

## ELECTRICAL ENGINEERING DEPARTMENT

### LIST OF EQUIPMENT IN EEM LAB

SL.NO.	NAME OF THE INSTRUMENT		SPECIFICATION
1.	3 $\phi$ Auto Transformer		415/415-470,15amp,15.P.3
2.	3 $\phi$ Resistive Load Box		1A $\times$ 4, .5 $\times$ 2
3.	Measurement of Displacement using LVDT		Input 220 V AC
4.	Measurement & control of Temp. Using Thermocouple		Input 220 V AC
5.	Torque measurement Trainer		Input 220 V AC
6.	Measurement of Strain using Strain Gauge		Input 220 V AC
7.	Pressure Measurement Module		Input 220 V AC
8.	Capacitive Pickup trainer		
9.	Regulated DC power Supply		0-5V ,0-10 A
10.	Schering bridge		Input 220 V AC
11.	Kelvin's Double Bridge		Input 220 V AC
12.	Anderson bridge		For self inductance
13.	Decade capacitive box		
14.	Portable Wheatstone bridge		
15.	Deflection galvanometer		Cat no. pl64
16.	Spectrum analyzer		
17.	Synchroscope		
18.	1 $\phi$ Auto Transformer		
19.	1 $\phi$ Load box		1 KW, 4 AMP,230V
20.	1 $\phi$ Load box		3 KW, 12 AMP,230V

21.	Current Transformer		5:1WPL,5VAMP,66KV
22.	Potential Transformer		230/110V, 66KV
23.	ResistanceTemp.Display		230V,50HZ
24.	AC AMMETER		0 – 10 AMP
25.	AC VOLTMETER		0 – 600 VOLT
26.	AC VOLTMETER		0 – 300 VOLT
27.	WATTMETER		0 – 600 V, 1200W
28.	WATTMETER		0 – 300 V, 300W,10A
29.	WATTMETER		0 – 230 V, 1200W
30.	ENERGYMETER		1 phase 2 wire , 240v,50 Hz
31.	MULTIMETER		0-1000V AC

**ELECTRICAL ENGINEERING DEPARTMENT  
LIST OF EQUIPMENT IN MACHINE & BEE LAB**

SI No.	NAME OF THE INSTRUMENT		SPECIFICATION
1	Main AC Incoming Pannel,		Voltage – 415 V 3 Phase, 50 Hz Amps – 100 A Rating – CMR
2	AC Distribution Panel		Volts– 415V, 3 Phase, 50 Hz.

			Amps – 100 A Rating – CMR
3	DC Rectifier Unit		<p><b>AC Rating</b> Voltage – 415 V AC Phase – 3 Frequency – 50 Hz Currents – 30 A Rating – CMR</p> <p><b>DC Rating</b> Voltage – 220 V DC Currents – 50 A DC Excitation– 220V DC Rating – CMR</p>
4	DC Distribution Panel		Volts - DC 230V Amps – 100 A Rating – CMR
5	DC Motor Alternator Set		<p><b>DC Shunt Motor</b> 5 HP, 1500 RPM 220 V, 18 A DC Excitation– 220V DC Rating – CMR IS - 4772</p> <p><b>Alternator</b> 3 KVA, 415 V, 3,5A, 3 Phase, 50 Hz, 1500 RPM Excitation– 220V</p>
<b>SI No.</b>	<b>NAME OF THE INSTRUMENT</b>		<b>SPECIFICATION</b>
6	DC Motor Alternator Set		<p><b>DC Shunt Motor</b> 5 HP, 1500 RPM 220 V, 18 A DC Excitation– 220V DC Rating – CMR</p>

