



AUTONOMOUS

PBR VISVODAYA INSTITUTE OF TECHNOLOGY AND SCIENCE

KAVALI, NELLORE (Dist.)



**DR. DOOLA RAMACHANDRA REDDY
(FOUNDER OF VISVODAYA)**

ELECTRONICA Newsletter

VOLUME 7

JAN - JUN 2022

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

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Editor-in-Chief

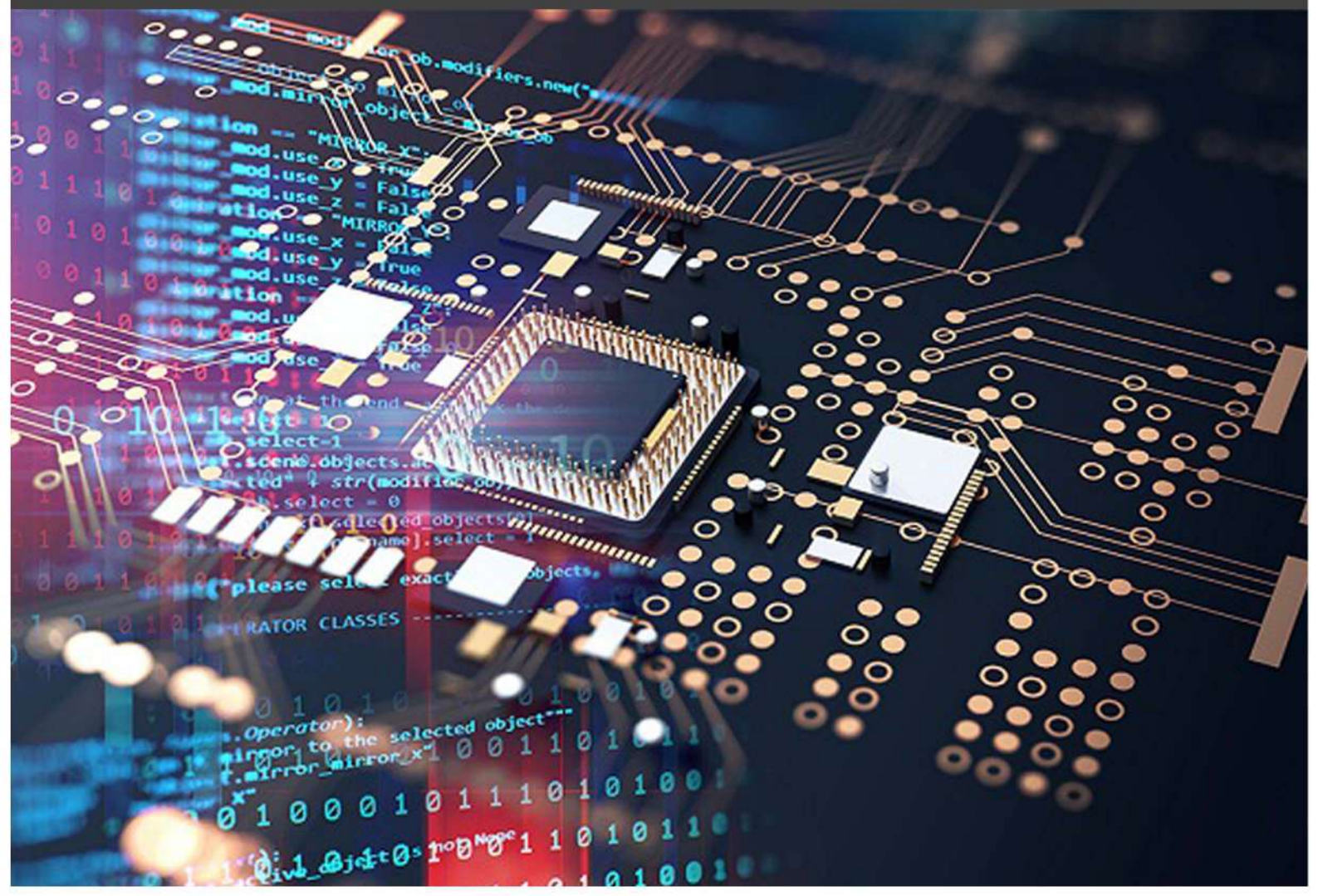
Dr. A. Maheswara Rao
Professor & Head of Dept., ECE

Faculty Editors

Dr P Raja Prakash Rao, Professor
Mrs. Jabeena Shaik, Assistant Professor

Student Editors

K. Bujji(18731A0450)
Ch. Vijaya Kumar(19731A0410)



Department of Electronics And Communication Engineering **ELECTRONICA**

NEWSLETTER

JAN - JUN 2022

EDITORIAL BOARD

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FACULTY EDITORS

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STUDENT EDITORS

K. Bujji(18731A0450)
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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 24 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.

