**17EC21P1-ELECTRONIC DEVICES LAB**

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| **Course Category:** | Program Core | **Credits:** | 2 |
| **Course Type:** | Practical | **Lecture-Tutorial-Practical:** | 0-0-3 |
| **Pre-requisite:** | Basic Electrical Sciences and Electronic Devices | **Sessional Evaluation:**  **External Exam Evaluation:**  **Total Marks:** | 40  60  100 |

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| **Course Objectives:** | 1. Understand the characteristics of various Electronic Devices.  2. Demonstrates the uses and applications of semiconductor devices.  3. Determine the typical values of various electronic devices.  4. Plot the characteristics of various devices in terms of V & I.  5. Draw their equivalent circuits used in Electronic Circuits. | |
| **Course Outcomes:** | After completing the course the student will be able to | |
| CO1 | Understand the concepts of semiconductor devices. |
| CO2 | Use the devices for various switching applications. |
| CO3 | Design various electronic circuits using these devices. |
| CO4 | Apply the equivalent circuits to evaluate the typical parameters. |
| CO5 | Justify whether the devices are used in different commercial applications or not. |
|  | Minimum of 10 experiments to be conducted out of the following:  **List of Experiments**   1. P-N Junction Diode Characteristics (Ge & Si) 2. Zener Diode Characteristics 3. Bi-Polar Junction Transistor Characteristics (CE Configuration) 4. Junction Field Effect Transistor Characteristics 5. Uni-Junction Transistor Characteristics 6. Light Emitting Diode Characteristics 7. Light Dependent Resistor Characteristics 8. Photo Transistor Characteristics 9. Thermistor Characteristics 10. DIAC Characteristics 11. Bi-Polar Junction Transistor Characteristics (CB Configuration) 12. TRAIC Characteristics | |