# Department of Electronics and Communication Engineering

# ICT ENABLED TOOLS FOR EFFECTIVE TEACHING - LEARNING PROCESS

# **CONTENTS**

S.NO			CONTENT	PAGE NUMBER
1	Introd	luction	03	
2	Facil	ities Av	vailable	05
3	Geo 7	Tagged	Photographs	08
	3.1	ICT E	nabled Classrooms	08
	3.2	ICT E	nabled Laboratories	14
	3.3	ICT E	nabled Auditorium	19
	3.4	Other	ICT facilities	23
		3.4.1	Microsoft Teams	24
		3.4.2	Canvas	28
		3.4.3	Zoom	29
		3.4.4	Cisco WebEx	30
		3.4.5	Google Meet	31
4	NPTE	EL certi	34	

#### 1. INTRODUCTION

It is only through Education and the integration of ICT in education that one can teach students to be participants in the growth process in this era of rapid change. ICT make education system more productive, interesting, give more powerful instruction and also able to extent the educational opportunities to masses and creating information —rich learning environment. To ensure that students play an active role in the learning process, Faculty make use of Information and communication technologies (ICT)in teaching-learning process.

- All our classrooms and laboratories are equipped with LCD Projectors.
- The teachers are encouraged to use modern teaching pedagogy, in addition to conventional classroom teaching practices. Faculty applies teaching methods such as group discussions, seminars, and student presentation for better understanding of concepts/ technologies using ICT.
- The Teaching-Learning Process is supported with Regular Practical Sessions, access to Digital Library, Online Courses (MOOCS, NPTEL etc.), online journals, Use of LCD projectors for seminars and workshops, productive use of educational videos, Communication skills training facility make the students to acquire proficiency in listening, speaking, reading and writing.
- The college has a central library well equipped with books & e-books, technical magazines, journals & e-journals and access to NPTEL lecture videos in the library, which serves as a knowledge resource. The students and faculty are motivated to register for online NPTEL Certificate courses and additional online courses like CODE NINJA, EDUREKA etc.

# Various Teaching and Learning Pedagogies used

<b>Course Delivery Methods</b>	Justification
Whiteboard and marker (Lecture Method)	To convey basics, critical information, history, background, theories and equations.
	• To expose the students to contemporary issues.
	Quick way to reach large numbers of students for exchange of useful information
Blended Teaching	Usage of Teaching aid Techniques such as Video Lectures, Power point presentations.
	Implementation of Active learning strategies such as Collaborative and individual Learning activities.
Laboratory Demonstration	Theory verified by practical approach using various data acquisition systems in the analysis.
	<ul> <li>Students learn to work in teams and understand the importance of Multi-disciplinary courses in real world applications.</li> </ul>
Course Handout	Course handout consists of Video lectures, Lecture Notes, Assignment questions, Tutorial questions and answers a model question papers.

# **2.Facilities Available**

S.No.	Facility	Total Number
1	ICT Enabled classrooms	13
2	Tutorial Rooms	03
3	Laboratories	12
4	Seminar Hall	01
5	Research and Development Lab	01
6	Auditorium	01

# **Details of ICT Enabled Classrooms**

S.No	Block	Room Number/Class	Floor	Area (sq. m)
1	A	IB-201 / ECE –II A	Second	69
2	A	IB-202 / ECE –II B	Second	83
3	A	IB-203 / ECE –III B	Second	69
4	A	IB-206 / ECE –II C	Second	69
5	A	IB-211 / ECE –II D	Second	69
6	В	IB-213 / ECE –III A	Second	69
7	В	IB-215 / ECE –III C	Second	69
8	В	IB-217 / ECE –III D	Second	69
9	В	IB-313 / ECE –IV A	Third	69
10	В	IB-314 / ECE -IV B	Third	83
11	В	IB-315 / ECE –IV C	Third	69
12	В	IB-321 / ECE –IV D	Third	69
13	В	IB-317 / M.Tech ECE	Third	69

**Table: Details of Class Rooms** 

S.No	Block	Room Number	Floor	Area (sq. m)
1	A	IB-212	Second	34
2	A	IB-205	Second	34
3	A	IB-301	Third	69

**Table: Details of Tutorial Rooms** 

S.No	Block	Room Number	Floor	Area (sq. m)	Description
1	В	IB-114	First	83	Embedded Systems/Advanced Embedded Systems Lab
2	В	IB-208	Second	72.49	Microwave Engineering Lab

