



# PBR VISVODAYA INSTITUTE OF TECHNOLOGY AND SCIENCE

KAVALI, NELLORE (Dist.)



DR. DOOLA RAMACHANDRA REDDY  
(FOUNDER OF VISVODAYA)

## ELECTRONICA Newsletter

VOLUME 5

JAN - JUN 2021

### DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING Editorial Board Members

#### Editor-in-Chief

Dr. A. Maheswara Rao

Professor & Head of Dept., ECE

#### Faculty Editors

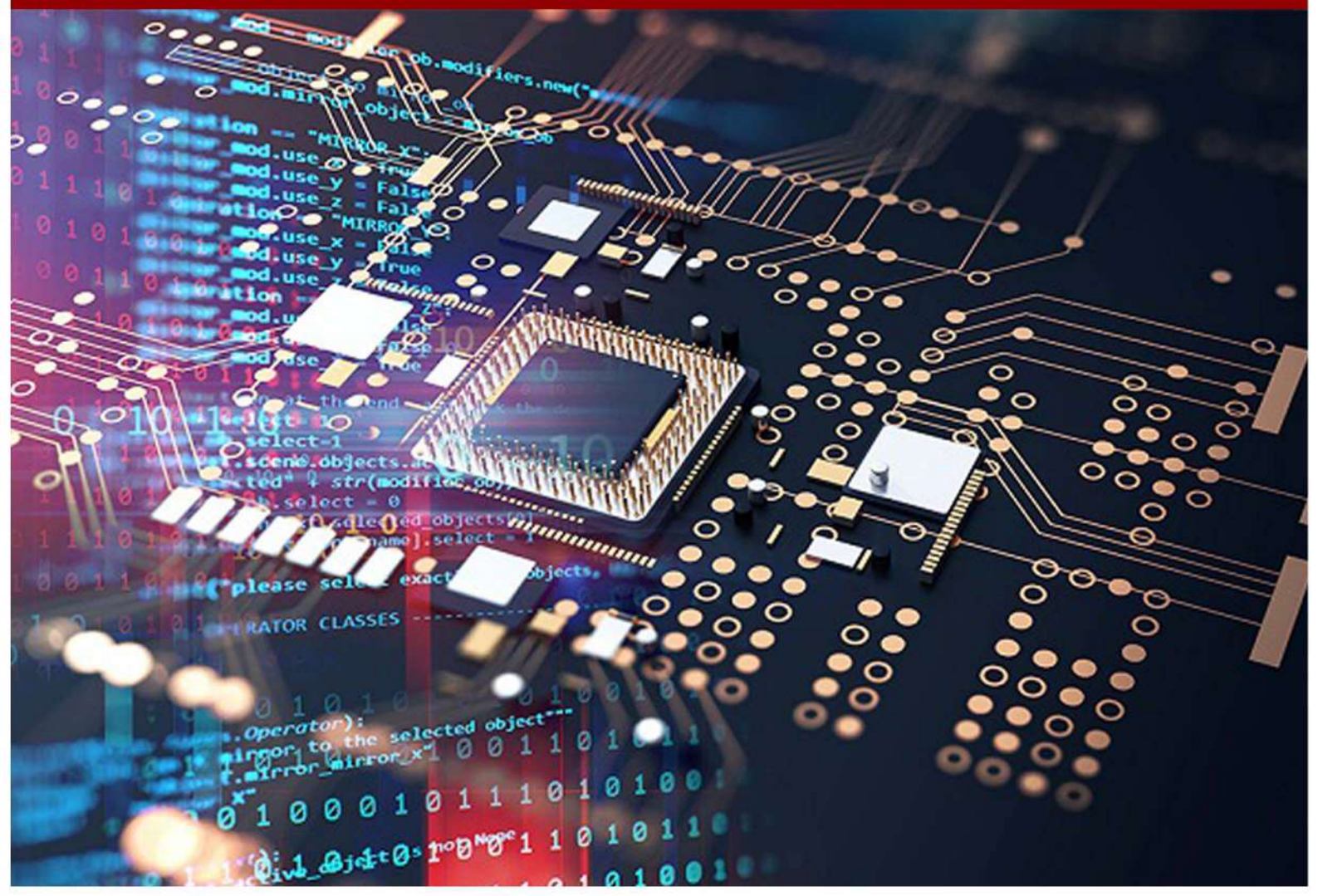
Dr. M R Arun, Professor

Mr. Sk. Rasool, Assistant Professor

#### Student Editors

P V Praveen Kumar (17731A0419)

