



### **COMMUNICATION SYSTEMS LABORATORY:**

Communication systems lab is one of the laboratories in the department which conveys the fundamental knowledge related to analog and digital modulation & demodulation concepts using software simulation tools and hardware implementations. The communication systems laboratory helps the students to understand the basic principles of communication systems by practical module systems. This laboratory includes experiments both in analog communication and digital communication. The experiments are designed in such a way that the theoretical concepts introduced in lectures are re-discussed and implemented practically. The experiments deals with analog communication basics such as amplitude modulation, frequency modulation, time division multiplexing, phase locked loop, pulse modulation, pulse code modulation, and signaling techniques: PSK, FSK, DPSK, and QPSK.

#### **Hardware Facilities:**

- Digital Storage Oscilloscope
- Cathode Ray Oscilloscope
- Spectrum Analyzer
- Antenna Kits
- Function Generators
- Analog Modulator and Demodulator Trainer Kits
- Digital Modulator and Demodulator Trainer Kits
- Frequency Mixer Kit
- TDM PCM Transmitter Receiver Trainer Kits
- Delta Modulation Demodulation Trainer Kits



Figure: Communication systems LAB



**P.B.R. VISVODAYA INSTITUTE OF TECHNOLOGY & SCIENCE  
(AUTONOMOUS)**

*(Affiliated to J.N.T.U.A, Approved by AICTE and Accredited by NAAC)*  
KAVALI – 524201, S.P.S.R Nellore Dist., A.P. India. Ph: 08626-243930



**DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING**



Figure: Communication systems Lab Equipment