Nos	400.5	2803.5
55	TPST Switch	20 Nos	1157	23140
56	TPDT Switch	2 Nos	979	1958

57	“Fuji” Make analog tachometer	2 Nos	7565	15130
58	Resistive Load 1ph,230V,25A	5 Nos	10680	53400
59	Resistive Load 1ph,20A (230V)	5 Nos	9790	48950
60	Resistive Load 1ph,115V,40A	2 Nos	9790	19580
61	Resistive Load 3ph,415V,25A	3 Nos	24920	74760
62	Rheostat 200ohms/1.7A (Single Tube)	18 Nos	1068	19224
63	Rheostat 220ohms/1.7A (Double Tube)	4 Nos	1290	5162
64	Rheostat 200ohms/2.8A (Double Tube)	4 Nos	2937	11748
65	Rheostat 1000ohms/1.2A (Double Tube)	4 Nos	2403	9612
66	Rheostat 100ohms/5A (Double Tube)	7 Nos	4094	28658
67	DC Series Motor with Mechanical Loading(220V,20A)	2 Set	57850	115700
68	1 Φ Induction Motor with Mechanical Loading (1.5KW,220V,9.9A)	2 Set	16465	32930
69	DC Shunt Motor # 3 Φ Alternator (220V,27.5A#7A)	4 Set	102350	409400
70	Auto Transformer 3ph, 415V, 20A	5 Nos	23852	119260
71	Two element wattmeter10/20A	2 Nos	3729	7458
72	Synchronous Motor with Mechanical Loading (440V,7A)	1 No	75650	75650
Total cost of the lab				30,96,695