VIDYA JYOTHI INSTITUTE OF TECHNOLOGY HYDERABAD

IIIYear B.Tech. ECE I-Sem **L T P C**

0 0 3 2

Analog Communications Lab

Course Outcomes:

A15488	Course Outcomes
1	To implement and verify the different techniques in Amplitude modulation.
2	To Analyze and interpret the results in frequency domain using the spectrum Analyzer
3	To recite and relate the frequency modulation and demodulation
4	To implement and summarize the different digital modulation and demodulation methods

List of Experiments (Minimum 12 Experiments have to be conducted)

1. Amplitude Modulation & Demodulation
2. DSB-SC Modulator & Detector
3. SSB-SC Modulator & Detector
4. Frequency Modulation & Demodulation
5. Study of Spectrum analyser & analysis of AM & FM Signals
6. Pre-emphasis & De-emphasis
7. Time Division Multiplexing & Demultiplexing
8. Frequency Division Multiplexing & Demultiplexing
9. Verification of sampling theorem

10. Pulse Amplitude Modulation &Demodulation
11. Pulse Width Modulation &Demodulation
12. Pulse Position Modulation &Demodulation
13. Frequency Synthesizer
14. AGC Characteristics
15. PLL as FM Demodulator

Equipment:

CRO (0-20MHz)	12
Function Generator 0-1MHZ	12
Amplitude Modulation Kit	3
DSB-SC Kit	3
SSB-SC Kit	3
FM Kit	3
PLL Kit	3
Pre emphasis & De emphasis Kit	3
TDM Kit	3
FDM	3
Sampling Theorem Kit	3
PAM Kit	3
PWM Kit	3
PPM Kit	3
Frequency synthesizer Kit	3
AGC Characteristics	3
Computers	30
Matlab Licenced Software	30
spectrum analyzer(60MHz)	1
Multimeters	12
RF Generator (0-100MHz)	1

VIDYA JYOTHI INSTITUTE OF TECHNOLOGY HYDERABAD

IVYear B.Tech. ECE I-Sem **L T P C**

0 0 3 2

Digital Communications Lab

Course Outcomes:

A17492	Course Outcomes
1	To Understand and implement the basics of sampling theorem
2	To analyze and interpret the different pulse modulation techniques
3	To illustrate and show the various shift keying techniques
4	To implement and verify the delta modulation

List of Experiments (Minimum 8 Experiments have to be conducted)

1. PCM Generation and Detection
2. Differential Pulse Code Modulation
3. Delta Modulation
4. Time Division Multiplexing of 2 Band Limited Signals
5. Frequency shift keying: Generation and Detection
6. Phase Shift Keying: Generation and Detection
7. Amplitude Shift Keying: Generation and Detection
8. Study of the spectral characteristics of PAM, QAM

9. DPSK :Generation and Detection
10. QPSK: Generation and Detection

Equipment:

C.R.O.S (0-20 MHZ)	12
Regulated power supllies (0-30v)	2
Function Generators (0-1 MHZ minimum)	12
Fuction Generators 0-10Mhz / RF Generator 0-100Mhz	1
PCM Modulator & Demodulator Kits	2
Differential Pulse Modulator & Demodulator Kits	2
Delta Modulator & Demodulator Kits	2
Digital Time Division Multiplexing Modulator & Demodulator Kits	2
Frequency shift keying Modulator & Demodulator Kits	2
Phase Shift Keying Modulator & Demodulator Kits	2
Amplitude Shift Keying Modulator & Demodulator Kits	2
PAM Modulator & Demodulator Kits	2
QAM Modulator & Demodulator Kits	1
DPSK Modulator & Demodulator Kits	2
QPSK Modulator & Demodulator Kits	1