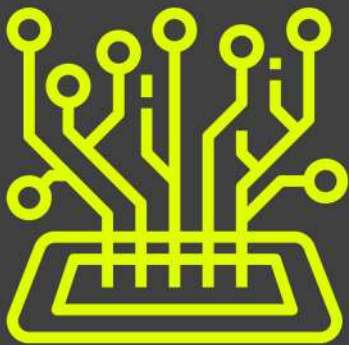
12. Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

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.

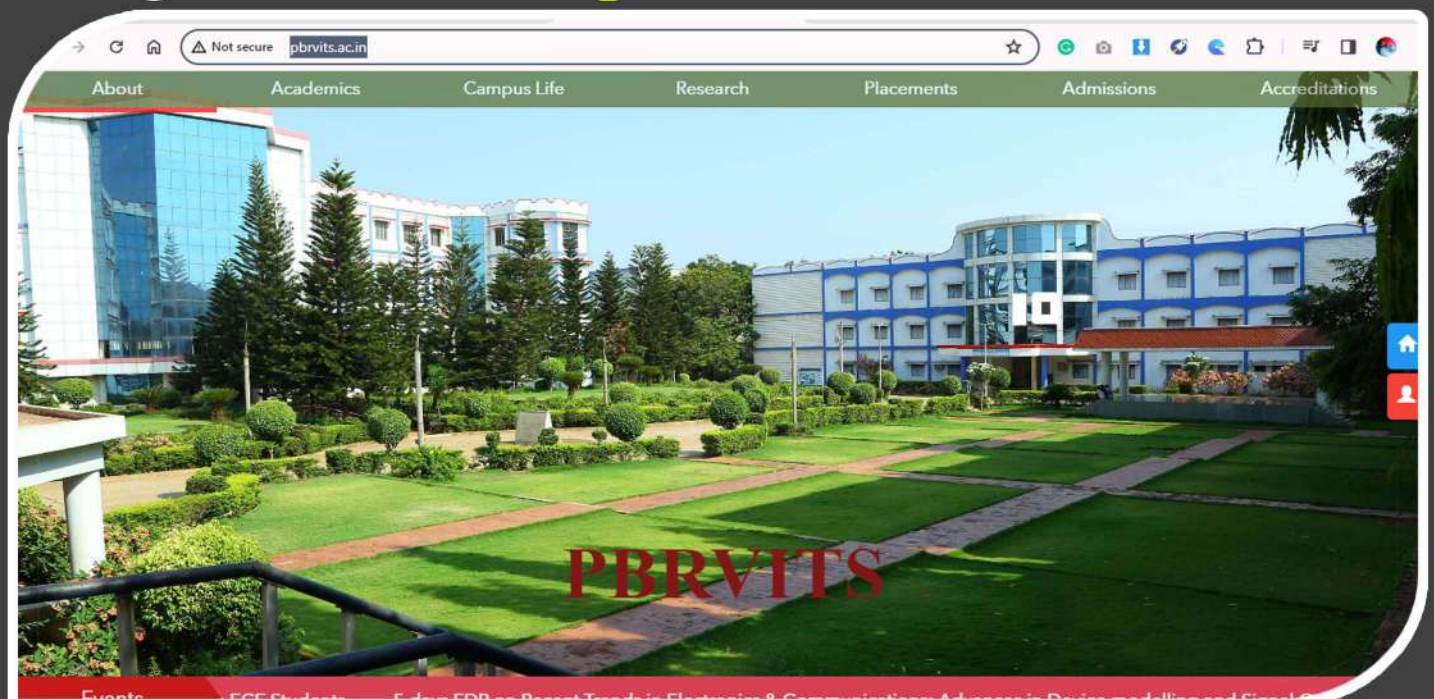
P.B.R. VISVODAYA INSTITUTE OF TECHNOLOGY & SCIENCE



ECE

DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

College Website: www.pbrvits.ac.in



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 P RAJA PRAKASH RAO	Professor	ME/M. Tech and PhD
8	Dr. V PAKASAM	Professor	ME/M. Tech and PhD
9	Dr. MD HAYATH RAJVEE	Professor	ME/M. Tech and PhD
10	Dr. S M LAKSHMI	Professor	ME/M. Tech and PhD
11	Mrs. RAVI SRAVANTHI	Associate Professor	M.E/M. Tech
12	Mr. DODLA LIKHITH REDDY	Associate Professor	M.E/M. Tech
13	Mr. VEMURU PHANIBHSHAN	Assistant Professor	M.E/M. Tech
14	Mr. ARAVA SUMAN KUMAR REDDY	Assistant Professor	M.E/M. Tech
15	Mr. RAMRAJSINGH PRATHAP SINGH	Assistant Professor	M.E/M. Tech
16	Ms. MODI PAVITHRA	Assistant Professor	M.E/M. Tech
17	Ms. MUSALI SUREKHA	Assistant Professor	M.E/M. Tech
18	Mr. V BHARATH KUMAR	Assistant Professor	M.E/M. Tech
19	Mr. M RAMA MOHAN REDDY	Assistant Professor	M.E/M. Tech
20	Mr. VANTERU NARAYNA REDDY	Assistant Professor	M.E/M. Tech
21	Mr. AKURATHI SRINIVASA RAO	Assistant Professor	M.E/M. Tech
22	Mrs. K KIRANMAYIJYOTHI	Assistant Professor	M.E/M. Tech
23	Mr. L.M.L. NARAYANA REDDY	Assistant Professor	M.E/M. Tech
24	Mr. LALLAM VASU	Assistant Professor	M.E/M. Tech
25	Mr. D YALAMANDA	Assistant Professor	M.E/M. Tech
26	Mr. K ASHOK KUMAR	Assistant Professor	M.E/M. Tech
27	Mr. SK RASOOL	Assistant Professor	M.E/M. Tech
28	Mr. M VENKATA RATHNAM	Assistant Professor	M.E/M. Tech
29	Mrs. M MADHULIKA	Assistant Professor	M.E/M. Tech
30	Mr. RAYALA RANJIT KUMAR	Assistant Professor	M.E/M. Tech
