

# **G. Narayanamma Institute of Technology and Science (For Women)**

**(AUTONOMOUS)**

## **Department of ECE**

### **ELECTRONIC DEVICES & CIRCUITS LAB**

#### **About the Laboratory**

This Physical laboratory is spread over an area of 87.32 Sq.meters, and is established with a budget of Rs4,40,203/-.. This lab not only serves as a basic curriculum lab in the ECE department for Electronic Devices and Circuits Lab and Analog circuits Lab, but also allows students to experiment with fundamental hobby projects, to become competent in understanding various fundamental measuring instruments and components of the electronic stream.

This lab acts as a center of activity for the students working on mini projects, students learning to meddle with basic soldiering activities, students trying to understand the elementary electronic components, their specifications, working and characteristics.

#### **Faculty associated with ELECTRONIC DEVICES & CIRCUITS LAB**

<b>S. No</b>	<b>Name of the faculty</b>	<b>Designation</b>	<b>Area of research</b>
1	V.Uma	Associate Professor	Image Processing

2	P.Sripadma	Assistant Professor	Systems and Signal Processing
3	Y.Rakesh Kumar	Assistant Professor	Digital image Processing
4	M.Lakshmi	Assistant Professor	Communication Engineering
5	C.Sridhar Babu	Assistant Professor	Communication and Signal processing
6	G.Krishna Kishore	Assistant Professor	VLSI system Design

## Photos



Fig: Electronics and Design Lab



Fig: Analog Electronics Lab

**Facilities** Electronic Devices & Circuits lab has two laboratories with the following hardware kits. The facilities are available for all faculty and students who would like to participate in R&D activities with respect to basic Electronic components. This lab is established with a cost of Rs4,40,203/-.

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**Hardware Kits**

S.No	Name	Quantity
1.	Digital Multimeters	20
2.	(0-50)V, Digital DC Voltmeters	10
3.	(0-20)mA Ammeter	8
4.	(0-100) $\mu$ A Ammeter	8
5.	Portable Multirange meters 3½ Digit PHY-1001A	8
6.	Dual Trace Oscilloscope	10
7.	Function Generators	10
8.	Regulated Power Supply	6
		2
		2
9.	Rectifier with/without filters trainers (FW &HW)	4

10.	RC phase shift Oscillator	1
		1
11.	Common Emitter Amplifier Trainer kit	2
		1
12.	Study of Transistor CC- Amplifier	1
		1
13.	Hartley Oscillator trainer	1
		1
14.	Decade Resistance Boxes	4
		3
15.	Two Stage RC Coupled Amplifier	2
16.	Astable Multivibrator Trainer Using Transistor	1
		1
17.	Monostable Multivibrator Trainer Using Transistor	1
		1
18.	Bistable Multivibrator Trainer Using Transistor	1
		1
19.	Schmitt Trigger Circuit Trainer	1
		1
20.	Op-Amp as Adder & Subtractor	1

		1
21.	Op-Amp as Integrator & Differentiator	1
		1
22.	Op-Amp as Inverting & Non inverting Amplifier	1
		1
23.	D/A Converter (R-2R)	1
24.	D/A Converter (Wiegthed Resister)	1
25.	D/A Converter Trainer	1
26.	Monostable Multivibrator Trainer Using IC 555 Timer	1
		1
27.	Astable Multivibrator Trainer Using IC 555 Timer	1
		1

### Faculty Awards and Recognitions

S. No.	Name of the Faculty	Designation	Details of the award and recognition
1	Y Rakesh Kumar	Assistant Professor	IEAE Young Achiever Award 2018 for best paper publication

2	Y Rakesh Kumar	Assistant Professor	Best Senior Faculty Award 2021 by Novel Research Academy, Puducherry, India.
3	Y Rakesh Kumar	Assistant Professor	IETE 2 <sup>nd</sup> Best Faculty Coordinator Award 2022 by IETE Hyderabad center.

### Details of Faculty Professional Body Memberships

S.No	Faculty Name	Membership No.						
		IEEE	ISTE	IETE	ISOI	IEI	Internet Society	OTHERS



1	V.Uma		LM33680	F-177647				
2	P.SriPadma		LM123651					
3	Y.Rakesh Kumar			F502138				INSC2018035 1