



List of Program Specific Labs

And



Computing Facility within Department

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LIST OF PROGRAM SPECIFIC LABS

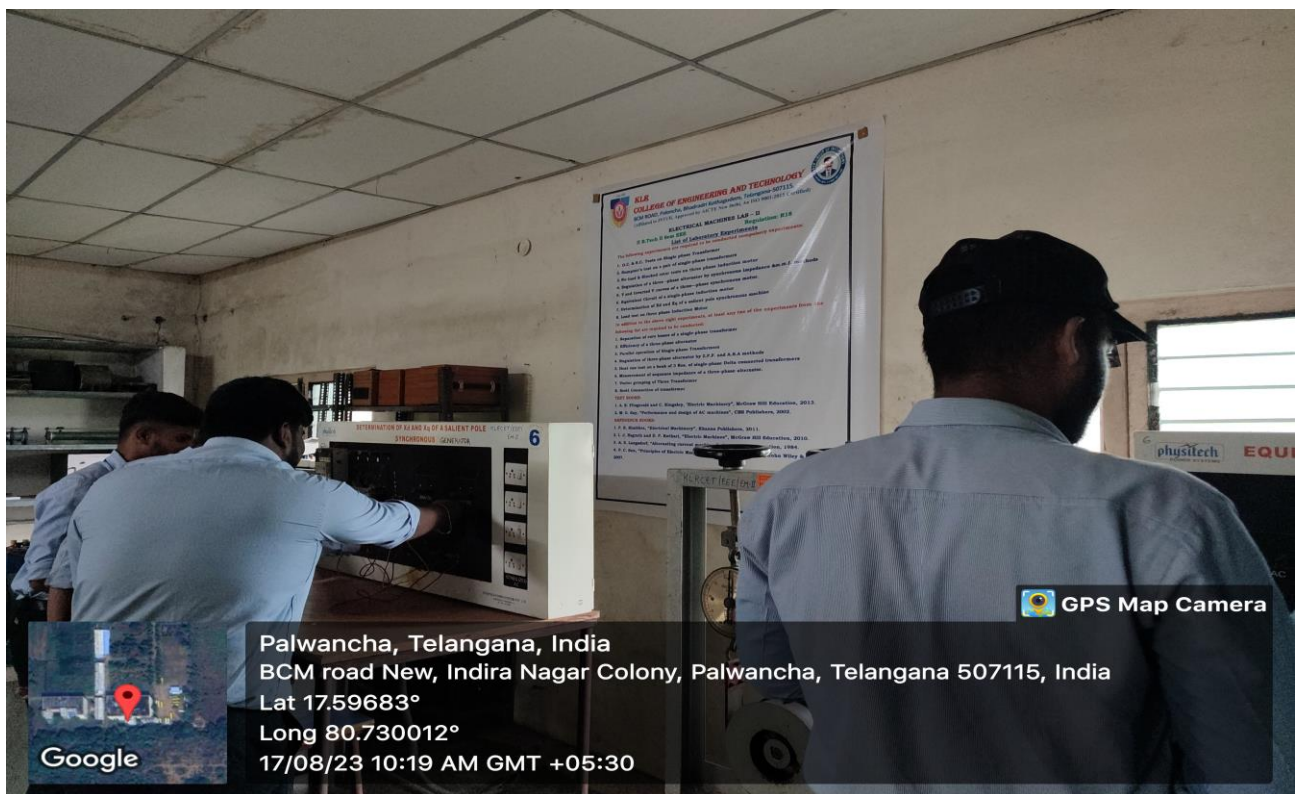
1. ELECTRICAL MACHINES-I LAB

S.No	Name of the Laboratory/Venue	No. of students per setup (Batch size)	Name of the important equipment	Lab photo
1.	<p align="center">Electrical Machines – I</p> <p align="center">SHED-2</p> <p align="center">Ground floor</p> <p align="center">Room no:003</p>	30	1.DC shunt motor 5HP, 220V, 1500RPM, DC shunt generator 3HP, 220V, 1500RPM arrangement. (MG set) 2. DC shunt motor 5HP, 220V, 1500RPM, DC shunt generator 3HP, 220V, 1500RPM arrangement. (MG set) 3.DC shunt motor 5HP, 220V, 1500RPM (Brake Drum) No.24.DC compound motor 3HP, 220V, 1500RPM 4.DC shunt motor 3HP, 220V, 1500RPM, 5. DC series Generator 3HP, 220V, 1500RPM. (Motor Generator set) 6.DC series motor 5HP, 220V, 1500RPM (Brake Drum) 7.DC shunt motor 3HP, 220V, 1500RPM 8.DC Compound Generator 3HP, 220V, 1500RPM 9. Shunt motor 5HP, 220V, 1500RPM	 

