



III Year-I1 Semester	L	T	P	C
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## DIGITAL COMMUNICATION LAB (RT32047)

### Prerequisite Course:

Analog communication lab

### Course Description and Objectives:

- To know the steps involved in the analysis of digital communication system.
- To know how to synthesize a digital communication module with the given specifications.

### Course Outcomes:

Upon completion of the course, the student will be able to achieve the following outcomes.

COs	Course Outcomes	POs
1	The skill to analyze and implement analog to digital converters like PCM, DM, DPCM	3
2	The ability to visualization and practical implementation of baseband modulation techniques.	3
3	The ability to analyze the practical implementation of encoder and decoder of linear block code and binary cyclic code convolution code.	3
4	The ability to understand the practical implementation of digital modulation techniques	3

## SYLLABUS

### **LIST OF EXPERIMENTS:**

1. Time division multiplexing.
2. Pulse code modulation.
3. Differential pulse code modulation.
4. Delta modulation.
5. Frequency shift keying.
6. Phase shift keying .
7. Differential phase shift keying.
8. Companding
9. Source Encoder and Decoder
10. Linear Block Code-Encoder and Decoder

11. Binary Cyclic Code - Encoder and Decoder

12. Convolution Code - Encoder and Decoder

**Equipment required for Laboratories:**

1. RPS - 0 – 30 V

2. CRO - 0 – 20 M Hz.

3. Function Generators - 0 – 1 M Hz

4. RF Generators - 0 – 1000 M Hz./0 – 100 M Hz.

5. Multimeters

6. Lab Experimental kits for Digital Communication

7. Components

8. Radio Receiver/TV Receiver Demo kits or Trainees.