

**II Year - I Semester**

<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
<b>0</b>	<b>0</b>	<b>3</b>	<b>2</b>

**ELECTRONIC DEVICES AND CIRCUITS LAB**

**Note:** The students are required to perform the experiment to obtain the V-I characteristics and to determine the relevant parameters from the obtained graphs.

**Electronic Workshop Practice:**

1. Identification, Specifications, Testing of R, L, C Components (Colour Codes), Potentiometers, Coils, Gang Condensers, Relays, Bread Boards.
2. Identification, Specifications and Testing of active devices, Diodes, BJTs, JFETs, LEDs, LCDs, SCR, UJT.
3. Soldering Practice- Simple circuits using active and passive components.
4. Study and operation of Ammeters, Voltmeters, Transformers, Analog and Digital Multimeter, Function Generator, Regulated Power Supply and CRO..

**List of Experiments: (Minimum of Ten Experiments has to be performed)**

1. P-N Junction Diode Characteristics  
Part A: Germanium Diode (Forward bias & Reverse bias)  
Part B: Silicon Diode (Forward Bias only)
2. Zener Diode Characteristics  
Part A: V-I Characteristics  
Part B: Zener Diode as Voltage Regulator
3. Rectifiers (without and with c-filter)  
Part A: Half-wave Rectifier  
Part B: Full-wave Rectifier
4. BJT Characteristics (CE Configuration)  
Part A: Input Characteristics  
Part B: Output Characteristics
5. FET Characteristics (CS Configuration)  
Part A: Drain Characteristics  
Part 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
12. FET-CS Amplifier

**Equipment required:**

1. Regulated Power supplies
2. Analog/Digital Storage Oscilloscopes
3. Analog/Digital Function Generators
4. Digital Multimeters
5. Decade Résistance Boxes/Rheostats
6. Decade Capacitance Boxes
7. Ammeters (Analog or Digital)
8. Voltmeters (Analog or Digital)
9. Active & Passive Electronic Components