Major Equipments Costs of Electrical Machines-I Lab

S. No	Name Of The Equipment	Name Of The Supplier	Date	Cost(RS)
1	Natural air Rectifier Equipment, Type 220/100 amps	Associated Scientific Corporation	20-06-2008	1,29,000/-
2	Dc Shunt Motor 5HP , 220 V,1500 RPM , Directly Coupled On Channel Frame With Flexible type Coupling to DC Shunt Generator220 v ,3KW	Associated Scientific Corporation	20-06-2008	62,750/-
3	Dc Shunt Motor 5HP , 220 V,1500 RPM with Brake load pulley belt load changing arrangement dual type spring balances	Associated Scientific Corporation	20-06-2008	42,750/-
4	Dc Compound Motor 5HP , 220 V,1500 RPM with Brake load pulley belt load changing arrangement dual type spring balances	Associated Scientific Corporation	20-06-2008	42,750/-
5	Dc Shunt Motor 5HP , 220 V,1500 RPM , Directly Coupled On Channel Frame With Flexible type Coupling to DC Series Generator220 v ,3KW	Associated Scientific Corporation	20-06-2008	62,750/-
6	Dc Shunt Motor 5HP , 220 V,1500 RPM , Directly Coupled On Channel Frame With Flexible type Coupling to DC Compound Generator220 v ,3KW	Associated Scientific Corporation	20-06-2008	62,750/-
TOTAL				₹4,02,750/-

Sample Pictures of Electrical Machines-I Lab



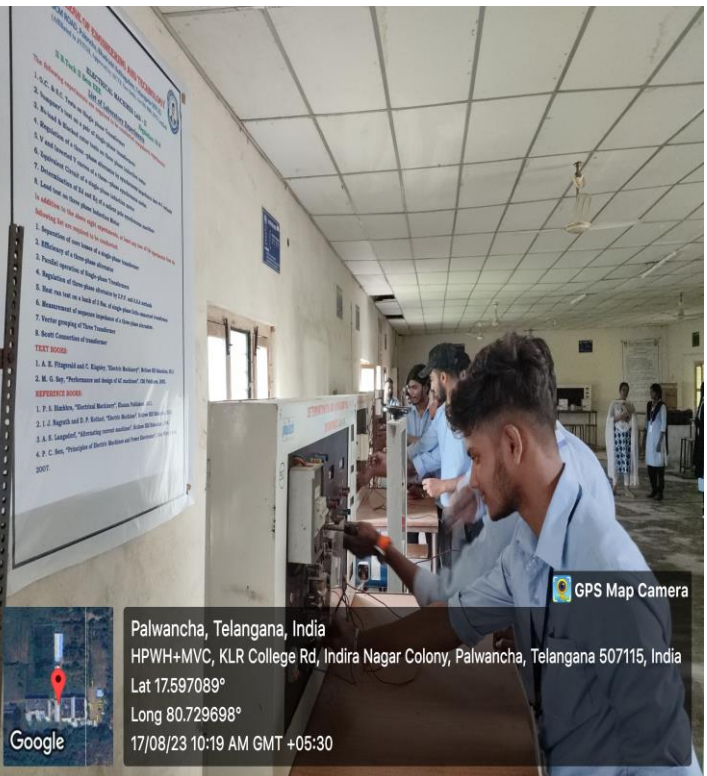
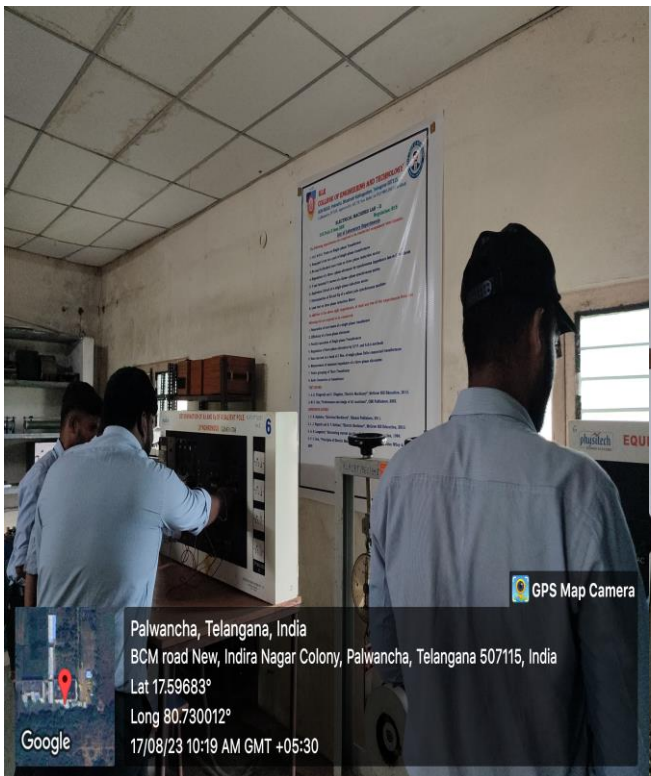
2. ELECTRICAL MACHINES-II LAB

