

ELECTRONIC CIRCUIT SIMULATION (SKILL ORIENTED COURSE-I)

Course Code:22EC11S1

L	T	P	C
0	1	2	2

Course Outcomes: At the end of the course the student will be able to

CO1: Examine and Verify the basic operations of two terminal devices.(L3)

CO2: Demonstrate and Verify the basic operations of three terminal devices.(L3)

CO3: Understand the h parameters and gain calculation for an amplifier.(L2)

CO4: Analyze the electronic circuits using Op-Amp.(L4)

CO5: Demonstrate PCB layout for an electronic circuit.(L3)

List of Experiments:

1. Design an experimental setup for the given diode to find out Cut-in voltage, static resistance, and dynamic resistance.
2. Design a constant voltage circuit from an unregulated power supply.
3. Design a Bridge Rectifier for the given ripple factor.
4. Design a C filter & LC filter used in power supply.
5. Determine h-parameters of BJT in Common Emitter Configuration.
6. For the given operating point, design a self bias circuit using BJT.
7. Design and verify a CE amplifier for the given gain.
8. Design and verify a Voltage variable resistor using JFET.
9. Design an ON-OFF switch using BJT.
10. Design and Verify diode clipper circuits.
11. Design and verify Clamper Circuits using diodes.
12. Design a comparator using Op-Amp.
13. Create PCB layout of an RC Circuit.
14. Create PCB layout of a Voltage Regulator.
15. Create PCB layout of an Astable Multivibrator.
16. Testing of an electronic Circuit on PCB.

Note: Any **TWELVE** of the experiments are to be conducted