31	Mr. ALLA VENKA REDDY	Assistant Professor	M.E/M. Tech

32	Mr. M SREEHARI	Assistant Professor	M.E/M. Tech
33	Mr. N CHINA BABU	Assistant Professor	M.E/M. Tech
34	Mr. D UMAMAHESWARA REDDY	Assistant Professor	M.E/M. Tech
35	Ms. JAGANNADAM SUJITHA	Assistant Professor	M.E/M. Tech
36	Mr. GAJULAPALLE SIVANJANEYA REDDY	Assistant Professor	M.E/M. Tech
37	Mr. V PRASANNAJANEYA REDDY	Assistant Professor	M.E/M. Tech
38	Mr. T GOWRI KISHORE	Assistant Professor	M.E/M. Tech
39	Ms. KAMEPALLI UMA	Assistant Professor	M.E/M. Tech
40	Mrs. CH REDDY USHA	Assistant Professor	M.E/M. Tech
41	Mr. R VENKATESWARLU	Assistant Professor	M.E/M. Tech
42	Mr. R SATHEESH	Assistant Professor	M.E/M. Tech
43	Mrs. A NAGAMALLI	Assistant Professor	M.E/M. Tech
44	Mr. K PENCHALAI AH	Assistant Professor	M.E/M. Tech
45	Mrs. SHAIK NAZMA SULTHANA	Assistant Professor	M.E/M. Tech
46	Mrs. SK JABEENA	Assistant Professor	M.E/M. Tech
47	Mr. G MALYADRI	Assistant Professor	M.E/M. Tech
48	Mr. K RAVICHANDRA	Assistant Professor	M.E/M. Tech
49	Mr. CH PAVAN KUMAR	Assistant Professor	M.E/M. Tech
50	Mr. G MANGARAO	Assistant Professor	M.E/M. Tech
51	Mrs. C V KAVYA SUVARCHALA	Assistant Professor	M.E/M. Tech
52	Mr. P 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	Different Feeding Techniques of Elliptical Patch Antenna at X Band for Radar Applications	Dr V Prakasam	(IJCDS)	2210-142X
2	Analyzing the Effect of Uncertainty in Low Power SRAM Cells using Artificial Intelligence Technique	Dr N Satheesh Kumar	(JUS)	1752 8909
3	Analysis of a Compact 4-shaped Annular Ring Ultra Wideband Antenna Using Characteristic Modes	Dr.A.Maheswara Rao	IJET	2081-8491
4	Hexagon Shape SIW Bandpass Filter with CSRRs Using Artificial Neural Networks Optimization	Mr R Ranjith Kumar	PIER C	1937-8719