S.No	Name of the Laboratory /Venue	No. of students per setup (Batch size)	Name of the important equipment	Lab photo
2.	<p align="center">Electrical Machines – II</p> <p align="center">SHED-2</p> <p>Ground floor</p> <p>Room no:003</p>	30	<ol style="list-style-type: none"> 1. 3-P AC Generator 3 kva,50 Hz,415V, 1500 RPM (Cylindrical alternator) 2. 3-P Synchronous motor 5HP, 220V, 1500RPM ,0.8 P.F lagging & DC Shunt Generator 3HP,220V, 1500RPM (Motor Generator set V/ V on Synchronous) 3. 3-P slipping Induction motor 5HP,50Hz, 415V, 1500RPM (Brake Drum) 4. 3-P Induction motor 5HP,50Hz, 415V, 1440RPM (Brake Drum Dual starter cylindrical) 5. 3-P Induction motor 5HP,50Hz, 415V, 1440RPM, 0.86 P. F lagging (B-Drum, Star Delta starter) 6. 1-P Induction motor 240V,50Hz, Capacitor Start (200mf,275V) & Capacitor run(20mf,440V) DOL, VBM Brake Drum) 7. Alternator 3KVA 415V,50Hz,1500RPM DC Shunt Motor 3HP, 1500RPM,220V 8. (Motor Generator set for Xd and Xq salient synchronous) 9.3 KVA,230V with tapping Scott Transformer No.2 10. 2 KVA,230V with tapping Transformer No.4 11.1KVA Transformer with tapping No.1 12.3Ph Squirrel cage Induction Motor 415V, 50Hz, 1440RPM with Brake drum arrangement 13.2KVA A step down transformer ,230/115V 14. DOL Starter for 3Ph Motor 15.Auto Transformer 15P-1 Motor Coupled to 3KVA 3 phase, 415V, 1500RPM Salient Pole Alternator -2 Nos. 16. Synchronous Motor 5HP, 3Ph, 415V, 1500RPM with Mechanical brake Drum Arrangement-1 No. 17. AC Slip Ring Induction Motor 5HP, 3-phase, 415V, 1410RPM with Mechanical brake drum arrangement-1. 18.with Mechanical brake Drum Arrangement-1 No. 19. DOL Starter for 1 HPAC Motor-1 No. 20. AC 1-Ph Induction Motor 1HP, 230V, 1450RPM CSCR with Mechanical brake drum arrangement-1 No. 21. Starter Panel/ Excitation Unit for 5HP, 3- phase, Synchronous Motor-1 No. 22. Excitation Unit 2A for 3KVA Alternator-2 Nos. Single Phase 23. Transformers 2KVA, (230/150) V, 50Hz- 4 No. 24. Single Phase Transformers 1KVA, (230/150) V, 50Hz with Tapings 50% and 86.6%-2 Nos 	 


**Major Equipments Costs of Electrical Machines-I Lab**

S.No.	Name Of The Equipment	Name Of The Supplier	Date	Cost(RS)
1	Dc Shunt Motor 5HP , 220 V,1500 RPM , Coupled to 3- Phase 440v, Alternator 3KVA Bolted on common base late with flexible coupling and DC 3 point starter	Associated Scientific Corporation	27-08-2009	76,050/-
2	Synchronous Motor 415 V AC , 3 Phase 5HP Coupled to dc shunt generator 230v,3 KW, bolted on common base plate with flexible coupling auto transformer starter	Associated Scientific Corporation	27-08-2009	72,800/-
3	AC 3-phase induction motor 5HP with Brake load pulley belt load changing arrangement dial type spring balances.(Starter)	Physitech Power System Private limited	27-08-2009	44,750/-
4	AC 3-phase induction motor 5HP with Brake load pulley belt load changing arrangement dial type spring balances.(DOL Starter)	Physitech Power System Private limited	27-08-2009	44,750/-
5	Synchronous motor 415V A.C 3-phase , 5HP , Coupled to D.C Shunt Generator 230V , 3KW Bolted on Common base plate with flexible coupling auto transformer starter	Physitech Power System Private limited	27-08-2009	72,800/-
6	DC shunt motor 5HP, 220V 1500 rpm Coupled to 3-0 440v alternator 3KVA, bolted on Common base plate with flexible Coupling DC 3 point starter	Physitech Power System Private limited	27-08-2009	62,750/-
7	Transformer 1- phase 2KVA input 220v output with tapping at 50%. & 100%. Housed in steel box with educational type terminals provided (S.No. 8 in the Sondex (A.c) has been same for the above speci-	Physitech Power System Private limited	27-08-2009	10,424/-
TOTAL				₹3,84,324/-

