

# ANALOGUE COMMUNICATION LAB

(Core Subject)

<b>Course Code:</b>	10B17EC473	<b>Semester:</b>	4 <sup>th</sup> Semester, B. Tech (ECE)
<b>Credits:</b>	1	<b>Contact Hours:</b>	L-0, T-0,P-2

## Course Objectives

1. Familiarize the students with basic analog communication systems. Integrate theory with experiments so that the students appreciate the knowledge gained from the theory course, e.g., amplitude and frequency modulation, pulse modulation

## Course Outcomes

After studying this course the students shall be able to:

1. Design analog modulation circuits as amplitude and frequency modulation.
2. Design various pulse modulation techniques as PAM, PPM, PWM.
3. Design the circuit to sample an analog signal.

## List of Experiments

1. To design and implement Amplitude modulator and Demodulator.
2. To design and implement DSB-SC modulator using Balance modulator.
3. To implement a Phase Lock Loop circuit and calculate it's Specifications.
4. To design and implement Frequency Modulator and Demodulator
5. To design and implement Frequency Division Multiplexer and De-multiplexer
6. To design and implement Pulse Amplitude Modulator (PAM) and Demodulator.
7. To design and implement Pulse Width Modulator (PWM)
8. To design and implement Pulse Position Modulator (PPM)
9. To design and implement sample and hold circuit.
10. To design and obtain the characteristics of a mixer circuit.
11. To design and implement the Pre-emphasis and De-emphasis circuits.

## Evaluation Scheme

1. Mid Sem Evaluation	20 Marks
2. End Sem Evaluation	20 Marks
3. Attendance	15 Marks
4. Class response	30 Marks
5. File	15 Marks

**Total Marks** **100 Marks**

## **Text Books**

1. Haykin, Simon : An introduction to analog and digital communications. John Wiley & Sons.
2. Lathi, B.P. : Modern Analog and Digital Communication Systems. Oxford.