

**POWER SYSTEM SIMULATION LAB:**

Area of the Lab : 15.25 X 8.54 X 3.66 Sq.m.

S.No.	Name of the equipment with specification	Quantity available (Nos.)
1	IBM Server Single Intel xeon @ 3.0 Ghz processor, 800 mhz FSB/2 MB cache/ Dual CPU capable 1GB ECC DDR 5D Ram 1.44 MB FDD/ 48*CD Rom drive 73.4 GB ultra 320 Scsi harddisk drive integrated dual channel U320 scsi controller (10000 Rpm, hot swap, Raid 1 capable), IBM KB/ IBM std/ Mouse/ std. Gigabit E-net, Roundar power supply, 15” IBM digital color monitor.	1
2	LINUX Server	1
3	Client 1. IBM Lenovo Think Centre: Intel Pentium D @ 2.8 Ghz Dual core cpu (EM64 800 MHZ PSB, 2*1 mb cache) Intel 945 GZ core chipset mother Board Integrated Gigabit Ethernet controller 512 MB DDR2 Ram @ 533 mhz fsb 48*cd drive / 80 GB SATA (7200 Rpm) HDD/IBM KB / Optical mouse / MICRO server 15 CRT color monitor. 2. HP : model – E7200 - Intel core 2 Duo E7200 processor. Intel G33 chipset MBD 1 GB DDR -2 RAM 160 GB SATA HDD HP KBD \$ optical mouse HP 17”TFT LCD monitor. 3. WIPRO: MODEL – Corei3 - 2120 CORE –i3-2100 3.10 Ghz 3MB/320GB SATA 2 7200 RPM HDD/2*2GB DDR3 1383 memory/TFT-18.5 WIDE –TFT-TCO-W/MOUSE-USB 2BTNW 4. WIPRO: MODEL – Corei3 – 3220 Core i3-3220, 3.3 Ghz, 3mb L2cache, Intel H6, chipset, 4 GB DDR3RAM, 500 GB SATA HDD,18.5 wide TFT monitor/multimedia keyboard /optical mouse min.* SNGL preloaded.	44
4	Projector: 1.Infocus Projector 2.Sanyo Projector 3.Sanyo LCD Projector 4.EIKI projector	4
5	Printers Samsung ML 1640 Laser printer - 02 HP Laser Jet P1606dn -01 Dot Matrix Printers -02	5
6	Scanner HP Scanner G2410	2

7	UPS Liebert Emerson 6.0 KVA Online UPS	2
8	ETAP software version 12.6 version	10 users
9	Power world simulator software	Unlimited
10	D-Link DGS 1024D Ethernet Switch 10/100/1000 Mbps	3
15	DVD writer	1

**ELECTRONIC DEVICES AND CIRCUITS LAB:**

**Area of the Lab : 130.235 Sq.m.**

S.No	Equipment Name	Quantity
1	Cathode Ray Oscilloscope	04
2	Function Generator	04
3	<u>Ammeter</u>  0-50mA}& 0-250 $\mu$ A} $\Xi$ 6,0-5 mA -4 0-1 mA-2 0-500 $\mu$ A -01,0-50 $\mu$ A – 10 0-50mA - 06	29
3	<u>Voltmeter</u> 0-1v& 0-30v	32
4	RPS(0-50V) Dual	02
5	<b><u>Kits:-</u></b> Semiconductor & zener diode, CE&CB, JFET, UJT, SCR, Half& Full wave, Differential, Series & Parallel Resonance, Passive filter, Photo Diode&PhotoTransistor-2	20

**Electric Circuits Lab :**Area of the Lab : 130.235 Sq.m.

S.No	Name of the equipment with specification	Quantity
1	Digital Multimeter	10
2	<u>Rheostats</u> 1180 $\Omega$ /0.8A/1 to 3 ,100 $\Omega$ /5A/1 to 3,640 $\Omega$ /1.2A/1 to 3, 3000 $\Omega$ /0.5A/1 to 3, 640 $\Omega$ /1.2A/1 to 3,300 $\Omega$ /1.5A/1 to 3 900 $\Omega$ /1.2A/1 to 2 , 1100 $\Omega$ /1.2A/1 to 2,1800 $\Omega$ /1.2A/1 to 2, 3000 $\Omega$ /0.5A/1 to 2	26
3	Auto Transformer	04
4	<u>Electrical Bridges:</u> Wheatstone, Maxwell, Schering Series AC& DC Circuit Trainer Kit, Coupled Circuit Trainer Kit	Each 01
5	1 ph Energy Meter	01
6	<u>Ammeter</u> 0-0.5A -2 , 0-100mA -6 ,0-10 mA -3 , 0-5 A -1 0-25 mA-5 , 0-5 mA-2,0-200 mA -3 , 0-0.5A -6 0-100mA-2 , 0-10mA -2 ,0-100mA-6 , 0-10mA-3	41
7	<u>Voltmeter</u> 0-15 v ,0-30 v ,0-500 v,0-15/30v ,0-10v ,0-30v	17
8	Analog multimeter	02
9	Digital LCR Meter	01
10	Frequency Meter	01
11	RPS (0-30)v	12
12	DIB	06
13	DRB	08
14	DCB	06
15	Galvanometer	05
16	Function Generator	05
17	Breadboard	10
18	Servo Stabilizer-5kvA	01
19	IC Trainer Kit	03
20	Sine/Square wave generator	04
21	Digital Wattmeter	03
22	Cathode Ray Oscilloscope	06
23	Auto LCR Meter	01
24	Wall Clock	01

