



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
Electronic Circuits Laboratory

Description:

This laboratory enables III year I Semester ECE and III year II Semester ECE students to perform the various experiments in the area of Electronic Circuits.

Major Equipment: Cathode Ray Oscilloscopes, DC Power supplies, Function Generators, Digital Electronic Trainer Kits

Faculty In-Charge	: Mr. K Maruthi
Technician	: A Srinivas
Area	: 66 Sq.mt
Total Investment	: Rs. 4,41,682.21/-
No. of experiments	: Electronic Circuit Analysis (14) Pulse and Digital Circuits (14)
Courses conducted	: Electronic Circuit Analysis Laboratory Pulse and Digital Circuits Laboratory
Exclusive / Shared	: Exclusive





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List of Equipment

S.No	NAME OF THE EQUIPMENT	QUANTITY	TOTAL COST
1	50MHz Digital Storage Oscilloscope	06	1,51,200.00
2	10MHz Function Pulse Generator Model:4061	05	44,611.00
3	0-30/3A Variable 5V Fixed Multi Channel Power Supply Model:PS-303D	12	84,375.00
4	Resistance Decade Box (1C to 11.11MΩ)	12	36,450.00
5	Capacitance Decade Box (100pF to 11.11μF)	12	48,600.00
6	33/4 Digital Multimeters	6	8,775.00
7	Digital DC Voltmeters (0-250) volts	12	7,425.00
8	Digital DC Ammeters (0-5) A	12	7,425.00
9	Digital DC Micro Ammeters (0-500) μA	12	7,425.00
10	20MHz Cathode Ray Oscilloscope	1	4307.56
11	20MHz Cathode Ray Oscilloscope	4	24222.10
12	2MHz Function Pulse Generator	3	8102.70
13	1MHz Function Generator Digital Model: FGC-18	1	2609.15
14	Fixed Regulated Power supply +/-15V, +/-12V, +/-6V	1	2319.49
15	Regulated Power supply Single Channel (30v/2A)	2	1789.13
16	Rectifiers and Filters	2	921.49
17	Class-B Push-pull Amplifier Kit	2	1124.59
			4,41,682.21



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Department of Electronics and Communication Engineering Electronic Circuits Laboratory

List of Experiments :(Minimum of Ten Experiments has to be performed)

1. Determination of f_T of a given transistor.
2. Voltage-Series Feedback Amplifier
- . Current-Shunt Feedback Amplifier
4. RC Phase Shift/Wien Bridge Oscillator
5. Hartley/Colpitt's Oscillator
6. Two Stage RC Coupled Amplifier
7. Darlington Pair Amplifier
8. Bootstrapped Emitter Follower
9. Class A Series-fed Power Amplifier
10. Transformer-coupled Class A Power Amplifier
11. Class B Push-Pull Power Amplifier
12. Complementary Symmetry Class B Push-Pull Power Amplifier
13. Single Tuned Voltage Amplifier
14. Double Tuned Voltage Amplifier



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Department of Electronics and Communication Engineering Pulse and Digital Circuits Laboratory

1. Linear wave shaping.
2. Non Linear wave shaping – Clippers.
3. Non Linear wave shaping – Clampers.
4. Transistor as a switch.
5. Study of Logic Gates & Some applications.
6. Study of Flip-Flops & some applications.
7. Sampling Gates.
8. Astable Multivibrator.
9. Monostable Multivibrator.
10. Bistable Multivibrator.
11. Schmitt Trigger.
12. UJT Relaxation Oscillator.
13. Bootstrap sweep circuit.