## **SIET**

3	В	IB-209	Second	72.49	Electronic Devices and Circuits/Electronics Circuits Analysis Lab
4	В	IB-210	Second	72.49	Pulse Digital Circuits/IC Analysis Lab/Digital Systems Design Lab
5	В	IB-214	Second	83	Computer Organization/Digital IC Applied Lab
6	В	IB-218	Second	69	Analog Communication/Digital Communications lab
7	В	IB-219	Second	69	Analog Electronics /Electronics Circuits Analysis /Analog Digital Electronics Lab
8	В	IB-220	Second	69	Linear Applications/IC Application Lab
9	В	319	Third	69	Basic Simulation / Digital Signal Processing Lab
10	В	318	Third	69	Simulation Lab –I (ECA/ADC)
11	В	320	Third	69	Micro Processors & Micro Controllers / VLSI &ECAD/ Modelling and Simulation Lab
12	AB	ABB-002	Ground	76.5	Electrical Lab-I

**Table: Details of Laboratories** 

S.No	Block	Room Number	Floor	Area (sq. m)
1	AB	AB-205	Second	210

**Table: Details of Seminar Halls** 

S.No	Block	Room Number	Floor	Area (sq. m)
1	В	IB-221	Second	72.49

Table: Details of Research & Development Labs

#### 2. GEOTAGGED CLASSROOMS PHOTOFRAPHS

#### 3.1 ICT Enabled Classrooms

## **Department of Electronics & Communication Engineering**

#### II-ECE A CLASSROOM



#### II-ECE B CLASSROOM



#### III-ECE B CLASSROOM



II-ECE C CLASSROOM



#### II-ECE D CLASSROOM



III-ECE A CLASSROOM



#### III-ECE C CLASSROOM





#### III-ECE D CLASSROOM



#### IV-ECE A CLASSROOM



IV ECE B CLASSROOM



#### IV-ECE C CLASSROOM



IV-ECE D CLASSROOM



# **3.2 ICT Enabled Laboratory**

#### ECE-LAB-IB 114

#### EMBEDDED SYSTEM/ADVANCED EMBEDDED SYSTEM LAB



#### ECE-LAB-IB 208

#### MICROWAVE ENGINEERING LAB



#### ECE-LAB-IB 209

#### ELECTRONIC DEVICE CIRCUITS LAB



ECE-LAB-IB 210

#### PULSE & DIGITAL CIRCUITS LAB



# ECE-LAB-IB 218 ANALOG COMMUNICATION/DIGITAL COMMUNICATION LAB



ECE-LAB-IB 219

ANALOG DIGITAL ELECTRONICS LAB



# ECE-LAB-IB 220 LINEAR APPLICATIONS/IC APPLICATIONS LAB

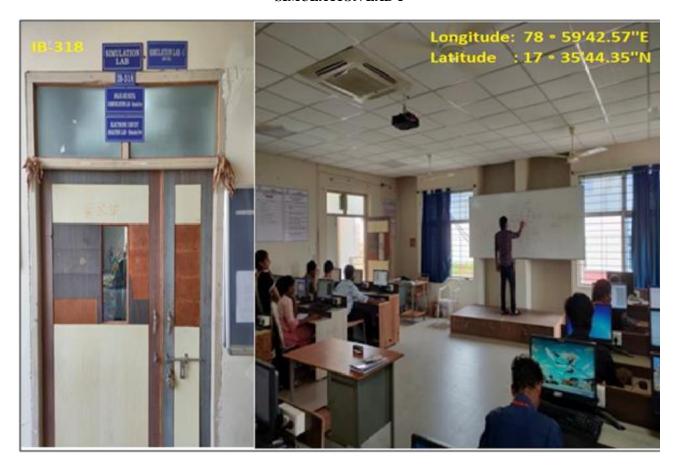


ECE-LAB-IB 319
BASIC SIMULATION/DIGITAL SIGNAL PROCESSING LAB



#### ECE-LAB-IB 318

#### SIMULATION LAB-I



ECE-LAB-IB 320
MICROPROCESSOR &MICROCONTROLLERS LAB



# 3.3 ICT Enabled Auditorium



# **Teachers using ICT for Effective Teaching**



Room No: IB213

 $\operatorname{Mr.Y}$  Satish Kumar , Associate Professor -ECE- using ICT facility for Antennas and Wave Propagation





ICT facility being used by Mr.N Ramesh , Associate Professor – ECE for Course : Basics of Electrical Engineering.