25	Twoport network kit	02
26	3ph Loading Rheostat 3W	02
27	Wattmeter 5/10 A UPF&LPF	04
28	8 port switch	02
29	Computer System	02

**ELECTRICAL MACHINES LAB:**

**Area of the Lab : 260.47sq.m.**

<b>S.No.</b>	<b>Name of the equipment with specification</b>	<b>Quantity available (Nos.)</b>
1	Electrical Panel board	1
2	Cubical panel board	1
3	Synchronous Motor	1
4	DC Shunt motor	1
5	DC Shunt motor	1
6	DC Shunt motor	1
7	DC Series Motor	1
8	DC Shunt motor coupled to DC Shunt generator	1
9	DC Shunt motor coupled to DC Shunt Generator	1
10	DC Shunt motor coupled to DC Compound Generator	1
11	DC Shunt motor coupled to DC Compound Generator	1
12	3 Phase Induction motor	1
13	3 Phase Induction motor	1
14	1 Phase Slipring Induction motor	1

15	1 Phase Induction motor	1
16	1 Phase Induction motor	1
17	DC Shunt Motor coupled with AC Alternator	1
18	DC Shunt Motor coupled with AC Alternator	2
19	DC Shunt Motor coupled with AC Alternator	1
20	DC Shunt Motor coupled with Induction Generator	1
21	DC Rectifier unit	1
22	1 phase DC Rectifier unit	2
23	1 Phase Transformer	3
24	1 Phase Transformer	1
25	1 Phase Transformer	3
26	3 Phase Transformer	1
27	3 Phase Transformer	1
28	Loading Rheostat	3
29	Rheostat	22
30	Loading Rheostat	2
31	Loading Rheostat	1
32	Loading Rheostat	1
33	Digital multi meter	2
34	Digital multi meter	1
35	Digital multi meter	3
36	Digital multi meter	3
37	Digital Tachometer	2

38	Non contact Tachometer	1
39	Digital Tachometer	3
40	Digital Tachometer	4
41	Digital Tachometer	5
42	Auto Transformer1phase	4
43	Auto Transformer3phase	2
44	Auto Transformer3phase	2
45	Auto Transformer1phase	5
46	30Amps DPST Switch	14
47	30Amps DPST Switch	7
48	30Amps TPST Switch	14
49	30Amps TPST Switch	3
50	Brass Terminal bolt	175
51	Brass Terminal bolt	111
52	Moving iron AMMETER	3
53	Moving iron AMMETER	4
54	Moving iron AMMETER	3
55	Moving iron AMMETER	2
56	Moving iron AMMETER	3
57	Moving iron AMMETER	3
58	Moving iron AMMETER	5
59	Moving iron AMMETER	3
60	Moving iron VOLT METER	3

61	Moving iron VOLT METER	2
62	Moving iron VOLT METER	5
63	Moving iron VOLT METER	2
64	Moving iron VOLT METER	5
65	Moving iron VOLT METER	2
66	Moving iron VOLT METER	2
67	Moving COIL Ammeter	4
68	Moving COIL Ammeter	3
69	Moving COIL Ammeter	3
70	Moving COIL Ammeter	2
71	Moving COIL Ammeter	2
72	Moving COIL Ammeter	5
73	Moving COIL Ammeter	4
74	Moving COIL Ammeter	3
75	Moving COIL VOLTMETER	2
76	Moving COIL VOLTMETER	3
77	Moving COIL VOLTMETER	3
78	Moving COIL VOLTMETER	3
79	Moving COIL VOLTMETER	5
80	Moving COIL VOLTMETER	1
81	WATT METER	2
82	WATT METER	2
83	WATT METER	2

