Course Code	Course Name	Credits
26PH156	BASIC ELECTRONICS LAB	02

Objective

The objective of this laboratory course is to enable students to understand and verify fundamental principles of basic electronics through experimental methods. Students will develop practical skills in conducting experiments, taking accurate measurements, analyzing data, and interpreting results.

1. Determine the characteristics of basic Op-amp.
2. Determine the frequency modulation of AM and FM using CRO.
3. Study the transistor as switch-calculator of ON and OFF state resistance.
4. Study the low-pass and high-pass filter using OP-AMP.
5. Construction and study the Wien Bridge oscillator using OP-AMP.
6. Study the voltage regulations of Zener diode.
7. Study the Characteristics of junction diode.
8. Study the characteristics of Bridge rectifier using diodes.
9. Study of Clipping and clamping circuits using diodes.
10. Determine the characteristics of a transistor using Common emitter transistor connection. (CE mode).
11. Study the RC coupled Common Emitter transistor amplifier for single stage
12. Determine the characteristics of Transistor Emitter follower
13. Measurement of unknown capacitance using DE-Sauty bridge(Capacitance bridge)
14. Determine the decay constant of capacitor using Decay constant condenser.
15. Determine AC voltage using CRO.
16. Determine the FET – characteristics using FET characteristics apparatus.
17. Determine the UJT – characteristics using UJT characteristics apparatus.
18. Determine the inverting amplifier and non-inverting characteristics of operational amplifier.
19. Determine the differentiation & integrator characteristics of operational amplifier.
20. Study the characteristics of Hartley oscillator using transistor.

Students are required to perform and record at least eight experiments in the laboratory manual as part of the course requirements.