K Madan Mohan (18731A0414)





# Department of Electronics And Communication Engineering **ELECTRONICA**

**NEWSLETTER**

**JAN - JUN 2021**

## **EDITORIAL BOARD**

### **EDITOR-IN-CHIEF**

**Dr. A. Maheswara Rao**  
Professor & Head of Dept., ECE

### **FACULTY EDITORS**

**Dr. M R Arun, Professor**  
**Mr. Sk. Rasool, Assistant Professor**

### **STUDENT EDITORS**

**P V Praveen Kumar (17731A0419)**  
**K Madan Mohan (18731A0414)**

## **INSTITUTE: VISION & MISSION**

### **Vision of the Institute:**

To be a premier center of learning in Engineering and Management education that evolves the youth into dynamic professionals with a social commitment

### **Mission of the Institute:**

**M1:** To provide quality teaching- learning practices in engineering and management education by imparting core instruction and state-of-the-art infrastructure.

**M2:** To engage the faculty and students in acquiring competency in emerging technologies and research activities through Industry Institute Interaction.

**M3:** To foster social commitment in learners by incorporating leadership skills and ethical values through value-based education

### **Program Educational Objectives (PEOs)**

**PEO-I :** Graduates will have the capabilities to analyze, design and develop innovative solutions for the problems in the field of Electronics and Communication Engineering using core competencies.

**PEO-II :** Graduates will have the ability to engage themselves in research and lifelong learning to achieve professional excellence.

**PEO-III :** Graduates will have successful career with leadership qualities, ethics and good communication skills in Electronics and Communication Engineering and related fields.

**ECE**  
**PBRVITS**

**DEPARTMENT OF ELECTRONICS &  
COMMUNICATION ENGINEERING**



# DEPARTMENT PROFILE

\* The Department of Electronics and Communication Engineering (ECE) was established in the years 1998–99 with an intake of 60 and currently running with an intake of 240. It is 23 years old now and one of the most well-established departments in our Institution. It is also offering one post graduate programme with the specialization of VLSI Design with an intake of 30 students.

\* The Department is known for its esteemed faculty members who are renowned for their path-breaking contributions in the field of electronics and communications. It is well equipped with laboratories, audio-visual facilities and software tools such as Multi Sim, Model Sim, Lab View, HFSS, MATLAB, and Xilinx.

\* We offer our students an excellent educational experience that combines intellectual rigor and cross-disciplinary breadth. The course contents are periodically updated to introduce new scientific and technological developments. Electronic design, communication technologies, hands-on programming, a research focus, and entrepreneurship skills are all part of our signature educational curriculum. The ECE domain is often regarded as a challenging culmination of hardware and software. Our curriculum focuses primarily on the knowledge and skills that emerging engineers need.

## DEPARTMENT: VISION & MISSION

### **Vision:**

To produce technically competent and research oriented Electronics and Communication Engineers to meet the Industrial and Social requirements.

### **Mission:**

M1: To impart quality technical education in the field of Electronics and Communication Engineering through state-of-the art facilities and effective teaching learning process.

M2: To enrich the faculty and students with research and consultancy skills through Industry-Interaction and Training in Emerging areas of Electronics and Communication Engineering.

M3: To develop lifelong learning, leadership qualities and ethical values in learners to meet the societal and industrial needs.





## PROGRAM OUTCOMES (POs)

1. Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
2. Problem analysis: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
3. Design/development of solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
4. Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
5. Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.
6. The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
7. Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
8. Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
9. Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
10. Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.



11. Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

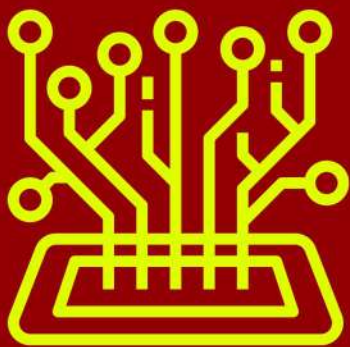
12. Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

## PROGRAM SPECIFIC OUTCOMES (PSOs)

\* PSO-1: Graduates will be able to design and analyze Image Processing and Communication Systems concepts using appropriate tools.

\* PSO-2: Graduates will be able to design and develop solutions for real world problems by applying the concepts of VLSI and Embedded Systems.