Sample Pictures of Electrical Machines-I Lab



3. ELECTRICAL CIRCUITS LAB

S.No	Name of the Laboratory /Venue	No. of students per setup (Batch size)	Name of the important equipment	Lab photo
3.	Electrical Circuits Lab Main Block 1 st floor Room no: MB-106	30	1. Bread Boards-1Nos. 2. Decade Resistance Box-1 Nos. 3. Decade Capacitance Box 1Nos. 4. Decade Inductance Box-2Nos. 5. Multi meters (CIE 123)-28 Nos. 6. Dual Regulated Power Supply (0- 40V/2A)-12 Nos. 7. Dual Trace CRO-12 Nos.	



Major Equipments Costs of Electrical Circuits Lab

S.NO	NAME OF EQUIPMENT	NAME OF THE SUPPLIER	DATE	COST
1.	Harmonic Analyser	Physitech	14-12-2018	71,000/-
2.	3phase wattmeter UPF	Physitech	13-10-2011	14,200/-
3.	3phase wattmeter UPF	Physitech	13-10-2011	11,180/-
4.	3phase wattmeter	Physitech	13-10-2011	5,590/-
5.	Thevenin's, Norton's theorem kit	Perfect Electronics Systems	30-03-2015	2,200/-
6.	Super position theorem kit	Perfect Electronics Systems	30-03-2015	2,200/-
7.	Compensation theorem	Physitech	30-03-2015	2,200/-
8.	Maximum power transfer theorem	Aquila	30-03-2015	2,200/-
9.	Reciprocity theorem	Physitech	30-03-2015	2,200/-
10.	Milliman's theorem	Physitech	30-03-2015	2,200/-
11.	Locus diagram kit	Physitech	30-03-2015	2,800/-
12.	LCR Resonance	Physitech	30-03-2015	2,600/-
13.	Function Generator	Pacific	13-10-2011	4,900/-
14.	Multimeters	Pacific	13-10-2011	11,250/-
15.	CRO dual trays	Physi-tech	13-10-2011	18,500/-
TOTAL				₹1,55,220/-

Sample Pictures of Electrical Circuits Lab



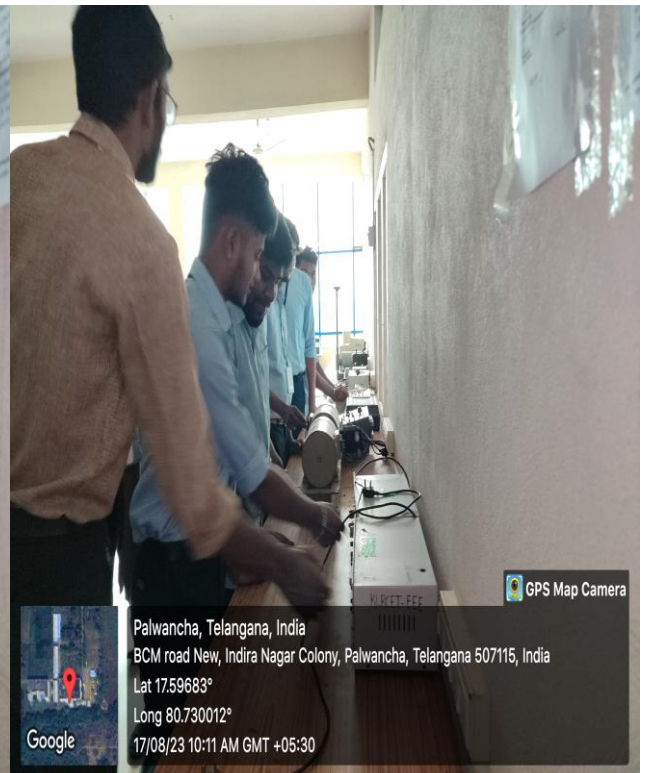
4. CONTROL SYSTEMS LAB:

S.No	Name of the Laboratory /Venue	No. of students per setup (Batch size)	Name of the important equipment	Lab photo
4	Control Systems Lab Main Block 1 st floor Room no: MB-106	30	1. Characteristics of A.C Servo Motor- 1 No. 2. DC Servo Motor closed loop controller- 1 No. 3. Lead-Lag Network Simulator-1 No. 4. Magnetic Amplifier Kit-1 No. 5. Process Control Simulation-1 No. 6. Transfer function of DC Motor/Generator 7. PID controller, liner simulator 8. Synchro Transmitter Receiver Trainer- 1 No. 9. Programmable Logic Control (PLC) Trainer-1 No. 10. Temperature Control using PID System Using PID-1 No. 11. Potentiometer as Error Detector 1No. 12. DC Position Control System 1No. 13. PLC Trainer with Speed controller Stepper Motor-1 NO	 


Major Equipments Costs of Control Systems Lab:

S.NO	NAME OF EQUIPMENT	NAME OF THE SUPPLIER	DATE	COST
1.	Synchro Pair kit	Physitech Power System Private limited	1/8/2011	18,500/-
2	PID controller kit	Physitech Power System Private limited	1/8/2011	13,500/-
3	Lag Lead kit	Physitech Power System Private limited	1/8/2011	10,500/-
4	Magnetic Amplifier kit	Physitech Power System Private limited	1/8/2011	16,500/-
5	AC Servo motor kit	Physitech Power System Private limited	1/8/2011	18,500/-
6	CRO Dual trace	Physitech Power System Private limited	1/8/2011	74,000/-
TOTAL				₹1,51,500/-

Sample Pictures of Control Systems Lab



5. ELECTRICAL MEASUREMENTS & INSTRUMENTATION LAB

S.No	Name of the Laboratory /Venue	No. of students per setup (Batch size)	Name of the important equipment	Lab photo
5	Electrical Measurements & Instrumentation Lab Main Block 2nd floor Room no: MB-212	30	1. IT-8 Study of capacitive pick up-1 No. 2. CT's 5/5A Commercial Transformer-6 Nos. 3. Voltage ratio Box to extend the range - 1 No. 4. Single phase Single Element Portable Dynamo 10A-150-1 No. 5. Single phase Single Element Portable Dynamo type WATM-1No. 6. Portable Kelvin Bridge-1 No. 7. Anderson Bridge -1 No. 8. Crompton D.C. Potentiometer-1 No. 9. Inductive Load 1ph 10A-1 No. 10. LVDT kit 5 (A) -1 No. 11. Galvanometer30-0-30/2UA-1No. 12. F710 (Schering Bridge) -1 No. 13. Indian Watt hour meter -1 No. 14. Galvanometer Mr. 100 class-5/2v.	

Major Equipments Costs of Electrical Measurements & Instrumentation Lab

S.No.	Name Of The Equipment	Name Of The Supplier	Date	Cost(RS)
1	Measurement of 3- phase reactive power with single phase watt meter	Physitech Power System Private limited	6/12/2012	83,350/-
2	Measurement of % ratio error & phase angle given CT	Physitech Power System Private limited	15/5/2015	68,400/-
3	Transformer turns ratio measurement using AC bridge	Physitech Power System Private limited	12/12/2011	75,654/-
4	Measurement of 3-phase power with single Wattmeter and 2 no's of CT	Automatic Electric Limited	06/12/2012	24,526/-
5	LVDT Trainer kit	Automatic Electric Limited	18/07/2012	12,500/-
TOTAL				₹2,64,430/-

Sample Pictures of Electrical Measurements & Instrumentation Lab



GPS Map Camera



Google

Palwancha, Telangana, India
 BCM road New, Indira Nagar Colony, Palwancha, Telangana 507115, India
 Lat 17.596718°
 Long 80.730069°
 17/08/23 10:10 AM GMT +05:30



GPS Map Camera



Google

Palwancha, Telangana, India
 BCM road New, Indira Nagar Colony, Palwancha, Telangana 507115, India
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 17/08/23 10:11 AM GMT +05:30





