

Electronic Devices and Circuits Lab

This lab is offered to B.Tech., ECE/EIE/CSE/IT/ASE student and it is specially designed and developed for the students to observe the characteristics of various electronic devices. This lab is well provided with equipment like Cathode Ray Oscilloscopes (CRO), Digital Oscilloscopes, Regulated DC power supplies (RPS), Function Generators and Digital and Analog meters of a wide range. This lab gives practical observation on different basic applications of electronic devices. This gives a good foundation on electronic devices to the students in the initial years. At the end of the semester the student will handle any basic level electronic circuits. We also encourage students to take mini projects by providing them with the required components. The Budget of this lab is around Rs.7,65,954/-.



Major Equipment:

S.No.	Name of the Equipment	Qty.	Cost in Rs.
1	Cathode Ray Oscilloscope (CRO)	18	3,15,000.00
2	Function Generators (FG)	18	1,80,000.00
3	Regulated Power Supply (RPS)	20	1,20,000.00
4	DMM	20	24,000.00
5	Analog Meters	180	93,050.00
6	Trainer Kits	20	20,000.00
7	Servo controlled Voltage Stabilizer 10KVA	1	13,904.00
Total (Seven lakh sixty five thousand nine hundred and fifty four rupees only)			7,65,954.00

List of Experiments (As per curriculum):

S.No.	Name of the Experiment
1	Study the functionality of basic devices and lab equipment.
2	Measurements of signal characteristics using CRO.
3	PN-Junction Diode Volt-Ampere Characteristics.
4	Zener Diode Volt-Ampere Characteristics.
5	Half wave rectifier without filter.
6	Half wave rectifier with capacitive and inductive filter.
7	Full wave rectifier without filter.
8	Full wave rectifier with capacitive and inductive filter.
9	Bridge rectifier circuit with and without filter.
10	Transistor characteristics under CB, CE and CC configuration.
11	Drain and Transfer characteristics of JFET.
12	Uni-Junction Transistor characteristics.

List of Experiments (Beyond the Syllabus):

S.No.	Name of the Experiment
1	SCR Characteristics.
2	MOSFET Characteristics.

Lab Mentor : Dr.M.Venkata Sudhakar, Professor
Lab Incharge : Mr. M.Siva Sankara Rao, Sr Assistant Professor
Lab Co-Incharge : Mr. P.Venkateswara Rao, Assistant Professor
Lab Technician : Mr. O. Srinivasa Reddy