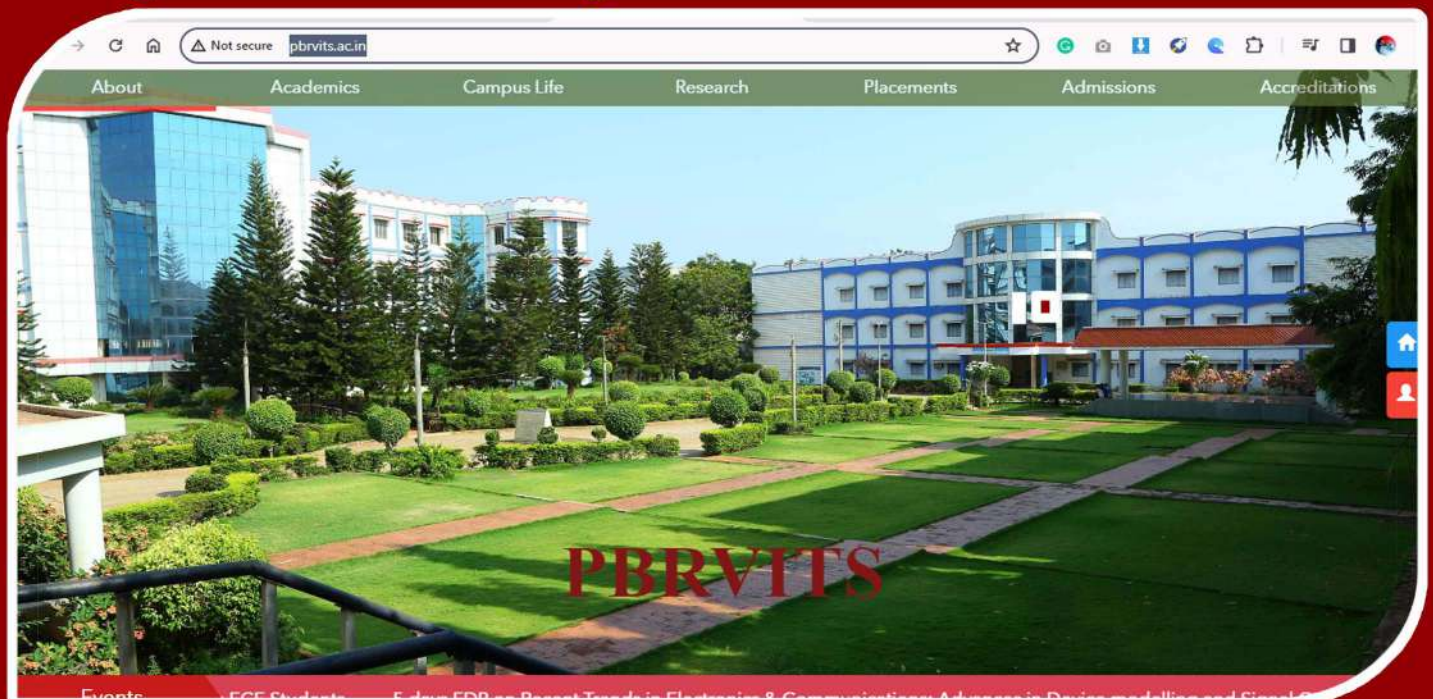
### P.B.R. VISVODAYA INSTITUTE OF TECHNOLOGY & SCIENCE



# ECE

DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

College Website: [www.pbrvits.ac.in](http://www.pbrvits.ac.in)





