



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 IC/PDC Laboratory

Description:

- This laboratory enables II year II Semester, III year I Semester ECE students to perform the various experiments in the area of IC based analog circuits as well as digital circuits.
- Major facilities/equipments: CRO, Function Generator, IC Testers, Power supplies

Faculty In-Charge	: Mr.S.Rambabu
Technician	: Mr.M.Mallikarjuna Rao
Area	: 75.43 Sqm
Total Investment	: Rs. 9,20,529.29
No. of experiments	: Electronic Circuit Analysis Laboratory (14) Linear IC Applications Laboratory (14)
Courses conducted	: Electronic Circuit Analysis, Linear IC Applications
Exclusive / Shared	: Exclusive



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Department of Electronics and Communication Engineering
IC&PDC Laboratory

List of Major Equipment:

S.NO.	NAME OF THE EQUIPMENT	Qty	TOTAL COST
1	30MHz Dual Trace Oscilloscope (Model:3706C)	10	2,03,112.00
2	20MHz Dual Trace Oscilloscope,Model:05-5020,((Scientech)/caddo801)	19	2,77,022.58
3	Bread Board Trainer Systems BTS(301,302,304)	32	1,58,600.00
4	Analog&Digital IC Digital Lab Trainer	1	3900.00
5	2MHz Function Generator/Counter	13	98,243.71
6	8 Bit D/A& A/D converter Trainer Kit	1	1661.34
7	1.1GHZs8&1/2Gisit Frequency Counter	1	14,550.90
8	Digital IC Tester Model No: MME DIT-2040	1	13,295.00
9	Analog IC Tester ModelNo: MME-LIC T20	1	13,286.00
10	Decade Inductance Boxes 5 decades,Model No: DIB 505	15	21,060.00
11	4&1/2 Digit TRMS Digital Multimeter	1	16,562.00
12	10MHZs Pulse Generators Model No: 2114	5	51,460.50
13	Individual Trainers (PDC lab)	21	17,253.60
14	Digital Ammeters (0-200 μ A),(0-20mA),(0-200mA)	14	5204.60
15	Decade Capacitance Box 5 decades(100 pF-1 μ F)	4	1942.49
16	Decade Résistance Box 5 decades (10 to 1M Ω)	5	1789.14
17	DC Fixed Regulated power supplies(\pm 15V, \pm 12V, \pm 6V)	3	958.46
18	Regulated Power Supply(30V-2A,1A) (Single /Dual Channel)	10	12,353.53
19	Digital Voltmeter (0-2)V,(0-20)V,(0-30)V.	12	4894.47
20	Digital Multitmeter (Model No:M92A)(Meco,603)	3	3378.97
		Total	9,20,529.29



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Department of Electronics and Communication Engineering Electronic Circuit Analysis Laboratory

List of Experiments as per Syllabus

S.No.	Name of The Experiment
1.	Determination of f_T of a given transistor
2.	Voltage – Series Feedback Amplifier
3.	Current – Shunt Feedback Amplifier
4.	RC Phase Shift/ Wien Bridge Oscillator
5.	Hartley/ Colpitts Oscillator
6.	Two Stage RC Coupled Amplifier
7.	Darlington pair Amplifier
8.	Bootstrapped Emitter Follower
9.	Class A Series-fed Power Amplifier
10.	Single Tuned Voltage Amplifier
11.	Voltage – Series Feedback Amplifier
12.	Current – Shunt Feedback Amplifier

List of Experiments beyond the Syllabus

S.No.	Name of The Experiment
1.	Class B push-pull power Amplifier
2.	Complementary Symmetry Class B Push-Pull Power Amplifier



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Department of Electronics and Communication Engineering Linear IC Applications Laboratory

List of Experiments as per Syllabus

S.No.	Name of The Experiment
1.	OP AMP Applications – Adder, Subtractor, Comparator Circuits.
2.	Integrator and Differentiator Circuits using IC 741.
3.	Active Filter Applications – LPF, HPF (first order)
4.	Active Filter Applications – BPF, Band Reject (Wideband) and Notch Filters
5.	IC 741 Oscillator Circuits – Phase Shift and Wien Bridge Oscillators
6.	Function Generator using OP AMPs
7.	IC 555 Timer – Monostable Operation Circuit
8.	IC 555 Timer – Astable Operation Circuit.
9.	Schmitt Trigger Circuits – using IC 741 and IC 555.
10.	Voltage Regulator Using IC 723
11.	Three Terminal Voltage Regulators – 7805, 7809, 7912.
12.	4 bit DAC using OP AMP.

List of Experiments beyond the Syllabus

S.No.	Name of The Experiment
1.	Voltage to current converter
2.	Precision rectifier