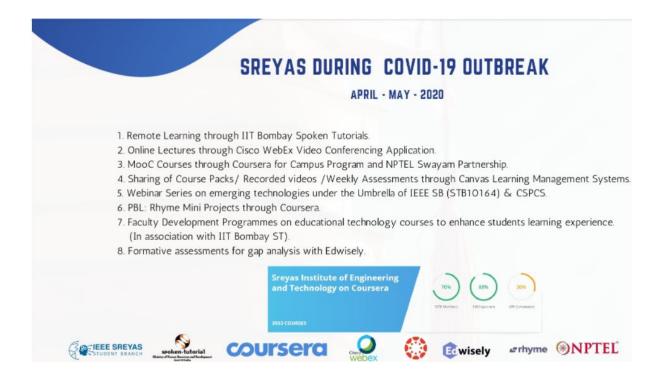
ICT facility being used by Mr.K Narasimha , Assistant Professor –ECE for Computer Networks



 $Mrs.\ A. Praveena$  , Assistant Professor-ECE , using ICT facility in Laboratory : Basic Simulation Laboratory



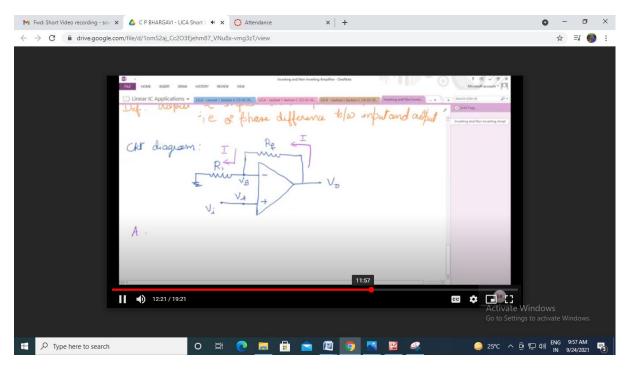
#### ACTIVITIES CONDUCTED DURING COVID PANDAMEIC

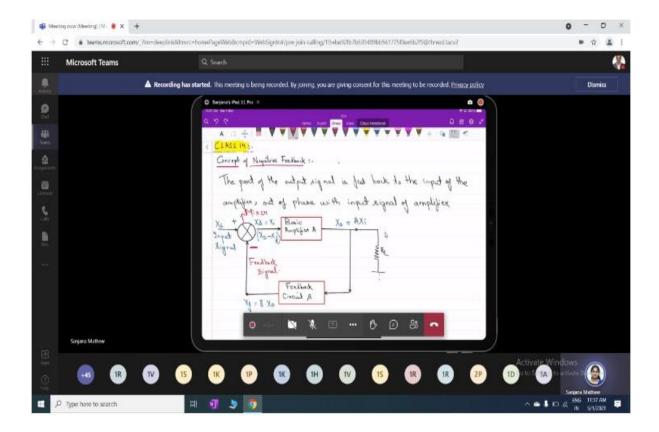


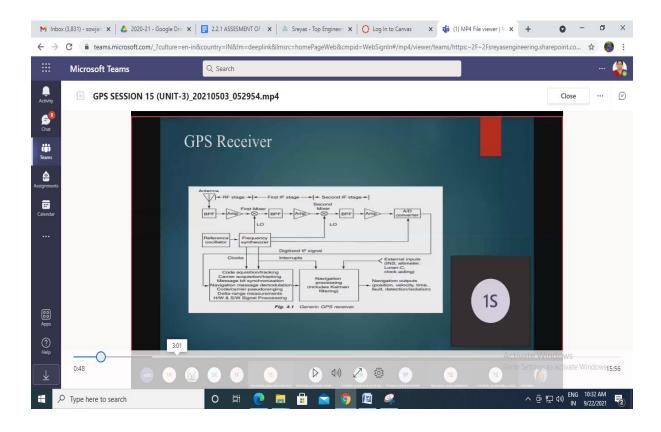
#### 3.4 OTHER ICT FACILITIES

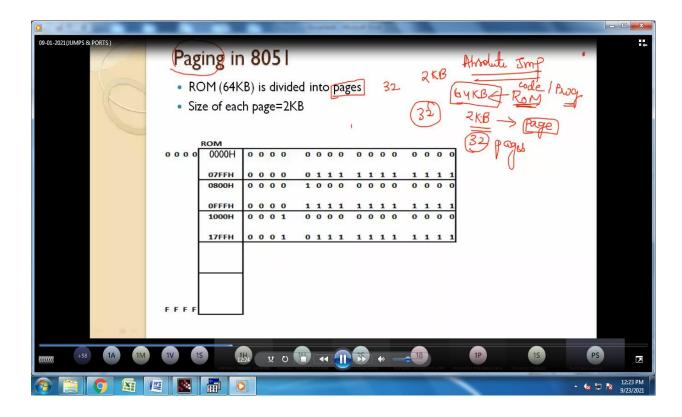
#### 3.4.1 Virtual class using Microsoft teams

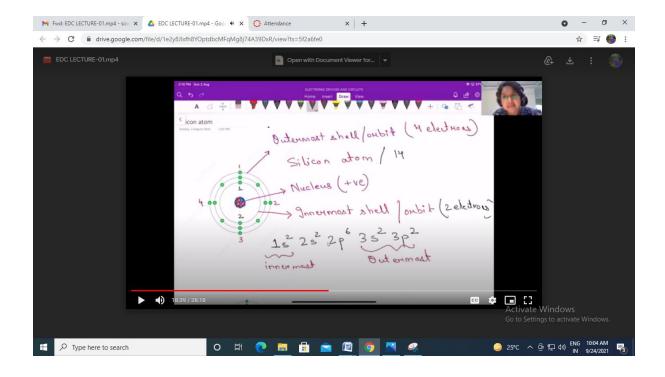
https://drive.google.com/file/d/1Bw4ioA RpBe3FUxuMIAEsHhurLhgK lw/view?usp=s haring