			IS - 4772  <b>Alternator</b> 3 KVA, 415 V, 3,5A, 3 Phase, 50 Hz, 1500 RPM Excitation– 220V DC Rating – CMR
7	AC Machine Type – CSCR		1 HP, 1 – Ph, 50 Hz 220V, 5.5 A,1440 RPM,
8	AC Machine Type – Shaded Pole.		0,5 HP, 1 – Ph, 50 Hz, 220V, 2.2A, 1440 RPM, .
9	AC Machine Type – Repulsion		1 HP, 1 – Ph, 50 Hz 230V, 4.5 A, 1500 RPM, .
10	AC Machine Type - Universal		1 HP, 1 – Ph, 50 Hz 220V, 4.5 A,1500 RPM, .
11	DC Shunt Motor		1 HP, 1500 RPM, 220 V, 4A Excitation–220V DC Class – B, IS– 4772.
12	DC Motor – Generator Set		<b>DC Shunt Motor</b> 3 HP, 1500 RPM, 220 V, 12A, Excitation–220V DC Class – B, IS– 4772.  <b>DC Shunt Generator</b> 2 KW, 1500 RPM
<b>SI No.</b>	<b>NAME OF THE INSTRUMENT</b>		<b>SPECIFICATION</b>
13	DC Motor – Generator Set		<b>DC Shunt Motor</b> 2 HP, 1500 RPM, 220 V, 9A, Excitation–220V DC

			DC Shunt Generator 1 KW, 1500 RPM, 220 V, 4.5A, Excitation–220V DC
14	AC Induction Motors Set  (For Cascade Operation)		SR Induction Motor  3 HP, 3 – Ph, 50 Hz 415V, 5 A,1000 RPM  SC Induction Motor  3 HP, 3 – Ph, 50 Hz 415V, 4.5 A,  3000 RPM
15	DC Shunt Motor		2 HP, 1500 RPM, 220 V, 6.8A, Excitation–220V DC
16	DC Compound Motor		2 HP, 1500 RPM, 220 V, 6.8A,
17	3 $\phi$ Induction Motor		3 $\phi$ , 415 V, 50 Hz  Type - SC  Name Plate Data Not Available
18	3 Phase Synchronous Motor		5 HP, 3 – Ph, 50 Hz

			415V, 6 A, 1500 RPM Excitation– 120V DC
19	Winding Study Motor		3 $\phi$ Induction Motor  3 HP/2.2KW, 50 Hz 415V, 4.5 A,  720/2885 RPM

SI No.	NAME OF THE INSTRUMENT		SPECIFICATION
20	3 $\phi$ Slip Ring Induction Motor		2 HP, 3 – Ph, 50 Hz 415V, 4.2 A,  1450 RPM
21	AC Motor – DC Generator Set		3 $\phi$ Induction Motor 0.5 HP, 110 V, 50 Hz, 1.6 A 1475 RPM.  DC Generator 0.5HP, 110V,3Amps. 1500 RPM Shunt Field –110 V Comp field– 3A max
22	Coupled AC Motors		3 $\phi$ /1 $\phi$ Alternator Voltage – 150/75 V Frequency – 50 Hz Currents – 1.5 / 3 A 1450 RPM,0.5 HP Excitation– 60 V DC. KW – 350 Watts

			3 $\phi$ AC Slipring / Synchronous Motor No Name Plate data Available.
23	AC Series / Repulsion Motors		0.5HP, 1 $\phi$ , 110 V, 3Amps. 3000 RPM
24	3 $\phi$ /1 $\phi$ Induction Motor		Voltage – 150/75 V Currents – 1.5/3 A KW – 350 KW Frequency – 50 Hz Excitation – 60 V DC
25	1 $\phi$ Transformer		1 KVA, Input – 220V, 50 Hz, Output – 50%, 86.6%, 100%. 4.5 Amps.
<b>SI No.</b>	<b>NAME OF THE INSTRUMENT</b>		<b>SPECIFICATION</b>
26	3 $\phi$ Transformer		2KVA, 415V / 415 V, 50 Hz, 2.8 Amps.
27	3 $\phi$ Inductive Load		415 V, Variable
28	3 $\phi$ Load Box		0.5A / 1.0A
29	1 $\phi$ Load Box		220V, 2 KW, 200W PER STEP
30	3 $\phi$ Auto Synchronous Panel		415 V, 5HP.
31	Power Panel Board		415V / 110 V 3 Phase, 50Hz.
32	Regulated Power Supply Unit		0 TO 30 V DC. 0 –5 Amps
33	1 $\phi$ Variac		10 Amp, Type-10.P.I

