ANALOG AND DIGITAL CIRCUITS LAB

(Common to CSE, IT)

Course Code: 15EC1147

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Course outcomes:

At the end of the course the student will be able to

CO 1 Gains hands on experience in handling electronic components and devices.

CO 2 Verify the characteristics of various Semiconductor devices (Diode, LED, BJT, FET)

CO 3 Design and Implement Amplifier, Oscillator using BJT

CO 4 Design and Implement various Logic gates using Discrete Components

CO 5 Design and Implement various Combinational and Sequential Circuits using ICs

Note: Any FIVE experiments from PART –A and FIVE experiments from Part- B are to be conducted.

List of experiments:

PART- A

1. PN Junction diode characteristics.
2. Zener Diode Characteristics.
3. Rectifiers without filters (Full wave & half wave).
4. Transistor CE characteristics.
5. FET Characteristics.
6. CE Amplifier.
7. FET Amplifier.
8. RC Phase shift oscillator.

PART –B

1. Study of Logic Gates using Discrete Components.
2. Half Adder and Full Adder.
3. Encoder and Decoder.
4. Multiplexer and Demultiplexer.
5. Flip-flops.
6. Asynchronous Counter.
7. Synchronous Counter.
8. Shift Registers.