# FACULTY DETAILS

S.No.	Name	Designation	Qualification
1	Dr. DODLA PRATHYUSHA REDDI	Professor	ME/M. Tech and PhD
2	Dr. AVULA MAHESWARA RAO	Professor	ME/M. Tech and PhD
3	Dr. S.V. SUBBA RAO	Professor	ME/M. Tech and PhD
4	Dr. A S VISWANADHA SARMA	Professor	ME/M. Tech and PhD
5	Dr. N. SATHEESH KUMAR	Professor	ME/M. Tech and PhD
6	Dr. M R ARUN	Professor	ME/M. Tech and PhD
7	Dr. G SAI KUMAR	Professor	ME/M. Tech and PhD
8	Dr. P RAJA PRAKASH RAO	Professor	ME/M. Tech and PhD
9	Mr. VEMURU PHANIBHSHAN	Assistant Professor	M.E/M. Tech
10	Mr. ARAVA SUMAN KUMAR REDDY	Assistant Professor	M.E/M. Tech
11	Mr. RAMRAJSINGH PRATHAP SINGH	Assistant Professor	M.E/M. Tech
12	Ms. MODI PAVITHRA	Assistant Professor	M.E/M. Tech
13	Ms. MUSALI SUREKHA	Assistant Professor	M.E/M. Tech
14	Mr. V BHARATH KUMAR	Assistant Professor	M.E/M. Tech
15	Mr. M RAMA MOHAN REDDY	Assistant Professor	M.E/M. Tech
16	Mr. VANTERU NARAYNA REDDY	Assistant Professor	M.E/M. Tech
17	Mr. AKURATHI SRINIVASA RAO	Assistant Professor	M.E/M. Tech
18	Mr. CH AMARNATHA SARMA	Assistant Professor	M.E/M. Tech
19	Mrs. K KIRANMAYIJYOTHI	Assistant Professor	M.E/M. Tech
20	Mr. L.M.L. NARAYANA REDDY	Assistant Professor	M.E/M. Tech
21	Mr. LALLAM VASU	Assistant Professor	M.E/M. Tech
22	Mr. D YALAMANDA	Assistant Professor	M.E/M. Tech
23	Mr. K ASHOK KUMAR	Assistant Professor	M.E/M. Tech
24	Mr. SK RASOOL	Assistant Professor	M.E/M. Tech
25	Mr. M VENKATA RATHNAM	Assistant Professor	M.E/M. Tech
26	Mrs. M MADHULIKA	Assistant Professor	M.E/M. Tech
27	Mr. RAYALA RANJIT KUMAR	Assistant Professor	M.E/M. Tech
28	Mr. ALLA VENKA REDDY	Assistant Professor	M.E/M. Tech
29	Mr. M SREEHARI	Assistant Professor	M.E/M. Tech
30	Mrs. SADA MADHURI	Assistant Professor	M.E/M. Tech
31	Mr. N CHINA BABU	Assistant Professor	M.E/M. Tech
32	Mr. D UMAMAHESWARA REDDY	Assistant Professor	M.E/M. Tech
33	Ms. JAGANNADAM SUJITHA	Assistant Professor	M.E/M. Tech
34	Mr. GAJULAPALLE SIVANJANEYA REDDY	Assistant Professor	M.E/M. Tech
35	Mr. T GOWRI KISHORE	Assistant Professor	M.E/M. Tech
36	Mr. V PRASANNAJANEYA REDDY	Assistant Professor	M.E/M. Tech
37	Mr. R SATHEESH	Assistant Professor	M.E/M. Tech
38	Ms. KAMEPALLI UMA	Assistant Professor	M.E/M. Tech
39	Mrs. CH REDDY USHA	Assistant Professor	M.E/M. Tech
40	Mr. R VENKATESWARLU	Assistant Professor	M.E/M. Tech



# FACULTY PUBLICATIONS

S.No	Title of paper	Name of the author/s	Name of journal	ISSN number
1	A Novel Approach for Design of Receiver front end for Radars	Dr. S.V Subba Rao	(IJIRT)	2349-6002
2	Defect Detection Based on Segmentation of thermographic Images of Frequency Modulated Thermal Wave Imaging	V. Phani Bhushan	(IJEAT)	2249-8958
3	An advanced baby monitoring and alert system on Raspberry pi	Dr. N. Satheesh Kumar	(JOICS)	1548-7741
4	Trust Computation Using Bottom-Up Parser Approach In Manet	Dr. N. Satheesh Kumar	(ITII)	2204-0595
5	Enhanced Noise Tolerance Levels for Digital Receiver using Non-Linear Frequency Modulation	Dr. S.V Subba Rao	(TURCOMAT)	1309-4653
6	EERP: Intelligent Cluster based Energy Enhanced Routing Protocol Design over Wireless Sensor Network Environment	Dr. N. Satheesh Kumar	(IJMA)	2305-7246
7	FPGA implementation of RF power gating with low power technique of adaptative Radios	M. Pavitra	(IJAEMA)	0886-9367
8	A Remote HRV based on IOT (Heart Rate Variability) Monitoring system for hypertensive patients	A. Suman Kumar Reddy	(IJRDST)	2581-4575
9	A Remote HRV based on IOT (Heart Rate Variability) Monitoring system for hypertensive patients	M. Sreehari	(IJRDST)	2581-4575
10	In Heavy Industries, A Safety System for Mine Workers	V. Phani Bhushan	(IJRDST)	2581-4577
11	In Heavy Industries, A Safety System for Mine Workers	R.S. Pratap Singh	(IJRDST)	2581-4577
12	TTS-Based AI-Based Assistance for Visually Impaired People (Text to Speech)	V. Narayana Reddy	(IJRDST)	2581-4578
13	TTS-Based AI-Based Assistance for Visually Impaired People (Text to Speech)	Sk. Rasool	(IJRDST)	2581-4578
14	Design of Wideband Elliptical Ring Monopole Antenna Using Characteristic Mode Analysis	Dr. A. Maheswara Rao	(JEES)	2671- 7263
15	Improving the Speed of Non-Negative Matrix Factorization for Audio Source Separation on Multi-Core and Many-Core Architectures	V. Bharath Kumar	(AES)	2096-3246