<b>ELECTRICAL ENGINEERING DEPARTMENT</b>			
<b>LIST OF INSTRUMENTS IN NETWORKS &amp; DEVICE LAB</b>			
<b>SL.NO.</b>	<b>NAME OF THE INSTRUMENT</b>		<b>SPECIFICATION</b>
1.	Passive Filter trainer		
2.	Function generator		

3.	Single & double tuned amplifier		
4.	Regulated DC power supply		Input -1 $\phi$ 230V AC
5.	1 Phase Variac		Input -1 $\phi$ 230V AC
6.	3 Phase Variac		
7.	3Phase Load box		INPUT-3 $\phi$ 440V
8.	DC Ammeter		0 - 10 m A
9.	DC Ammeter		0 -50 m A
10.	DC Ammeter		0 – 100 m A
11.	DC Ammeter		0 – 2 A
12.	DC Ammeter		0 – 5 A
13.	DC Ammeter		0 – 10 A
14.	AC Ammeter		0-2 A
15.	AC Ammeter		0-5 A
16.	AC Ammeter		0-10 A
17.	AC Ammeter		0- 30 A
18.	DC Voltmeter		0 – 50 m V
19.	DC Voltmeter		0 – 100 m V
20.	DC Voltmeter		0 – 250m V
21.	DC Voltmeter		0 – 50 V
22.	DC Voltmeter		0 – 300 V
23.	DC Voltmeter		0 – 600V
24.	DC Voltmeter		0 – 1000V
25.	AC Voltmeter		0 – 50 V
26.	AC Voltmeter		0 – 100 V
27.	AC Voltmeter		0 – 300 V



# ***ELECTRICAL ENGINEERING DEPARTMENT***

## ***LIST OF EQUIPMENT IN POWER ELECTRONICS LAB***

28.	AC Voltmeter		0 – 500 V
29.	AC Voltmeter		0 – 600 V
30.	Wattmeter		600 V, 6/10 A,600/1200 W
31.	Wattmeter		600 V, 5/10 A,1500/3000 W
32.	Wattmeter		0 – 150 W
33.	Rheostats		13 OHM, 8.5 AMP
34.	Rheostats		22 OHM, 6 AMP
35.	Rheostats		24 OHM, 6.5 AMP
36.	Rheostats		38OHM, 5 AMP
37.	Rheostats		60 OHM, 4.2 AMP
38.	Rheostats		100 OHM, 2.8 AMP
39.	Rheostats		130 OHM, 3.3 AMP
40.	Rheostats		140 OHM, 2.5AMP
41.	Rheostats		710 OHM, .6 AMP
42.	Rheostats		295 OHM, 2AMP
43.	Rheostats		220 OHM, 1 AMP
44.	Rheostats		100 OHM, 3 AMP
45.	Rheostats		24 OHM, 6.5 AMP
46.	Rheostats		22 OHM, 6 AMP
47.	Rheostats		9.4 OHM, 10 AMP
48.	Digital Multimeter		
49.	Transformers		1- $\phi$ ,220V,4.5A,1 KVA

SL.NO.	Name of the Instrument		SPECIFICATION
1.	Ujt Controlled Scr Time Delay Ckt.		
2.	1- $\phi$ Triggering Module.		
3.	1- $\phi$ Device Module.		
4.	Scr, Diac, Triac Characteristics Study & Ujt Triggering Module.		
5.	Oscilloscope		
6.	Diff. Gate Firing Module.		
7.	Thyristor Forced Commutation Trainer.		
8.	Cosine Firing Ckt. For Scr Converters.		
9.	Chopper Firing Module		
10.	L – C Module.		
11.	Device Module.		
12.	1- $\phi$ Cyclo - Converter Module.		
13.	Series Inverter		
14.	Powerscope		
15.	3- $\phi$ Half & Full Controlled Converter, Ac Regulator Module		
16.	Triggering Control Ckt.		
17.	Parallel Inverter.		
18.	Regulated Dc Power Supply.		24V, 5 A
19.	Igbt Based 4 Quadrant Chopper Drive.		For PMDC Motor, 24 V, 2 A.
20.	Regulated Dc Power Supply.		30V, 2 A
21.	Igbt Based 3- $\phi$ Pwm. Inverter		For 3- $\phi$ 415 V, 0.5 HP, IM
22.	Regulated Dc Power Supply.		300V, 4 A
23.	SCR Based Series Inverter		
24.	Powerscope		
25.	Digital Storage Oscilloscope		50 MHz