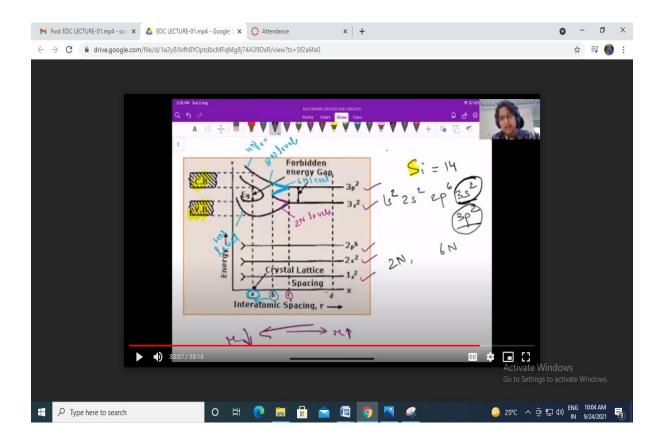


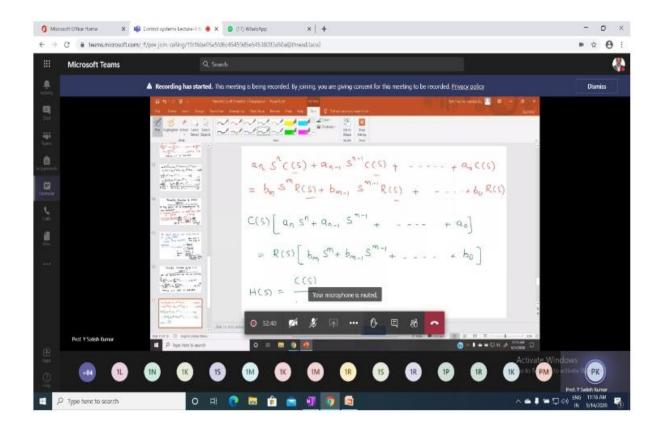






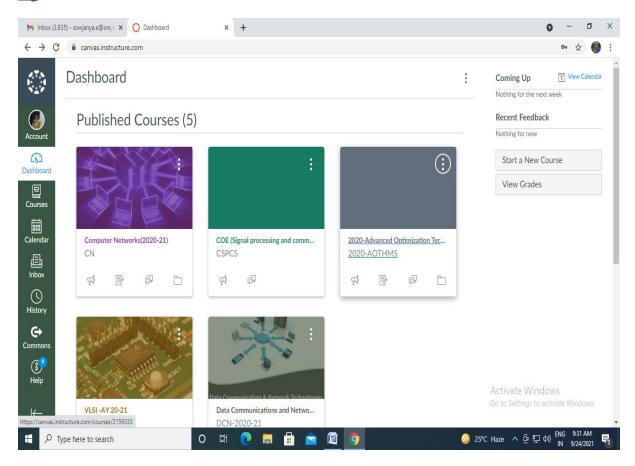


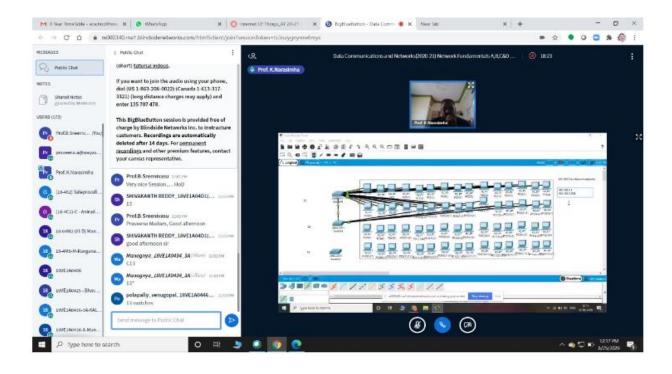




#### 3.4.2 Virtual class using Canvas

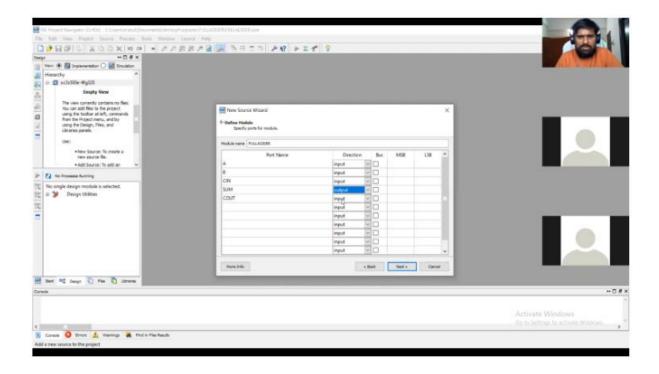
