# EE8461 LINEAR AND DIGITAL INTEGRATED CIRCUITS LABORATORY

DETAILED SYLLABUS

## OBJECTIVES:

- To learn design, testing and characterizing of circuit behavior with digital and analog ICs.

## LIST OF EXPERIMENTS

1. Implementation of Boolean Functions, Adder and Subtractor circuits.

2. Code converters: Excess-3 to BCD and Binary to Gray code converter and vice-versa

3. Parity generator and parity checking

4. Encoders and Decoders

5. Counters: Design and implementation of 3-bit modulo counters as synchronous and Asynchronous types using FF IC's and specific counter IC.

6. Shift Registers: Design and implementation of 4-bit shift registers in SISO, SIPO, PISO, PIPO modes using suitability IC's.

7. Study of multiplexer and de multiplexer

8. Timer IC application: Study of NE/SE 555 timer in Astability, Monostability operation.

9. Application of Op-Amp: inverting and non-inverting amplifier, Adder, comparator, Integrator and Differentiator.

10. Voltage to frequency characteristics of NE/ SE 566 IC.

11. Variability Voltage Regulator using IC LM317.