

EEE Department Laboratories Information

Name of the Laboratory: CONTROL SYSTEMS AND SIMULATION LABORATORY			
S.No	List of Major Equipment	Laboratory Description	Total Area of Laboratory (In Square Feet)
1	AC Servo Motor Kit	The "Control Systems and Simulation Lab" contain a wide range of equipment for experimentation regarding electromechanical feedback control systems. The topics studied in this lab include: Programmable Logic Controllers, State Variable Models, Transient Response and Electro-Mechanical Interfacing.	44.1 x 25 .1
2	DC Servo Motor Controller kit		
3	Cathode Ray Oscilloscopes (30MHZ)		
4	PID Controller Trainer Kit with Temperature		
5	PLC Demonstration Trainer Kit		
6	Servo Controlled Voltage Stabilizer		
7	Synchro Transmitter-Receiver Trainer		
8	Function Generator		
Name of the Laboratory: POWER SYSTEMS & SIMULATION LABORATORY			
S.No	List of Major Equipment	Laboratory Description	Total Area of Laboratory (In Square Feet)
1	DC SHUNT MOTOR COUPLED TO ALTERNATOR	This Lab serves as a simple calculator for making long complicated calculations and plot graphs of the performance of different equipments.	92.5 x 25
2	3-PHASE, 3-WINDING TRANSFORMER		
3	3 -Ø AUTO TRANSFORMER		
4	PERSONAL COMPUTERS		
Name of the Laboratory: ELECTRICAL MEASUREMENTS LABORATORY			
S.No	List of Major Equipment	Laboratory Description	Total Area of Laboratory (In Square Feet)
1	Crompton DC Potentiometer Kit	This lab teaches the students to know the procedures for measuring Resistance, Inductance and Capacitance of different ranges. It also includes industrial practices of testing the dielectric strength of transformer oil and calibration of energy meters.	45 x 25.1
2	Dynamometer Type Power Factor Meter		
3	Kelvins Double Bridge Trainer Kit		
4	Schering and Anderson Bridge Trainer Kit		
5	LVDT Trainer Kit		
6	Resistance Strain Gauge Kit		
7	Dielectric Oil Testing Kit		
8	Single Phase Auto Transformer		
9	Capacitance Pickup Trainer Kit		

Name of the Laboratory: ELECTRICAL CIRCUIT ANALYSIS LABORATORY			
S.No	List of Major Equipment	Laboratory Description	Total Area of Laboratory (In Square Feet)
1	Breadboards	Electrical Circuit Analysis Lab gives the experimental skill for students to create their own electrical circuits. Basic electrical elements like resistor, inductor and capacitor will be introduced.	44.1 x 25 .1
2	Resistors		
3	RPS		
4	DRB		
5	DCB		
6	DIB		
7	Ammeters		
8	Voltmeters		
9	Resistive Load		
Name of the Laboratory: ELECTRICAL MACHINES LABORATORY (DC & AC MACHINES)			
S.No	List of Major Equipment	Laboratory Description	Total Area of Laboratory (In Square Feet)
1	FOOT MOUNTED DC SHUNT MOTOR	Electrical Machines Laboratory will provide experimental skill for the students on the concepts related to their course Viz. “DC Motors”, “DC Generators”, “AC Motors”, “AC Generators” and “Transformers”. This lab is conducted to understand the basic concepts of above studied machines. This provides an adaptable training system for the students of EEE in their core curriculum.	92.5 x 25
2	DC SHUNT MOTOR WITH FLY WHEEL		
3	DC SHUNT MOTOR COUPLED TO DC SHUNT GENERATOR		
4	SHUNT MOTOR COUPLED TO COMPOUND GENERATOR		
5	SHUNT MOTOR COUPLED TO SERIES GENERATOR		
6	DC SHUNT MOTOR COUPLED TO ALTERNATOR		
7	3 -Ø SQUIRREL CAGE IM		
8	1 -Ø INDUCTION MOTOR		
9	ALTERNATOR		
10	3-PHASE 3-WINDING TRANSFORMER		

Name of the Laboratory: POWER ELECTRONICS AND SIMULATION LABORATORY			
S.No	List of Major Equipment	Laboratory Description	Total Area of Laboratory (In Square Feet)
1	1-Ø AC VOLTAGE CONTROLLER	Power Electronics and Simulation Laboratory course aims at imparting practical knowledge of power electronic converters and their design. This lab has oscilloscopes for viewing the voltage waveforms across various places of the converter circuits. This lab also provides an insight of the variations of converter output based on the variations of firing angle and duty area.	92.5 x 25
2	1-Ø CYCLO CONVERTER POWER		
3	CIRCUITDC JONES CHOPPER POWER CIRCUIT		
4	1-Ø FULLY CONTROLLED BRIDGE CONVERTER		
5	FORCED COMMUTATION CIRCUIT		
6	1-Ø PARALLEL INVERTER POWER CIRCUIT		
7	STUDY CHARACTERISTICS OF MOSFET,IGBT,SCR KIT		
8	SCR FIRING CIRCUIT KIT		
9	3-Ø FULLY CONTROLLED R&RL LOAD CONVERTER		
10	1-Ø DUAL CONVERTER R & RL LOAD		
11	DC-DC BUCK CONVERTER		
Name of the Laboratory: CIRCUIT SIMULATION AND ANALYSIS LABORATORY			
S.No	List of Major Equipment	Laboratory Description	Total Area of Laboratory (In Square Feet)
1	Analog and Digital DC ammeters	Electrical Circuit Analysis Lab gives the experimental skill for students to create their own electrical circuits. Basic electrical elements like resistor, inductor and capacitor will be introduced	45 x 25.1
2	Analog & Digital AC ammeters		
5	Single phase variac (230V/10A)		
6	Regulated power supplies		
7	Function Generators		
8	Decade resistance boxes		
9	Decade Capacitances boxes		
10	Decade inductance boxes		
11	Multimeters and Computers		