https://drive.google.com/file/d/1B2c3G3uONq6xbec\_CDeSOm9JB4eGXv5N/view?usp=sharing

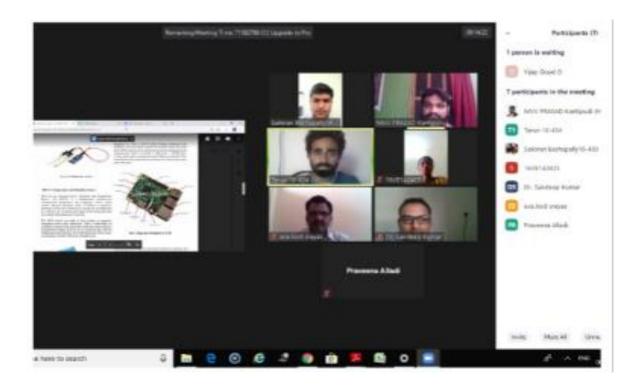




#### 3.4.3 Virtual class using ZOOM

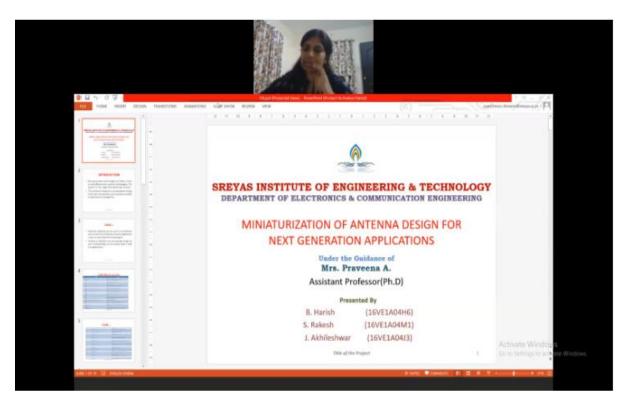
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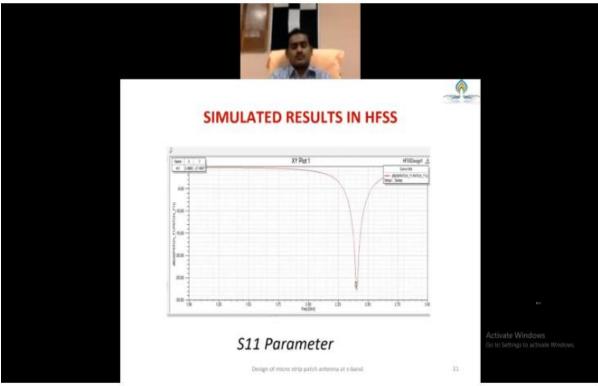