84	WATT METER	2
85	WATT METER	2
86	WATT METER	2
87	WATT METER	2
88	WATT METER	2
89	WATT METER	5
90	WATT METER	2
91	WATT METER	3
92	WATT METER	2
93	WATT METER	6
94	WATT METER	5
95	CONTACTOR	1
96	Rubber mat	2
97	Sprit level	1
98	Knife switch	20
99	Frequency Meter	2
100	Frequency Meter	1
101	Power factor meter	1
102	Power factor meter	2
103	Digital insulation tester	1
104	Winding study motor	1
105	Loading Inductor	1
106	Loading Inductor	2



107	Loading capacitor	1
108	Rheostat	3
109	Rheostat	3
110	Rheostat	3
111	Rheostat	3
112	Rheostat	2
113	Synchronising Panel	2
114	Phase sequence indicator	1
115	DC SHUNT MOTOR SYNCHRONOUS MOTOR	1
116	Water loading rheostat	5
117	DC COMPOUND MOTOR	1
118	3 Point starter	5
119	4 Point starter	5
120	Synchronus Induction motor starter	1
121	DOL STARTER	3
122	3 PHASE DOL STARTER	1
123	STAR DELTA STARTER	3
124	Stator Resistance Starter	4
125	RL LOAD	5
126	Auto transformer starter	3
127	Moving coil ammeter	1
128	Moving iron ammeter	1
129	Panel mount digital tachometer	5

130	Watt meter	6
131	Blower	1
132	Moving coil Volt meter	2
133	Moving coil Volt meter	2
134	POLE CHANGING MOTOR	1
135	Moving coil ammeter	2

**MEASUREMENT & INSTRUMENTATION LAB:**

**Area of the Lab :156.28sq.m**

<b>S. No.</b>	<b>Name of the equipment with specification</b>	<b>Quantity available (Nos.)</b>
1	Rectfier Unit (Input-415V,3phase 50HZ, Output-)-220V,Capacity-30A)	1 No
2	Rheostats 1200 ohm/0.6A	3 No
3	Rheostats 1000 ohm/0.8A	3 No
4	Rheostats 900 ohm/1.2A	2 Nos
5	Rheostats 640 ohm/1.3A	3 Nos
6	Rheostats 520 ohm/1.4A	3 Nos
7	Rheostats 300 ohm/1.8A	4 Nos
8	3 Point DC Starter	4 Nos
9	AC Voltmeter MI (300/600V)	5 Nos
10	Single phase Energy meter	2 Nos
11	3 phase Energy meter (Electronc type)	1 NO
12	3 phase Energy meter setup	1 No
13	3 phase Energy meter Disc type (30to 60 A)	1 No
14	ATE make-1 phase box tybedimmerslat capacity- 10A	3 Nos
15	ATE make-3 phase box tybedimmerslat capacity- 10A	3 Nos
16	Anderson Bridge	2 Nos
17	Maxwell Bridge	2 Nos
18	Kelvin Double Bridge	2 Nos
19	Wetstone Bridge	2 Nos
20	Maxwells Induction Bridge	1No
21	DPDT Switch	2 Nos
22	DPST Switch	4 Nos
23	SPST Switch	4 Nos

24	TPST Switch	2 Nos
25	CRO	1 No
26	Multimeter	3 Nos
27	Operational Amplifier Kit	2 Nos
28	Thermocouple	1 No
29	LVDT	2 Nos
30	A/D Converter	3 Nos
31	D/A Converter	3 Nos
32	Torque Cell	2 Nos
33	Digital IC Torque Measurement	2 Nos
34	1 phase UPF Wattmeter	2 Nos
35	Ac Ammeter 0-2.5/5/10A	3 Nos
36	Ac Ammeter 0-5/10/20A	3 Nos
37	Ac Ammeter 0-100mA	5 Nos
38	Ac Ammeter 0-500mA	5 Nos
39	AC Voltmeter	5 Nos
40	DC Voltmeter	5 Nos
41	PLC KIT	1 No
42	Linearation trainer kit	1 No
43	Digital storage oscilloscope	1 No
44	Digital storage oscilloscope	1 No
45	Power Factor Meter	2 Nos
46	Instrumentation Amplifier	2 Nos
47	Transients Trainer (RLC)	2 Nos
48	Transduser Trainer - Potentiometer	2 Nos
49	Pressure measurement trainer kit	2 Nos
50	Bourden Pressure Transduser Kit	1 No
51	Galvano Meter	1 No
52	Liberty Kinderman Alpha-250 Over Head projector	1 No
53	Liberty 285 Deluxe Over Head projector	1 No
54	Stop Watch	1 No

