**EC4L1**          **Analog Communications Lab**          **Credits: 2**

**Lecture: ---**                              **Internal assessment: 25 marks**
**Lab    : 3 periods/week**          **Semester end examination: 50 marks**
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**Course Objectives:**

* The purpose of this lab is to train the students to analyze the analog and pulse modulation and    demodulation techniques and understand their performance using both hardware and MATLAB

**Learning Outcomes:**

At the end of the lab session, students are able to demonstrate
* Experiments band on AM and FM modulation/demodulation
* Study of various parameters in AM/FM receivers
* Generation and demodulation of PAM,PWM and PPM using MATLAB Programming

**NOTE: Minimum of 10 experiments has to be performed and recorded by the candidate to attain eligibility for External Practical Examination.**

**List of Experiments:**

1. Amplitude Modulation and Demodulation

2. DSB SC Modulation and Demodulation

3. Frequency Modulation and Demodulation

4. Pre Emphasis  and De Emphasis Circuits

5. PAM Generation and Reconstruction

6. PWM Generation and Reconstruction

7. PPM Generation and Reconstruction.

8. Spectral analysis of AM and FM signals using spectrum analyzer.

9. Phase locked loop.

10. Characteristics of Super heterodyne receiver

11. Amplitude modulation using MATLAB

12. DSBSC modulation using MATLAB

13. SSB modulation using MATLAB.

14. Frequency modulation using MATLAB.

15. Pulse width modulation using MATLAB.