

COURSE NAME: NETWORK ANALYSIS LABORATORY

Branch : ECE
Year : I B.Tech
Semester : II Semester



Lab Instructor

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Lab Technician

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Course Objectives:

1. To provides the students to get an electrical model for various semiconductor devices.
2. To familiarize the student to find and plot V-I Characteristics of all semiconductor devices.
3. To familiarize the student to construct and analyze the various three phase circuit's star and delta connections.
4. To distinguish between tie set and cut set methods for solving various circuits
5. To design various types of filters.

Course Outcomes:

1. The students able to learn electrical model for various semiconductor devices and learns the practical applications of the semiconductor devices.

List of Experiments:

1. P-N Junction Diode Characteristics.
 - a. Germanium Diode (Forward bias & Reverse bias).
 - b. Silicon Diode (Forward bias only).
2. Zener Diode Characteristics.
 - a. V-I Characteristics.
 - b. Zener Diode act as a Voltage Regulator.
3. Rectifiers (without and with c-filter).
 - a. Half-wave Rectifier.
 - b. Full-wave Rectifier.
4. BJT Characteristics (CE Configuration).
 - a. Input Characteristics.
 - b. Output Characteristics.
5. FET Characteristics (CS Configuration).
 - a. Drain (Output) Characteristics.
 - b. Transfer Characteristics.
6. SCR Characteristics.
7. UJT Characteristics.
8. Transistor Biasing.
9. CRO Operation and its Measurements.
10. BJT-CE Amplifier.
11. Emitter Follower-CC Amplifier.

Equipment required for the Laboratory:

Regulated Power Supplies, Analog/Digital Storage Oscilloscopes, Analog/Digital Function Generators, Ammeters (Analog or Digital), Voltmeters (Analog or Digital), Digital Multi-meters, Active & Passive Electronic Components.

Note: - Ten experiments must be conducted in above List of Experiments