55	RTD Module (ITB-06-CE)	1 No
56	Flow Measurement Trainer (VFMT-01)	1 No
57	Strain Measurement Trainer (ITB-0017-CE)	1 No
58	LDR/PHOTO DIODE/PHOTO TRANSISTER Trainer (ITR-027-CE)	1 No

**CONTROL SYSTEM LAB:**

Area of the Lab :156.28.47sq.m

<b>S. No.</b>	<b>Name of the equipment with specification</b>	<b>Quantity available (Nos.)</b>
1	CRO Modal:(HM203G)	3 Nos
2	Digital LCR Multimeter	2 Nos
3	Function Generator	3 Nos
4	Decade Resistance box	3 Nos
5	Decade Capacitance box	3 Nos
6	Decade Inductance box	3 Nos
7	IC Trainer Kit	2 Nos
8	Stop Clock	3 Nos
9	Stop Clock (Racer)	1 No
10	Programmable logic Controller	1 No
11	Shunt Motor (0.5 hp)	2 Nos
12	Motor-Generator set	2 No
13	Speed Measurement Trainer kit	1 No
14	Bread Board	10 Nos
15	Current Transformer (0-5/10/20A)	5 Nos
16	Digital Multimeter	5 Nos
17	Vartech –Make dual Regulated Power Supply +30V/2A	3 Nos
18	ADD Make Single Regulated Power Supply 30V/2A	3 Nos
19	AC Servo Speed Torque Characteristic Measurement Unit	1 No
20	Microprocessor Based Stepper Motor Controller (CE-21A)	1No
21	PID Controller Kit	2 Nos
22	DC Position Module CE -2	2 Nos
23	Thermo Couple Module (IT-2)	2 Nos
24	Thermister (IT-3)	1 No
25	Resistance Temperature Pick-up (IT-4)	1 No
26	Inductive Pick-up (IT-7)	1 No
27	Capacitive Pick-up (IT-8)	1 No
28	LVDT Using Micrometer	1 No
29	Piezo Electric Transducer (IT-9)	1 No
30	LDR (IT-10)	1No
31	Compensator Module (CE -15)	1 No
32	Potential meter as Error Detector (calibro potential dial) (CE -19)	3 Nos
33	Op-Amp PID Controller (CE-20)	2 Nos

34	Techno make Linear system simulator	1No
35	Make:Techno Linear system simulator	1No
36	Potentiometer 10 wires with sliding jackeymake:PICO	2 Nos
37	DC Voltmeter (300V)	5 Nos
38	MECO make 2.5/5A Portable DC Ammeter (MC)	4 Nos
39	MECO make 5/10A Portable DC Ammeter (MC)	4 Nos
40	MECO make 1/2A Portable DC Ammeter (MC)	1 No
41	Tachometer	4 Nos
42	1 Phase Loading Rheostat	4 Nos
43	3 Phase Loading Rheostat	3 Nos
44	0.5 KVA –UPS with built-in sealed,maintanance free battery	1 No
45	ICE – 600(0.6kva) UPS	4 Nos
46	APC 1.5 kva UPS&APC External Battery Pack BR1500G-N/EB1223006215,BR24BPG-IN E21315000718	1 No
47	APC 1.5 kva UPS&BR1500IN (sr.no.BBO843021663)	1 No
48	Battery Pack	1 No
49	DC Servo speed torque characteristics	1 No
50	DC Speed condrol system	1 No
51	TemparatureCoondrol System	1 No
52	AC Synchro Transmitter& Receiver Trainer	1 No
53	Pentium	5 Nos
54	Logitech optical mouse	1 No
55	WIPRO LQ DSI 5235- Dot Matrix Printer	1 No
56	UPS Transline/tech no:3.0kva purelinemosfet technology pureline output 4No of 12V Battery Excide tubular modal(6EL40) 48V system each	1 No
57	8-port complex switch	1 No
58	8-port Net gear switch	1 No
59	HP Computer Systems	7 Nos

## ENGINEERING PRACTICES LABORATORY

Area of the Lab :78.14 sq.m

Sl.No.	Description of Equipment	Quantity
1.	Assorted electrical components for house wiring	15 sets
2.	Electrical measuring instruments	10 sets
3.	Study purpose items: Iron box, fan and regulator, emergency lamp	One each
4.	Megger (250V/500V)	1 No.
5.	Power Tools: (a) Range Finder (b) Digital Live-wire detector	2 Nos 2 Nos
ELECTRONICS		
1.	Soldering guns	10 No.
2.	Assorted electronic components for making circuits	50 No.
3.	Small PCBs	10 No.
4.	Multi Meters	10 No.
5.	Study purpose items: Telephone, FM radio, low-voltage power supply	2 each