GPS Map Camera



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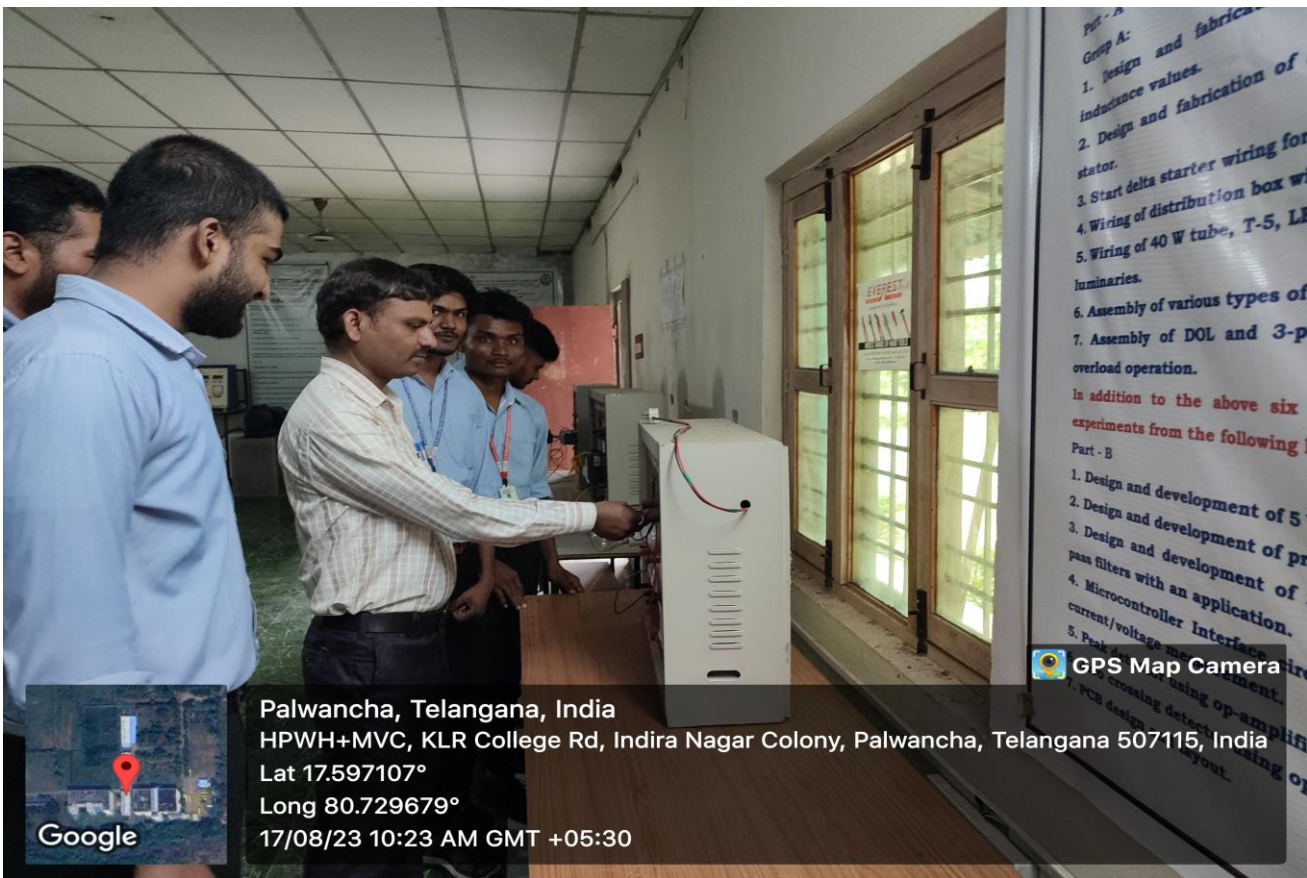
6. ELECTRICAL & ELECTRONICS DESIGN – LAB

S.No	Name of the Laboratory /Venue	No. of students per setup (Batch size)	Name of the important equipment	Lab photo
6	Electrical & Electronics Design – LAB SHED-1 Ground floor Room no:SH-002	30	<ol style="list-style-type: none"> Design and fabrication of reactor/ electromagnet for different inductance values. Design and fabrication of single-phase Induction/three phase motor stator. Start delta starter wiring for automatic and manual operation. Wiring of distribution box with MCB, ELCB, RCCB and MCCB. Wiring of 40 W tube, T-5, LED, Metal Halide lamps and available latest luminaries. Assembly of various types of contactors with wiring. Assembly of DOL and 3-point starter with NVC connections and overload operation. Design and development of 5 V regulated power supply. Design and development of precision rectifier. Design and development of first order/ second order low pass/high pass filters with an application. Peak detector using op-amplifiers. Zero crossing detector using op-amplifiers. 	 