#### 3.4.4Cisco WeBex

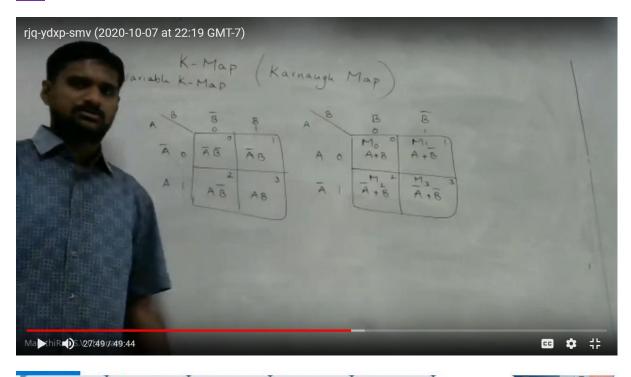
https://drive.google.com/drive/folders/1pJsjVEIGFbCUR4AxR88Enh\_n9-c\_dCf9?usp=sharing

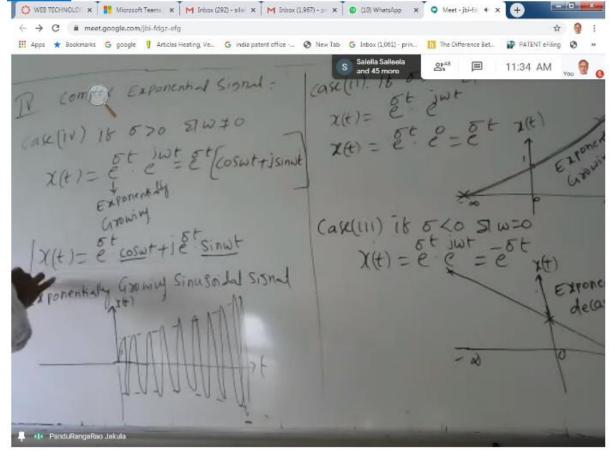




#### 3.4.5Google Meet

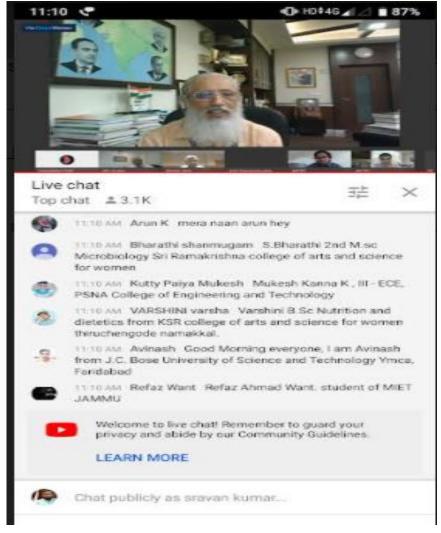
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#### Meeting of Faculty Innovation cell in Virtual room





# 4. NPTEL

YEAR	SEM	Total No. of student s certifie d	No. of Gold Certificati ons	No. of Silver Certifications	No. of Elite Certifications	No. of passed Certifications	Toppe r	COVID Impact Pass
2020-21	ODD	3		1		2		
2020-21	EVEN	1		1				
2019-20	ODD	11		3	6	1		
2019-20	EVEN	30	2		2			26
2018-19	ODD	13		1	8	4	1	
2018-19	EVEN	12	1	1	6	4	1	

**TOTAL CERTIFICATION TILL DATE-70** 

## Sep-Dec'2020

S.No	Course Name	Faculty Name	Department	Certificate Type	Topper
	Digital Image			Successfully	
1	processing	A.SOWJANYA	ECE	completed	
	Digital Image			Successfully	
2	processing	K SONALI SWAROOP	ECE	completed	
	Introduction to				
	Industry 4.0 &				
	Industrial Internet of	KANTIPUDI MVV			
3	things	PRASAD	ECE	Elite+Silver	Elite+Silver

