



SV ENGINEERING OF COLLEGE
Karakambadi road, Tirupati.
DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING

Department Lab Infrastructure & Details

1. ELECTRICAL MEASUREMENTS LAB

S.NO	NAME OF THE EQUIPMENT	MAKE	NUMBER
1	Calibration & Testing of single phase energy meter	VALIKA ELECTRONICS	1
2	Calibration dynamo meter power factor meter	VALIKA ELECTRONICS	1
3	Crompton DC Portable Potentiometer Calibration of PMMC	VALIKA ELECTRONICS	1
4	Kelvin's Double Bridge	VALIKA ELECTRONICS	1
5	Schering Bridge	VALIKA ELECTRONICS	1
6	Measurement of 3 phase reactive power using single wattmeter	VALIKA ELECTRONICS	1
7	Choke coil parameters measurement	VALIKA ELECTRONICS	1
8	Calibration of LPF wattmeter by phantom loading	VALIKA ELECTRONICS	1
9	Anderson Bridge	VALIKA ELECTRONICS	1
10	Linear Variable Differential Transformer (LVDT) &	VALIKA ELECTRONICS	1
11	Capacitive trainer & Pick-up trainer	VALIKA ELECTRONICS	1
12	Phase Shifting Transformer	VALIKA ELECTRONICS	1

2. ELECTRICAL MACHINES LAB I & II

S.NO	NAME OF THE EQUIPMENT	MAKE	NUMBER
1	5 HP/220V/1500 RPM DC Shunt Motor Coupled to 3KW/220V/1500 RPM DC Shunt Generator	BENN	1
2	5 HP/220V/1500 RPM DC Shunt Motor Coupled to 3KW/220V/1500 RPM DC Compound Generator	BENN	1
3	5 HP/220V/1500 RPM DC Shunt Motor Coupled to 3KVA/3Ph/415V/1500 RPM salient pole/Sep. excited Synchronous Alternator	BENN	2
4	3 KW/220V/1500 RPM DC Shunt Identical Machines Coupled to each other	BENN	1
5	D.C. Regulated Power Supply unit input 3 phase/415V/50HZ, output 220V DC, 100Amps	BENN	1
6	Static Excitation Unit 2 Amos for Alternator	BENN	2
7	3 Point Starter 5 HP/220V	BENN	10
8	5 HP/220V/1500 RPM DC Shunt Motor with Mechanical Brake Drum Loading Arrangement	BENN	2
9	5 HP/220V/1500 RPM DC Compound Motor with Mechanical Brake Drum Loading Arrangement	BENN	1
10	5HP/3 Ph./415V/1500 RPM/50HZ Auto Synch. Motor with Mech. Brake Drum Arrangement	BENN	1
11	5 HP/3 Ph/415V/1430 RPM/50HZ AC Sq.Cage Induction Motor With Mech. Brake Drum Arrangement	BENN	1
12	3 HP/230V/1440 RPM/50HZ /CSCR/ Single phase Induction Motor With Mech. Brake Drum Arrangement	BENN	1
13	2 KW/220V/1500 RPM/DC Series Identical Machines coupled with each other with base and coupling	BENN	1
14	2 Point Starter for DC Motor	BENN	1
15	1-Phase Auto Transformer-10A	BENN	3
16	1-Phase Transformer 2KVA step down	BENN	4
17	Scott connection transformer 1-Phase,2KVA	BENN	1
18	1-Phase Auto Transformer-20A	BENN	1
19	3-Phase Auto Transformer-10A	BENN	3
20	1-Phase resistive load 230V,5KW,20A,10steps	BENN	4
21	Auto synchronous motor starter -DOL starter interlocked with Separate Excitation unit	BENN	1