Major Equipments Costs of Electrical & Electronics Design – Lab

S.No.	Name Of The Equipment	Name Of The Supplier	Date	Cost(RS)
1	Design and fabrication of single-phase induction motor stator	Techno systems	01-08-2021	23,500/-
2	Star Delta Starter Wiring for automatic	Techno systems	01-08-2021	21,500/-
3	Assembly of DOL & 3-point starter	Techno systems	01-08-2021	19,800/-
4	Wiring of Distribution of Box with MCB, ELCB, RCCB & MCCB	Techno systems	01-08-2021	19,800/-
5	Design and Fabrication of reactor/ Electromagnet for Different Inductance	Techno systems	01-08-2021	17,600/-
TOTAL				₹1,02,200/-

Sample Pictures of Electrical & Electronics Design – Lab



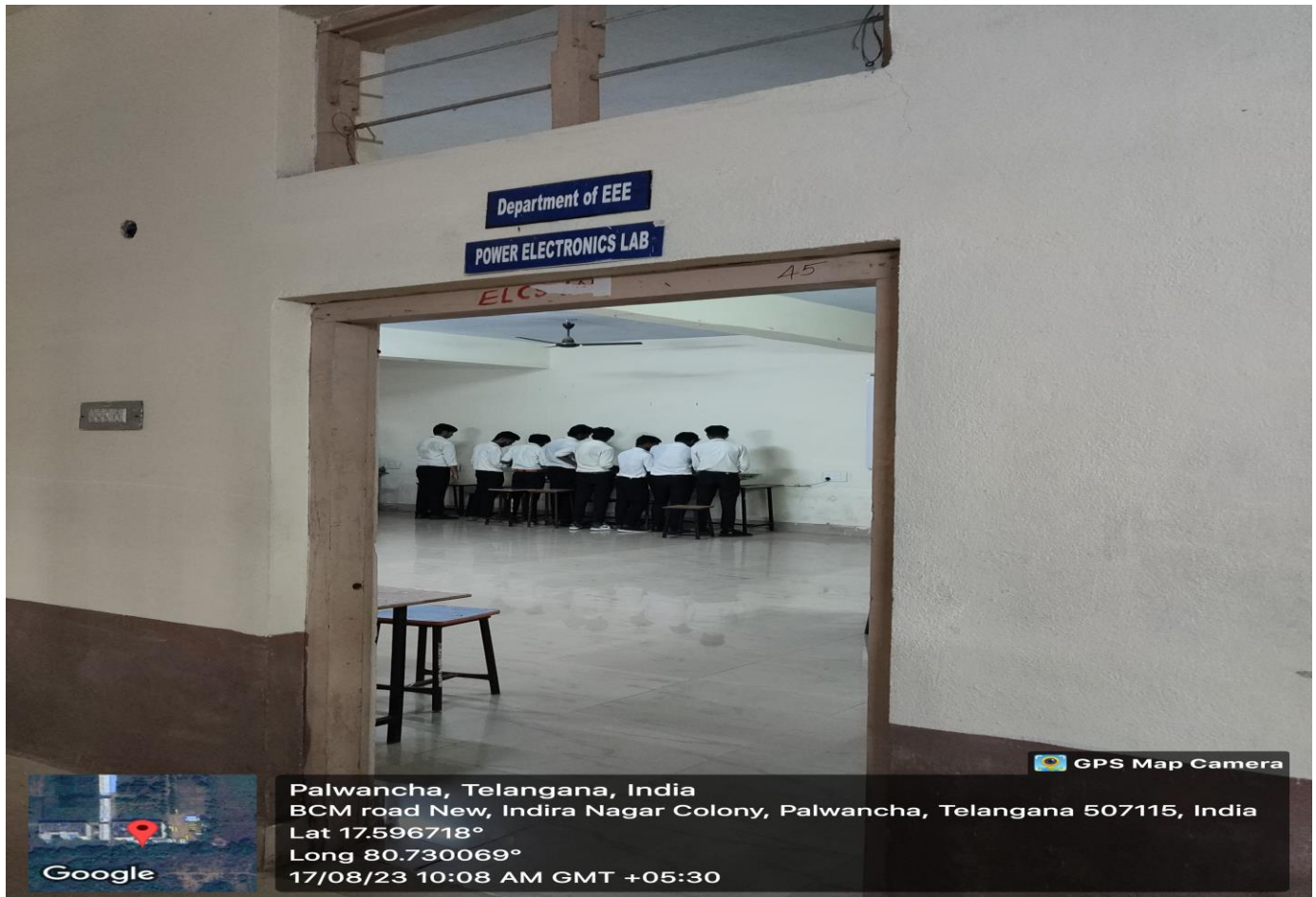
7. POWER ELECTRONICS –LAB

S.No	Name of the Laboratory /Venue	No. of students per setup (Batch size)	Name of the important equipment	Lab photo
7.	Power Electronics –LAB Main Block 2nd floor Room no: MB-208	30	1. Study of Characteristics of SCR, MOSFET & IGBT 2. Gate firing circuits for SCR's 3. Single Phase AC Voltage Controller with R and RL Loads 4. Single Phase half controlled & fully controlled bridge converter with R and RL loads 5. Forced Commutation circuits (Class-A, Class-B, Class-C, Class-D & Class-E) 6. Single Phase Cyclo-converter with R and RL loads 7. Single Phase series & parallel inverter with R and RL loads 8. Single Phase Bridge inverter with R and RL loads 9. Three Phase half-controlled bridge converter with R-load 10. Single Phase dual converter with RL load	 