# **List of Faculty Members Certified**

## Jan- Mar'2021

S.No	Course Name	Faculty Name	Department	Certificate Type	Topper
	Discrete time				
1	processing	KOTHA MANOHAR	ECE	Elite+Silver	Elite+Silver

# **July- Nov'2019**

S.No	Course Name	Faculty Name	Department	Certificate Type	Topper
		CHINNAM SUDHA			
1	Digital Circuits - Online	VENKATA MARUTHI RAO	ECE	Elite+Silver	
1	Digital Circuits Offine	YEDULAPALLY	LCL	Enterpriver	
2	Digital Circuits - Online	SATISHKUMAR	ECE	Elite	
3	Digital Circuits - Online	SEGONDA SWAPNA	ECE	Elite	
4	Hardware modeling using verilog - Online	MOHAMMED RAFI SHAIK	ECE	Elite	
5	Introduction to Internet of Things - Online	KANTIPUDI MVV PRASAD	ECE	Elite+Silver	Topper of 5% in this course
6	Designing Learner-centric e- learning in STEM disciplines	KANTIPUDI MVV PRASAD	ECE	Elite	
7	Introduction To Learning Analytics	KANTIPUDI MVV PRASAD	ECE	Elite	
8	Microelectronics Devices To Circuits - Online	VUPPALA SWATHI	ECE	Elite	
9	Technical English for engineers	PRAVEENA ALLADI	ECE	Elite+Silver	
10	Introduction to Operating Systems	PRAVEENA ALLADI	ECE	Successfully completed	
11	Introduction to Internet of Things - Online	A.SOWJANYA	ECE	Elite	

# **July- Sep'2019**

S.No	Course Name	Faculty Name	Department	Certificate Type	Topper
	Qualitative Research				
1	methods and research writing	PRAVEENA ALLADI	ECE	Elite	
1	writing	KANTIPUDI MVV	ECE	Ente	
2	Medical Image Analysis	PRASAD	ECE	Elite	
	Principles of				
	Communication				
3	Engineering-I	KOTHA MANOHAR	ECE	Elite+Gold	Elite+Gold
4	Principles of Signals and systems	KOTHA MANOHAR	ECE	Elite+Gold	Elite+Gold
4	Discrete Time Signal	KOTTIA MANOTIAK	ECE		Ente+Goid
5	Processing	KOTHA MANOHAR	ECE	Modified Pass	
3	Frocessing	KOTTA WANOTAK	LCL	Modified	
	Fundamentals of MIMO			Pass	
6	Wireless Communication	PRAVEENA A	ECE	1 433	
-				Modified	
	Effective Engineering			Pass	
7	Teaching In Practice	PRAVEENA A	ECE		
				Modified	
_	Discrete Time Signal	YEDULAPALLY	505	Pass	
8	Processing	SATISHKUMAR	ECE	M 1'C' 1	
	Microwave Integrated	YEDULAPALLY		Modified	
9	Circuits	SATISHKUMAR	ECE	Pass	
	Introduction to Industry	3/113/11(01/1/11)	LCL	Modified	
	4.0 and Industrial	KANTIPUDI MVV		Pass	
10	Internet of Things	PRASAD	ECE	1 435	
10	meerner or rinings	110.07.0		Modified	
	An Introduction to	KANTIPUDI MVV		Pass	
11	Artificial Intelligence	PRASAD	ECE		
				Modified	
	Microprocessors And	RAMACHANDRA		Pass	
12	Microcontrollers	KUMAR	ECE		
		MOHAMMED RAFI		Modified	
12	Introduction to Research	SHAIK	ECE	Pass	
13	microduction to Research	SHAIK	ECE	Modified	
	Principles of Signals and	YEDULAPALLY		Pass	
14	Systems	SATISHKUMAR	ECE	1 433	
-	,			Modified	
		YEDULAPALLY		Pass	
15	Electromagnetism	SATISHKUMAR	ECE		
				Modified	
	An Introduction to			Pass	
16	Artificial Intelligence	PRAVEENA A	ECE	N. 1.C. 1	
				Modified	
			ECE	Pass	

