SASI INSTITUTE OF TECHNOLOGY & ENGINEERING

KADAKATLA, TADEPALLIGUDEM - 534 101, W.G.Dt., (A.P.)

Department of Electronics and Communication Engineering
Communication Laboratory

Description:

- This laboratory enables II year II Semester, III year I Semester ECE students to perform the various experiments in the area of analog/digital communication as well as microwave & optical communications.
- Major facilities/equipments: Basic communication trainer kits, CRO, Function Generator.

Faculty In-Charge	**:Mr.P.R.Mahidhar**
Technician	**:Smt.D.Srikala**
Area	**:75.43 Sqm**
Total Investment	**:Rs. 10, 26,981.07**
No. of experiments	**: Analog Communications Laboratory (14)** **Digital Communications Laboratory (14)**
Courses conducted	**: Analog Communication, Digital Communication**
Exclusive / Shared	**: Exclusive**

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List of Equipment

S.No.	Equipment Name	Qty
1	30MHz Dual Trace Oscilloscope	09
2	100MHz 2 channel, 6Trace Oscilloscope with delayed sweep	01
3	100 MHz color 1GS/5 DSO	01
4	DC Multi output power supply	08
5	Dual display tracking power supply	04
6	FT-2602 Function generator 1 MHz	10
7	1 MHz Function generator	04
8	2 MHz Function generator/counter	01
9	10 MHz Function Generator	05
10	Spectrum analyzer (0.15 MHz-500 MHz)	01
11	Pulse Generator	05
12	Advanced analog communication training system	01
13	AL-001 Fiber Optic Analog Kit For Plastic Fiber Kit	01
14	Act -05 Filter-Noise& Audio Amplifier Kit	01
15	AL-01Fiber optic analog link for plastic fiber	01
16	AC-09 AM/FM Radio receiver kit	01
17	DSP -320 TMS 320XXXX DSP Triner kit	02
18	DCL -07 Companding kit	02
19	Pulse and Digital Modulation trainer kits	14
20	ADCL-08 CRC Encoder/Decoder & MSK modulation/ Demodulation kit	2
21	ADCL-06 Convolution Encoder & Viteribi decoder	2
22	Digital Multimeters & Analog Meters	32

Department of Electronics and Communication Engineering
Analog Communications Laboratory

List of Experiments as per Syllabus

S.No.	Name of the Experiment
1.	Amplitude Modulation - Mod. & Demod.
2.	AM - DSB SC - Mod. & Demod.
3.	Diode Detector
4.	Pre-emphasis & De-emphasis
5.	Frequency Modulation - Mod. & Demod.
6.	Sampling Theorem
7.	Pulse Amplitude Modulation - Mod. & Demod.
8.	PWM, PPM - Mod. & Demod.
9.	PLL
10.	Amplitude Modulation - Mod. & Demod using MATLAB & Simulink.
11.	AM - DSB SC - Mod. & Demod using MATLAB & Simulink.
12	Sampling Theorem using MATLAB & Simulink.

List of Experiments beyond the Syllabus

S.No.	Name of the Experiment
1.	Frequency Modulation, PPM using MATLAB
2.	PWM using MATLAB & Simulink

Department of Electronics and Communication Engineering
Digital Communications Laboratory

List of Experiments as per Syllabus

S.No.	Name of the Experiment
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

List of Experiments beyond the Syllabus

S.No.	Name of the Experiment
1.	Amplitude shift keying.
2.	Adaptive Delta modulation.
3.	Simulation of Digital modulation techniques using MATLAB.