



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY: KAKINADA

KAKINADA-533003, Andhra Pradesh, India

R-13 Syllabus for ECE, JNTUK

| II Year-II Semester | L | T | P | C |
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ANALOG COMMUNICATIONS LAB (RT22047)

Prerequisite Course:

Need basic idea of Analog communication subject

Course Outcomes:

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

| COs | Course Outcomes | POs |
|-----|--|-----|
| 1 | understands various amplitude modulation and demodulation techniques | 3 |
| 2 | understands frequency modulation and demodulation technique. | 3 |
| 3 | understand various angle modulation and demodulation. | 3 |
| 4 | Create programs and can simulate in matlab different modulation techniques | 3 |

SYLLABUS

List of Experiments (Twelve experiments to be done) - (a. Hardware,
b. MATLAB Simulink, c. MATLAB Communication tool box)

- A. Amplitude Modulation - Mod. & Demod.
- B. AM - DSB SC - Mod. & Demod.
- C. Spectrum Analysis of Modulated signal using Spectrum Analyser
- D. Diode Detector
- E. Pre-emphasis & De-emphasis
- F. Frequency Modulation - Mod. & Demod.
- G. AGC Circuits
- H. Sampling Theorem
- I. Pulse Amplitude Modulation - Mod. & Demod.
- J. PWM , PPM - Mod. & Demod.
- K. PLL

Equipments & Software required:

Software :

- i.) Computer Systems with latest specifications
- ii) Connected in Lan (Optional)
- iii) Operating system (Windows XP)
- iv) Simulations software (Simulink & MATLAB)

Equipment:

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1. RPS - 0 – 30 V
2. CRO - 0 – 20 M Hz.
3. Function Generators - 0 – 1 M Hz
4. Components
5. Multimeters
6. Spectrum Analyser