				Modified
	Microprocessors And			Pass
18	Microcontrollers	SEGONDA SWAPNA	ECE	
		CHINNAM SUDHA		Modified
	Introduction to internet	VENKATA MARUTHI		Pass
19	of things	RAO	ECE	
		DUAD CAN (I A DUA)		Modified
20	District Floring Street	BHARGAVI ARUN	505	Pass
20	Digital Electronic Circuits	KULKARNI	ECE	Modified
	Microprocessors And	BHARGAVI ARUN		Pass
21	Microcontrollers	KULKARNI	ECE	Pass
21	Principles of	102101111	202	Modified
	Communication Systems			Pass
22	-1	K SONALI SWAROOP	ECE	
				Modified
	Microprocessors And			Pass
23	Microcontrollers	K SONALI SWAROOP	ECE	
				Modified
	Microprocessors And	DR.J.PANDU RANGA	505	Pass
24	Microcontrollers	RAO	ECE	Modified
	Principles of Signals and			Pass
25	Systems	SREENIVASU BHUKYA	ECE	Pass
23	Principles of	STEETH VIOL BITCHTY	202	Modified
	Communication Systems			Pass
26	-1	SREENIVASU BHUKYA	ECE	
				Modified
	Microprocessors And			Pass
27	Microcontrollers	VUPPALA SWATHI	ECE	
				Modified
	Fundamentals of	\(\( \) \( \		Pass
28	semiconductor devices	VUPPALA SWATHI	ECE	No lici I
	Introduction to internet			Modified
29	of things	C JOHN MOSES	ECE	Pass
23	or timigs	C JOI IIV IVIO JEJ	LCL	Modified
30	Data Mining	SHAIK FAIROOZ	ECE	Pass

# July-Oct'2018

S.No	Course Name	Faculty Name	Dept	Certificate Type	Topper
1	Discrete Time Signal Processing	K SONALI SWAROOP	ECE	Successfully completed	
2	Digital Circuits	PRAVEENA ALLADI	ECE	Successfully completed	
3	Digital Circuits	SOWJANYA ADAPA	ECE	Elite	
4	Digital Circuits	K SONALI SWAROOP	ECE	Elite	
5	Digital Circuits	VUPPALA SWATHI	ECE	Elite	
6	Digital Circuits	B SPANDANA	ECE	Elite	
7	Digital Circuits	G. RAMACHANDRA KUMAR	ECE	Elite	
8	Microwave Theory and Techniques	DR V A SANKAR PONNAPALLI	ECE	Successfully completed	
9	Computer Architecture	B SPANDANA	ECE	Elite	
10	Introduction to Wireless and Cellular Communications	PRAVEENA ALLADI	ECE	Elite	
11	Introduction to Wireless and Cellular Communications	SOWJANYA ADAPA	ECE	Elite	
12	Digital Image Processing	VUPPALA SWATHI	ECE	Elite	
13	Introduction to Electromagnetic Theory	Y SATISH KUMAR	ECE	Successfully completed	

# Jan-Apr'2018

S.No	Course Name	Faculty Name	Department	Certificate Type	Topper
212.10	0.0000000000000000000000000000000000000	· ·			Торрег
1	Real Time Operating System	PRAVEENA A	ECE	Elite	
	Introduction to Internet of	DD ATTECNA	E CE		
2	Things	PRAVEENA A	ECE	Elite+gold	
	T . 1	G.			
2	Introduction to Internet of	RAMACHANDRA	ECE	E1.	
3	Things	KUMAR	ECE	Elite	
	Principles of Signals and	K SONALI	EGE	Successfully	
4	Systems	SWAROOP	ECE	completed	
_	Principles of Signals and	SOWJANYA	EGE	TIL.	
5	Systems	ADAPA	ECE	Elite	
	36	CHINNAM SUDHA			
	Microprocessors and	VENKATA	EGE	TIL.	
6	Microcontrollers	MARUTHI RAO	ECE	Elite	
7	Antennas	Y SATISHKUMAR	ECE	Elite	
					Topper of 2%
8	Introduction to Research	PRAVEENA A	ECE	Elite+Silver	in this course
	Embedded System Design			Successfully	
9	with ARM	PRAVEENA A	ECE	completed	
	Basics of Software Defined				
	Radios and Practical	KANTIPUDI MVV		Successfully	
10	Applications	PRASAD	ECE	completed	
	Effective Engineering	DR V A SANKAR		Successfully	
11	Teaching In Practice	PONNAPALLI	ECE	completed	
	Managing Intellectual	DR V A SANKAR			
12	Property in Universities	PONNAPALLI	ECE	Elite	

#### NPTELTOPPER CERTIFICATES