# FACULTY PUBLICATIONS

16	Improving the Speed of Non-Negative Matrix Factorization for Audio Source Separation on Multi-Core and Many-Core Architectures	K. Kiranmayi Jyothi	(AES)	2096-3246
17	The Effect of a Weakly Varying Field and Spin-Lattice Interaction in a Zero Constant Field on the Magnetization Dynamics of a Material Containing Spin Triplet States	R. Prathap Singh	(AES)	2096-3246
18	The Effect of a Weakly Varying Field and Spin-Lattice Interaction in a Zero Constant Field on the Magnetization Dynamics of a Material Containing Spin Triplet States	N. China Babu	(AES)	2096-3246
19	Planning for a Group of Robots to Explore and Map an Area	A. Suman Kumar Reddy	(IJCNWC)	2250-3501
20	Planning for a Group of Robots to Explore and Map an Area	G. Sivanjaneya Reddy	(IJCNWC)	2250-3501
21	A Review: Pattern Formation and Multi-robot system adaptation	Rayala Ranjit Kumar	(IJASEM)	2454-9940
22	A Review: Pattern Formation and Multi-robot system adaptation	R. Sateesh	(IJASEM)	2454-9940
23	Solution of Nano magnetic Iron Oxide Used In Wheat Plants for Fertilization	Alla Venka Reddy	(ALT)	1000-372X
24	Solution of Nano magnetic Iron Oxide Used In Wheat Plants for Fertilization	Ch. Pavan Kumar	(ALT)	1000-372X
25	Multi-Robot Systems: A Review of Pattern Formation and Adaptation	A. Suman Kumar Reddy	(IJASEM)	2454-9940
26	Sliding Mode Control of a Doubly Fed Induction Generator in Real Time Wind Turbines	M. Surekha	(IJCNWC)	2250-3501
27	An Android-Based Mobile Game's UML Model	M. Venkata Rathnam	(IJERST)	2319-5991
28	Underwater Vehicle Localization with Range Measurements: An Observability Metric	L. Vasu	(IJERST)	2319-5991
29	Monitoring agricultural environments via wireless sensor networks	Dr. D. Prathyusha Reddi	(IJITCM)	2347-3657
30	Information System Hosted in the Cloud to Promote Rural Tourism	A. Venka Reddy	(IJMECE)	2321-2152



## FACULTY PUBLICATIONS

31	Engineering and Security Best Practices for Machine Learning-based Internet of Things Devices	K. Kiranmayi Jyothi	(IJBAR)	2278-0505
32	Factors That Matter Most When It Comes to Pre-Service Teachers Using IoT In The Classroom	K Uma	(IJMMSA)	0973-8355
33	Open Source Networking Technologies That Bridge the Gap between Hardware and Software	SK RASOOL	(IJMEC)	2321-2152
34	Using Convolutional Neural Networks for Automatic White Blood Cell Cancer Detection in Bone Marrow Micrographs	M. Madhulika	(IJITCE)	2347-3659
35	Multi-Robot Systems: A Review of Pattern Formation and Adaptation	Rayala Ranjit Kumar	(IJASEM)	2454-9940
36	Audio source separation: speeding up nonnegative matrix factorization on many-core and multicore architectures	J. Sujitha	(IJCNWC)	2250-3501
37	Examining how cybercriminals target certain parts of Internet of Things infrastructures	N. China Babu	(IJERT)	2319-5991

## ACADEMIC TOPPERS

Heartiest Congratulations to the Toppers the Management, Principal, Faculty & Students of ECE Dept., are happy to congratulate the students for proving their excellence in the University Examinations for the A. Y. 2020-2021 Sem-II conducted by JNTUA, Ananthapur.

