EC-356

PULSE CIRCUITS & ICS LAB

L T P C - - 3 2

COURSE OBJECTIVES:

- 1. To design and obtain the responses of linear and nonlinear wave shaping circuits for standard inputs.
- 2. To design and analyze of multivibrators using BJT's.
- 3. To design a high voltage and a low voltage regulator using IC 723.
- 4. To design a PLL using IC 566 and a VCO using IC 565.

COURSE OUTCOMES:

After successful completion of the course, the students are able to

- 1. compare the theoretical and practical values of adder and subtractor using op-amp.
- 2. design circuits using opamp to generate sine, square Aand triangular waveforms.
- 3. design regulator circuit using IC723.
- 4. Design D to A converter circuit using IC721.

List of Experiments:

- 1. Linear Wave-Shaping.
- 2. Non-linear Wave-Shaping.
- 3. Design and Verification of Astable Multivibrator.
- 4. Design and Verification of Monostable Multivibrator.
- 5. Design and Verification of Schmitt Trigger (using discrete components and IC741).
- 6. Measurement of Op-amp Parameters.
- 7. Applications of Op-amp (Adder, Subtractor, Integrator, Differentiator).
- 8. Instrumentation Amplifier using Op-Amp.
- 9. Waveform Generation using Op-amp (Square, Triangular).
- 10. Design of Active Filters (LPF & HPF- First Order).
- 11. Application of 555 Timer (Astable, Monostable).
- 12. PLL using 565.
- 13. Design of IC Regulator using 723.
- 14. Design of VCO using 566.
- 15. D-A Converter (R-2R Ladder).
- **Note:** A minimum of 10(Ten) experiments have to be Performed and recorded by the candidate to attain eligibility for Semester End Practical Examination.