



**sasi** INSTITUTE OF  
TECHNOLOGY &  
ENGINEERING

Department of Electronics & Communication Engineering

Accredited by **NBA & NAAC** with "**A**" Grade  
Recognised by **UGC** under sections 2(f) & 12(B)  
Approved by **AICTE** - New Delhi  
Permanently Affiliated to **JNTUK, SBTET**  
Ranked as "**A**" Grade by Govt. of 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
- Major facilities/equipments: Basic communication trainer kits, CRO, Function Generator.

<b>Faculty In-Charge</b>	<b>: Mr.J.Lakshmi Narayana</b>
<b>Technician</b>	<b>: Smt.D.Srikala</b>
<b>Area</b>	<b>: 75.43 Sqm</b>
<b>Total Investment</b>	<b>: Rs. 14,73,093.99</b>
<b>No. of experiments</b>	<b>: Analog Communications Laboratory(14) Digital Communications Laboratory (14)</b>
<b>Courses conducted</b>	<b>: Analog Communication, Digital Communication</b>
<b>Exclusive / Shared</b>	<b>: Exclusive</b>



**sasi** INSTITUTE OF  
TECHNOLOGY &  
ENGINEERING

Department of Electronics & Communication Engineering

Accredited by **NBA & NAAC** with "A" Grade  
Recognised by **UGC** under sections 2(f) & 12(B)  
Approved by **AICTE** - New Delhi  
Permanently Affiliated to **JNTUK, SBTET**  
Ranked as "A" Grade by Govt. of A P

**Department of Electronics and Communication Engineering  
Communication Laboratory**

**List of Major Equipment**

<b>S.NO</b>	<b>Major equipment</b>	<b>Quantity</b>	<b>Cost</b>
1	Spectrum Analyzer	1	159750.00
2	30MHz Dual Trace Oscilloscope	9	152895.60
3	50MHz Digital Storage Oscilloscope	5	101175.00
4	Spectrum Analyzer (0.15MHz-500MHz)	1	88546.00
5	100MHz clour 1GS/5 DSO	1	68952.00
6	100MHz 2 Channel,6 Trance Oscilloscope	1	63290.50
7	20MHz Dual Trance Oscilloscope	5	21537.76
8	DC Multi output power supply	20	105757.17
9	10MHz Function Generator	9	96585.20
10	FT-2602 1MHz Function Generator	19	53168.54
11	2 MHz Function Generator/counter	1	10974.60
12	Pulse Generator	5	53625.00
13	Advanced analog communication training system	1	91270.35
14	AL-001 Fiber Optic Analog kit for Plastic Fiber kit	1	12009.50
15	Act-05 Filter-Noise & Audio Amplifier kit	1	11529.00
16	AL-01 Fiber Optic Analog kit for Plastic Fiber kit	1	14063.00
17	AC-09 AM/FM Radio receiver kit	1	12938.00
18	DSP-320 TMS 320XXXX DSP Trainer kit	2	38250.00
19	DCL-07 Companding kit	2	38250.00
20	ADCL-08 CRC Encoder/Decoder & MSK modulation	2	25875.00
21	Demodulation kit		
22	ADCL-06 Convolution Encoder & Viteribi Decoder	2	25875.00
	3½ Digital Multimeter Meco 603	13	17324.97
23	Mr-100.Mc.Dc.Analog Meters with Desk Stand	22	7824.96
24	Desktop Model Digital Meters	6	5481.00
25	Analog Modulation & Demodulation Trainer Kits	25	24494.62
26	Pulse & Digital Modulation & demodulation Kits	34	171651.22
<b>Total cost =</b>			<b>14,73,093.99</b>



**sasi** INSTITUTE OF  
TECHNOLOGY &  
ENGINEERING

Department of Electronics & Communication Engineering

Accredited by **NBA & NAAC** with **"A" Grade**  
Recognised by **UGC** under sections 2(f) & 12(B)  
Approved by **AICTE** - New Delhi  
Permanently Affiliated to **JNTUK, SBTET**  
Ranked as **"A" Grade** by Govt. of A P

## Department of Electronics and Communication Engineering Analog Communications Laboratory

### List of Experiments as per Syllabus

S.No.	Name of The Equipment
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 Mod, & Demod.
8.	PWM, PPM Mod.& Demod.
9.	PLL
10.	AGC characteristics
11.	Spectrum analyzer
12.	Radio receivers

### List of Experiments beyond the Syllabus

S.No.	Name of The Equipment
1.	SSB Modulation and Demodulation using MATLAB Simulink
2.	Frequency Division and Multiplexing and Demultiplexing using MATLAB



**sasi** INSTITUTE OF  
TECHNOLOGY &  
ENGINEERING

Department of Electronics & Communication Engineering

Accredited by **NBA & NAAC** with **"A" Grade**  
Recognised by **UGC** under sections 2(f) & 12(B)  
Approved by **AICTE** - New Delhi  
Permanently Affiliated to **JNTUK, SBTET**  
Ranked as **"A" Grade** by Govt. of A P

## Department of Electronics and Communication Engineering Digital Communications Laboratory

### List of Experiments as per Syllabus

S.No.	Name of The Equipment
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 as per beyond the Syllabus

S.No.	Name of The Equipment
1.	Amplitude Shift Keying.
2.	Adaptive Delta Modulation.