### (I B. TECH, II-SEM, 2019 BATCH)

#### I B. Tech, II-Sem

S. No	Roll Number	Name	Percentage(%)	Rank
1.	19731A0402	BADE MANASA	93.55	I
2.	19731A0410	CHEKURU VINAYKUMAR	91.77	II
3.	19731A0454	K LEELA VENKATA VINODINI	91.77	II
4.	19731A0476	YAMARTHI TEJASWI	90.55	III



## (II B. TECH, II-SEM, 2018 BATCH)

### II B. Tech, II-Sem

S. No	Roll Number	Name	Percentage (%)	Rank
1	18731A0447	GRIDDALURU NEERAJ	89.44	I
2	19735A0401	CHAVA SAI MRUDHULA	89.22	II
3	18731A0440	AVULA MANJU PRIYA	88.55	III

## (III B. TECH, II-SEM, 2017 BATCH)

### III B. Tech, II-Sem

S. No	Roll Number	Name	Percentage (%)	Rank
1	17731A0413	KOLLI BHAVYA	87.77	I
2	17731A04A1	MANCHIKALAPADU NIKHIL KUMAR	87.44	II
3	17731A0442	GANGAVARAM SREELEKHA	84.55	III

## (IV B. TECH, II-SEM, 2016 BATCH)

### IV B. Tech, II-Sem

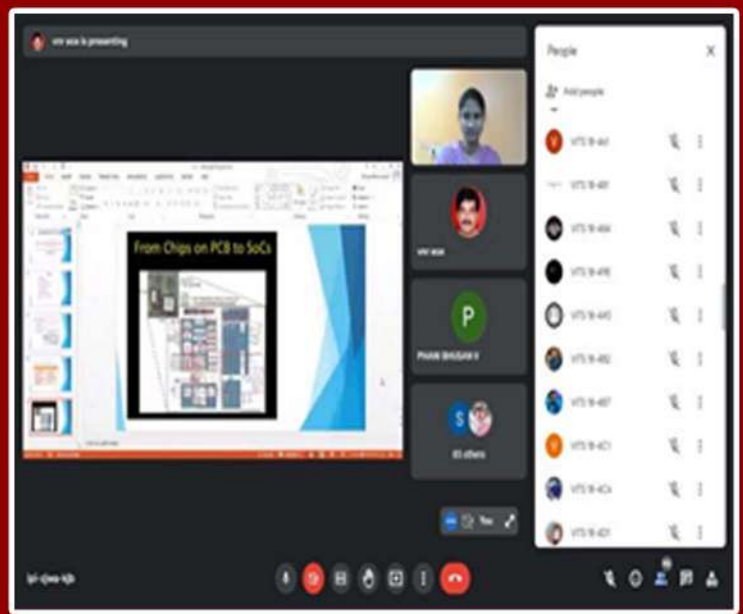
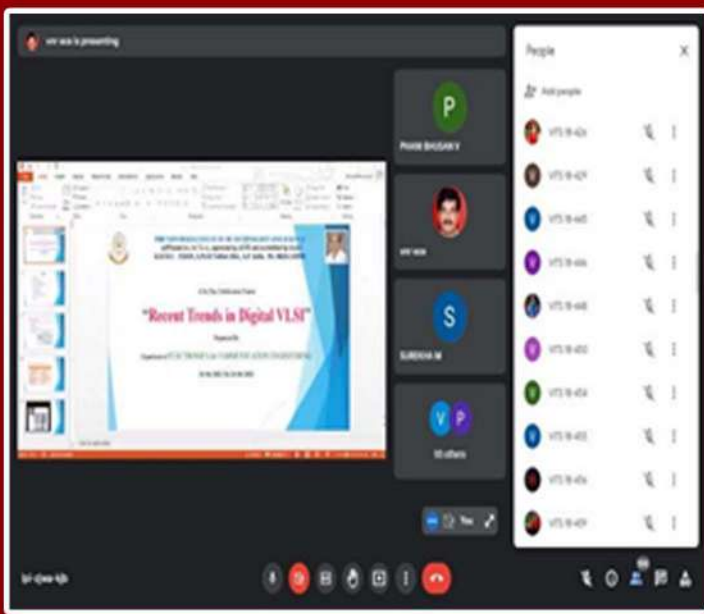
S. No	Roll Number	Name	Percentage (%)	Rank
1	16731A0479	CHIRA DEEPHI GAJJE	92.8	I
2	16731A0447	RAGHAVI PALLAPU	90.6	II
3	16731A0424	SRAVYA TIRUMALASETTY	90.4	III

