

EE307PC: ANALOG ELECTRONICS LAB**II Year B.Tech. EEE I-Sem**

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Prerequisite: Analog Electronics**Course Objectives:**

- To introduce components such as diodes, BJTs and FETs their switching characteristics, applications
- Learn the concepts of high frequency analysis of transistors.
- To give understanding of various types of basic and feedback amplifier circuits such as small signal, cascaded, large signal and tuned amplifiers.
- To introduce the basic building blocks of linear integrated circuits.
- To introduce the concepts of waveform generation and introduce some special function ICs.

Course Outcomes: At the end of this course, students will demonstrate the ability to

- Know the characteristics, utilization of various components.
- Understand the biasing techniques
- Design and analyze various rectifiers, small signal amplifier circuits.
- Design sinusoidal and non-sinusoidal oscillators.
- A thorough understanding, functioning of OP-AMP, design OP-AMP based circuits with linear integrated circuits.

List of Experiments

1. PN Junction diode characteristics A) Forward bias B) Reverse bias.
2. Full Wave Rectifier with & without filters
3. Common Emitter Amplifier Characteristics
4. Common Base Amplifier Characteristics
5. Common Source amplifier Characteristics
6. Measurement of h-parameters of transistor in CB, CE, CC configurations
7. Inverting and Non-inverting Amplifiers using Op Amps.
8. Adder and Subtractor using Op Amp.
9. Integrator Circuit using IC 741.
10. Differentiator circuit using Op Amp.
11. Current Shunt Feedback amplifier
12. RC Phase shift Oscillator
13. Hartley and Colpitt's Oscillators
14. Class A power amplifier