26.	Spectrum Analyzer		20MHz
27.	Regulated AC Power Supply		
28.	Squirrelcage Induction Motor		
29.	3- $\Phi$ Induction Motor		
30.	PMDC Motor		
31.	DC Ammeters		0-1 mA
32.	DC Ammeters		0-10 mA
33.	DC Ammeters		0-50 mA
34.	DC Volt Meters		0-50 mV
35.	DC Volt Meters		0-50 V
36.	DC Volt Meters		0-100 V
37.	DC Volt Meters		0-300 V
38.	AC Volt Meters		0-50 V
39.	AC Volt Meters		0-600 V
40.	Rheostarts		50 Ohm,4A
41.	Rheostarts		220 Ohm,1A
42.	Rheostarts		2360 Ohm,0.6A
43.	Rheostarts		4140 Ohm,0.7A
44.	Digital Multimeter		
45.	Digital Tachometer		
46.	Crocodile Chord		
47.	BNC To BNC Chord		

**ELECTRICAL ENGINEERING DEPARTMENT  
LIST OF EQUIPMENT IN PS LAB**

SI No.	NAME OF THE INSTRUMENT		SPECIFICATION
1	AC distribution panel		415V AC
2	Variable DC source/ Rectifier		Input: 415V AC
3	Synchronizing Panel		For 3PH Alternator
4	Insulating oil Tester		20V/220V 1-Phase

5	Relay Test Set		230V, 1 $\phi$ , 50Hz,
6	IDMT OC Relay with Test Kit		
7	% Biased Differential Relay With Test Kit.		
8	Analog PID Controller Trainer.		Type - VAPCT
9	Analog PID Controller Trainer.		Type - VAPCT
10	Linear System Stimulater		Type – VLSS - 01
11	Linear System Stimulater		Type – VLSS - 01
12	2 Phase AC Servomotor Speed Control & Tr. Func. Study Trainer.		Type – PEC – 00A
13	AC Synchro Transmitter & Receiver		
14	AC Synchro Transmitter & Receiver		
15	Transmission line parameter Measurement module		
16	Transmission line module		
17	Load set up for Transmission line module		
18	Input ac source		
19	Potential error detector		
20	Function generator		
21	Temperature control system		
22	Digital PID controller		
23	DC Position control system		

**ELECTRICAL ENGINEERING DEPARTMENT  
LIST OF EQUIPMENT IN PS LAB**

SI No.	NAME OF THE INSTRUMENT		SPECIFICATION
24	Lead Lag network		
25	DC Motor- Alternator set		<u>DC Motor</u> 5HP, 1550 rpm, 220v, 18 amp MC/No. ECO708.3253  <u>3<math>\phi</math> alternater</u> 3KVA,1500RPM 415V,3.4amp V-220v,50hz  <u>DC MOTOR(SHUNT)</u> 7.5HP,1500 RPM 220V,27 AMP ECO708.3256
26	3 $\phi$ Load box		3 $\phi$ 415V AC/DC 7.5 KW

27	Stepper Motor unit		Model- sm-03
28	VOLTMETER(AC)		0-600 V
29	VOLTMETER(AC)		0-500 V
30	VOLTMETER(AC)		0-100 V
31	VOLTMETER(AC)		0-50 V
32	VOLTMETER(DC)		0 – 100 V
33	AMMETER(AC)		0-5 A
34	AMMETER(AC)		0-10 A
35	AMMETER(AC)		0-2 A
36	AMMETER(AC)		0-30 A
37	AMMETER(DC)		0-2 A
38	AMMETER(DC)		0-10 A
39	AMMETER(DC)		0-30 A
40	AMMETER(DC)		0-100 A
41	WATTMETER		0-300 W
42	WATTMETER		0-3000 W
43	MULTIMETER		