## CERTIFICATE COURSES

### RECENT TRENDS IN DIGITAL VLSI

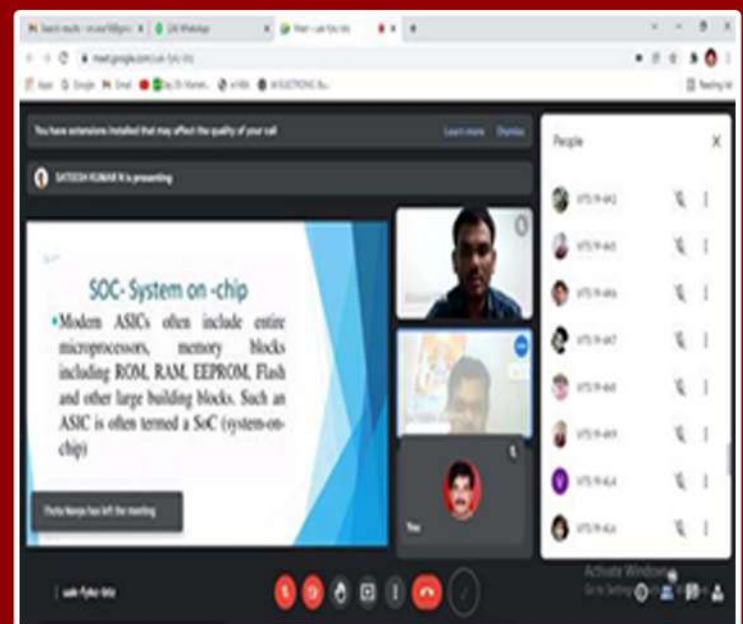
A Certificate Course was organized by the department of ECE on “RECENT TRENDS IN DIGITAL VLSI” on behalf of Technical Skill Trainers, APSSDC, Andhra Pradesh which is held from 19.04.2021 to 24.04.2021. 96 students from III B.Tech, ECE are participated in this course. Our beloved Head of the department Dr. A. Maheswara Rao has given an introduction to this course and Principal Dr. B Konda Reddy has given a small introduction about the importance of certification course and its need.





They also appreciated our initiative to make the value addition in our students. The students were participated actively in this course and gained knowledge in day to day communication methodologies and up gradation of new techniques in communication. The certificates were distributed to the students at the end of the course.

## RECENT TRENDS IN ELECTCRONICS & COMMUNICATION ENGINEERING



A Certificate Course was organized by the department of ECE on "RECENT TRENDS IN ELECTRONICS AND COMMUNICATION ENGINEERING" on behalf of Technical Skill Trainers, APSSDC, Andhra Pradesh which is held from 19-04-2021 to 24-04-2021. 98 students from II B.Tech, ECE are participated in this course. Our beloved Head of the department Dr. A. Maheswara Rao has given an introduction to this course and Principal Dr. B Konda Reddy has given a small introduction about the importance of certification course and its need.



They also appreciated our initiative to make the value addition in our students. The students were participated actively in this course and gained knowledge in day to day communication methodologies and up gradation of new techniques in communication. The certificates were distributed to the students at the end of the course.

## **PLACEMENT SUMMARY**

<b>S.NO</b>	<b>Name of the Company</b>	<b>Number of students selected</b>
1	ACCENTURE	9
2	IBM	1
3	CTS	16
4	CAPGEMINI	1
5	DXC TECHNOLOGIES	33
6	INFOSYS	6
7	TECH MAHINDRA	4
8	JASMIN INFOTECH	7
9	WIPRO	9
10	TCS	11
11	PRODAPT	13
12	IBS SOFTWARE	6
13	TUDIP TECHNOLOGIES	2
14	METRIX LAB	5
15	HEXAWARE	11
16	QUALITY KIOSK	4
17	WORKSBOT	28
<b>TOTAL</b>		<b>166</b>





**Udayagiri Road, Kavali**  
**SPSR Nellore, AP - 524201**

 **+91-8626242422**

 **+91-8626243930**

 **+91-8626240056**

 **contactus@visvodayata.ac.in**