Major Equipments Costs of Power Electronics –Lab

S.NO	NAME OF EQUIPMENT	NAME OF THE SUPPLIER	DATE	COST
1.	Single Phase Cyclo-Converter with R and RL load	Physic-tech	09-12-2011	34,430/-
2.	CRO's with probes	Physic-tech	12-11-2011	92,500/-
3.	CRO's with probes	Physic-tech	15-11-2011	1,48,000/-
4.	Single Phase Fully controlled Bridge Converter With R and RL load	Physic-tech	09-12-2011	26,290/-
5.	Single Phase Half-Controlled bridge with R-load	Physic-tech	09-12-2011	23,300/-
TOTAL				₹3,24,520/-

Sample Pictures of Power Electronics –Lab



8. POWER SYSTEMS – LAB

S.No	Name of the Laboratory /Venue	No. of students per setup (Batch size)	Name of the important equipment	Lab photo
8.	Power Systems – LAB SHED-1 Ground floor Room no:SH-002	30	1. Characteristics of IDMT Over Current Relay. 2. Differential protection of 1- Φ transformer. 3. Characteristics of Micro Processor based Over Voltage/Under Voltage relay. 4. A, B, C, D constants of a Long Transmission line 5. Finding the sequence impedances of 3- Φ synchronous machine. 6. Finding the sequence impedances of 3- Φ Transformer. 7. Formation of YBUS. 8. Load Flow Analysis using Fast Decoupled (FD) Method. 9. Formation of ZBUS. 10. Simulation of Compensated Line	

Major Equipments Costs of Power Systems–Lab

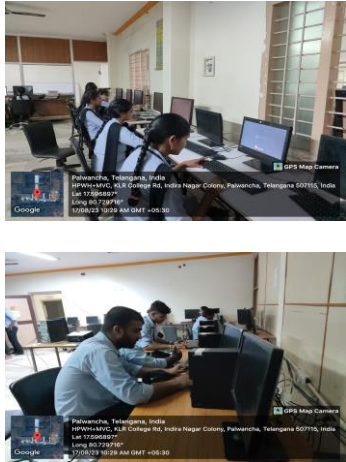
S.NO	NAME OF EQUIPMENT	NAME OF THE SUPPLIER	DATE	COST
1.	Sequence impedance of 3-phase Syn.machine &(L-L,L-G) Analysis	Delta Electro system pvt.ltd.	6-03-2018	86,000/-
2.	ABCD parameters of 3 phase T/M lines power circle diagram	Delta Electro system pvt.ltd.	6-03-2018	74,000/-
3.	Sequence impedance of 3 phase T/F 3 phase variac	Delta Electro system pvt.ltd.	6-03-2018	74,000/-
4.	Testing of CT,PT & Insulation string	Delta Electro system pvt.ltd.	6-03-2018	69,000/-
5.	Characteristics of IDMT over current relay	Delta Electro system pvt.ltd.	6-03-2018	56,000/-
6.	Differential protection of single phase T/F	Delta Electro system pvt.ltd.	6-03-2018	58,000/-
7.	Characteristics of microprocessor based over/under voltage relay	Delta Electro system pvt.ltd.	6-03-2018	59,000/-
TOTAL				₹4,76,000/-

Sample Pictures of Power Electronics –Lab



DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

LIST OF COMPUTING FACILITIES

S.No	Name of the Laboratory/Venue	No. of students per setup (Batch size)	Name of the important equipment	Lab Image/Software Used
1	Power System simulation lab & Electrical Simulation tools Laboratory Main Block Second floor Room no:MB-202	30	1.Computer system with latest specifications connected 2.WINDOW Xp or equivalent 3.simulation software e-MAT LAB or any equivalent simulation software 4.Multisim, P-Spice, E-CAD	

Major Equipments Costs of Electrical System & Simulation Lab

S.NO	NAME OF EQUIPMENT	NAME OF THE SUPPLIER	DATE	COST
1.	Processor: i5-8500 CPU Speed:3.00GHz, RAM:8GB Mouse: DELL Keyboard: Dell Monitor: DELL Cabin: DELL: Windows 10 Pro	C-Prompt Solutions Pvt Limited, Hyderabad	02-03-2013	6,00,000/-
TOTAL				₹6,00,000/-

Sample Pictures of Electrical System & Simulation Lab

