

Name of the laboratory: Analog Electronics

Course Objectives:

At the end of this course, the student will be able to:

- To develop an ability to study basic electronic components
- To observe characteristics of amplifiers

Course Outcomes:

At the end of the course the students can able to

CO1: Design and test BJT amplifiers and JFET/MOSFET amplifiers.

CO2: Design and test power amplifiers and tuned amplifiers.

CO3: Design and test various types of oscillators and feedback amplifiers

List of the equipment:

1. Regulated Power supplies (RPS) : 0-30 V
2. CRO's: 0-20 MHz.
3. Function Generators: 0-1 MHz.
4. Multimeters
5. Decade Resistance Boxes/Rheostats
6. Decade Capacitance Boxes
7. Ammeters (Analog or Digital): 0-20 μ A, 0-50 μ A, 0-100 μ A, 0-200 μ A, 10 mA.
8. Voltmeters (Analog or Digital): 0-50V, 0-100V, 0-250V
9. Trainer Boards

List of experiments:

1. Common Emitter Amplifier
2. Common Base Amplifier
3. Common Source amplifier
4. Two Stage RC Coupled Amplifier
5. Current Shunt Feedback Amplifier
6. Voltage Series Feedback Amplifier.
7. Cascode Amplifier
8. Wien Bridge Oscillator using Transistors
9. RC Phase Shift Oscillator using Transistors
10. Class A Power Amplifier (Transformer less)
11. Class B Complementary Symmetry Amplifier
12. Hartley Oscillator
13. Colpits Oscillator
14. Single Tuned Amplifier