3. POWER SYSTEM LAB

S.NO	NAME OF THE EQUIPMENT	MAKE	NUMBER
1	Determination of Sequence impedances of a cylindrical rotor synchronous machine Fault analysis-I Fault Analysis-II	POWER LAB	1
2	Determination of sub transient reactance of a salient pole synchronous machine	POWER LAB	1
3	Equivalent circuit of Three Winding Transformer	POWER LAB	1
4	SPLW 5/10A 150/300/600V	POWER LAB	6
5	SPLW 2.5/5A 150/300/600V	POWER LAB	3
6	SPLW1 10/20A 150/300/600V	POWER LAB	6
7	SPW1 5/10A 150/300/600V	POWER LAB	6
8	SPF1 5/10A 300/600V	POWER LAB	2
9	RH PL 15.01 1.7A/400 OHMS (RHEOSTAT)	POWER LAB	10
10	PL 16.01 SR 2A/500 ohms (RHEOSTAT)	POWER LAB	5
11	ML MATLAB 8.5	POWER LAB	25
12	PS POWER SYSTEMS TOOLBOX	POWER LAB	1
13	Characteristics of IDMT over current relays	POWER LAB	1
14	Characteristics of negative sequence relay	POWER LAB	1
15	Characteristics of over voltage relay Electromagnetic type	POWER LAB	1
16	Characteristics of over voltage relay Microprocessor Based type	POWER LAB	1

4. CONTROL SYSTEMS LAB

S.NO	NAME OF THE EQUIPMENT	MAKE	NUMBER
1	Time response of Second order system	S S LAB	1
2	Lead-Lag Compensating Network Study Unit	S S LAB	1
3	Temperature Controller Using PID	S S LAB	1
4	Characteristics of Synchro Transmitter Receiver Pair	S S LAB	1
5	Effect of P, PI, PD, PID Controller on Second Order System	S S LAB	1
6	Effect of feedback on D.C Servomotor	S S LAB	1
7	Transfer Function of D.C Motor – Study Unit	S S LAB	1
8	Programmable Logic Controller	S S LAB	1
9	Magnetic Amplifier	S S LAB	1

5. ELECTRICAL CIRCUITS AND NETWORK THEORY LAB

S.NO	NAME OF THE EQUIPMENT	MAKE	NUMBER
1	Nortons and Thevininstheorm	DELTA TECH SYSTEMS	1
2	Super position and maximum power transfer theorem	DELTA TECH SYSTEMS	1
3	Compensation theorem	DELTA TECH SYSTEMS	1
4	Reciprocity and millmanns theorem	DELTA TECH SYSTEMS	1
5	Series and parallel resonance circuit	DELTA TECH SYSTEMS	1
6	Z and Y parameters	DELTA TECH SYSTEMS	1
7	Transmission and Hybrid parameters	DELTA TECH SYSTEMS	1
8	Locus diagram of RC and RL circuits	DELTA TECH SYSTEMS	1
9	3 phase auto transformer 10A	DELTA TECH SYSTEMS	1
10	Wattmeter UPF 5/10A , 150/300/600V	DELTA TECH SYSTEMS	3
11	Voltmeter 0-300V	DELTA TECH SYSTEMS	2
12	Ammeter 5/10A	DELTA TECH SYSTEMS	2
13	Transformer 1KVA	DELTA TECH SYSTEMS	1
14	Single phase variac	DELTA TECH SYSTEMS	1
15	3 phase induction load 10A	DELTA TECH SYSTEMS	4
16	Verification of KCL and KVL for any network	DELTA TECH SYSTEMS	1
17	Analysis of RL and RC circuits	DELTA TECH SYSTEMS	1
18	Frequency response of series and parallel circuit	DELTA TECH SYSTEMS	1
19	Design of frequency response constant K filter	DELTA TECH SYSTEMS	1
20	Digital Oscilloscope	DELTA TECH SYSTEMS	4
21	Regulated power supply 0-30V/2A dual channel	DELTA TECH SYSTEMS	5
22	Digital Multimeters	DELTA TECH SYSTEMS	8

6. POWER ELECTRONICS LAB

S.NO	NAME OF THE EQUIPMENT	MAKE	NUMBER
1	DIGITAL STORAGE OSCILLOSCOPE (DSO) 50 MHZ, 2 CHANNEL	LOKESH ELECTRO TECH	6
2	Gate Firing Circuits for SCR's	LOKESH ELECTRO TECH	1
3	Single Phase Voltage Controller With R & RL Loads	LOKESH ELECTRO TECH	1
4	Forced Commutation Circuits Study Unit	LOKESH ELECTRO TECH	1
5	JONES Chopper	LOKESH ELECTRO TECH	1
6	Single Phase Parallel Inverter	LOKESH ELECTRO TECH	1
7	Single Phase Cyclo Converter with R & RL Load	LOKESH ELECTRO TECH	1
8	Single Phase Series Inverter	LOKESH ELECTRO TECH	1
9	Single Phase Dual Converter with R & RL loads	LOKESH ELECTRO TECH	1