5	The Effects of Crypto-Hardware on Low-end Internet of Things Performance	Dr.Pasala Raja Prakash Rao	(IJCNCW)	2250-3501
6	The Effects of Crypto-Hardware on Low-end Internet of Things Performance	G.Manga Rao	(IJCNCW)	2250-3501
7	Hexagonal Nano magnets Capable of Reversing Magnetization	L.M.L.Narayana Reddy	Applied Laser Technology	1000-372X
8	Hexagonal Nano magnets Capable of Reversing Magnetization	D Umamaheswara Reddy	Applied Laser Technology	1000-372X
9	Automatic Detection of White Blood Cancer from Bone Marrow Microscopic Images Using Convolutional Neural Networks	Sk.Jabeena	Applied Laser Technology	1000-372X
10	Automatic Detection of White Blood Cancer from Bone Marrow Microscopic Images Using Convolutional Neural Networks	Sk.Nazma Sulthana	Applied Laser Technology	1000-372X
11	A State of the Art Review Of Network and Mobile Communications Technologies	Dr.Dodla Prathyusha Reddy	Applied Laser Technology	1000-372X
12	A State of the Art Review Of Network and Mobile Communications Technologies	J Sujitha	Applied Laser Technology	1000-372X
13	A State of the Art Review Of Network and Mobile Communications Technologies	K Uma	Applied Laser Technology	1000-372X

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 Examinations for the A.Y. 2021-2022, conducted by P.B.R. VISVODAYA INSTITUTE OF TECHNOLOGY & SCIENCE (AUTONOMOUS).

(I B. TECH, I-SEM, 2021 BATCH)

I B. Tech, I-Sem				
S. No	Roll Number	Name	Percentage(%)	Rank
1	21731A04C9	YANAMALA DIVYA	93.38	I
2	21731A0410	CHINTHAPATI ANJALI	92.5	II
3	21731A0420	JANA SRIHARSHINI BINDU	92.25	III

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. 2021-2022, conducted by JNTUA, Ananthapur.

(II B. TECH, I-SEM, 2020 BATCH)

II B. Tech, I-Sem				
S. No	Roll Number	Name	Percentage(%)	Rank
1	20731A0428	KOMMI PALLAVI	88.44	I
2	20731A0460	YADLAPALLI MANEESHA	88.	II
3	20731A0429	KASUKURTHI AMULYA	84.44	III
4	20731A0401	AMBULURI MADHUMITHA	84.44	III

(III B. TECH, I-SEM, 2019 BATCH)

III B. Tech, I-Sem

S. No	Roll Number	Name	Percentage(%)	Rank
1	19731A0468	PATHAPATI VAMSI PRIYA	87.57	I
2	19731A04N3	VEERALA HARI KRISHNA	87.15	II
3	19731A0476	YAMARTHI TEJASWI	86.31	III

(IV B. TECH, I-SEM, 2018 BATCH)

IV B. Tech, I-Sem

S. No	Roll Number	Name	Percentage(%)	Rank
1	18731A04L2	NELATURI SREEDEVI	85.12	I
2	18731A04A2	VUDUMULA YAMUNA	84.5	II
3	18731A0419	KUKATI SUMA	84.37	III

GUEST LECTURES

EMBEDDED VISION IN IOT

The Guest Lecture was organized by the department of ECE on “Embedded Vision in IOT” which is held on 09.04.2022. In this program 126 students and 03 faculty members were attended. The experts for this program are Mr. K. Maheswara Rao, Manager, VECTOR INDIA, Bengaluru are delivered Lecture on "Embedded Vision in IOT" and IOT features etc.



Embedded vision, as an integrated technology in both smaller devices and industrial machines, ensures that all industries and many kinds of applications will derive a benefit from integrated image processing. Some industrial examples are seeing robots, self-positioning lasers, or obstacle-avoiding drones.

DESIGN, DEVELOPMENT AND APPLICATION OF L-BAND WIND PROFILER RADARS

The Guest Lecture was organized by the department of ECE on “Design, Development and Application of L-Band wind Profiler RADARS” which is held on 21.04.2022. In this program 234 students and 03 faculty members were attended. The expert for this program is Prof. S. Narayana reddy, Principal, SVU College of Engg, Thirupathi are delivered Lecture on “Design, Development and Application of L-Band wind Profiler RADARS” and RADAR features etc.

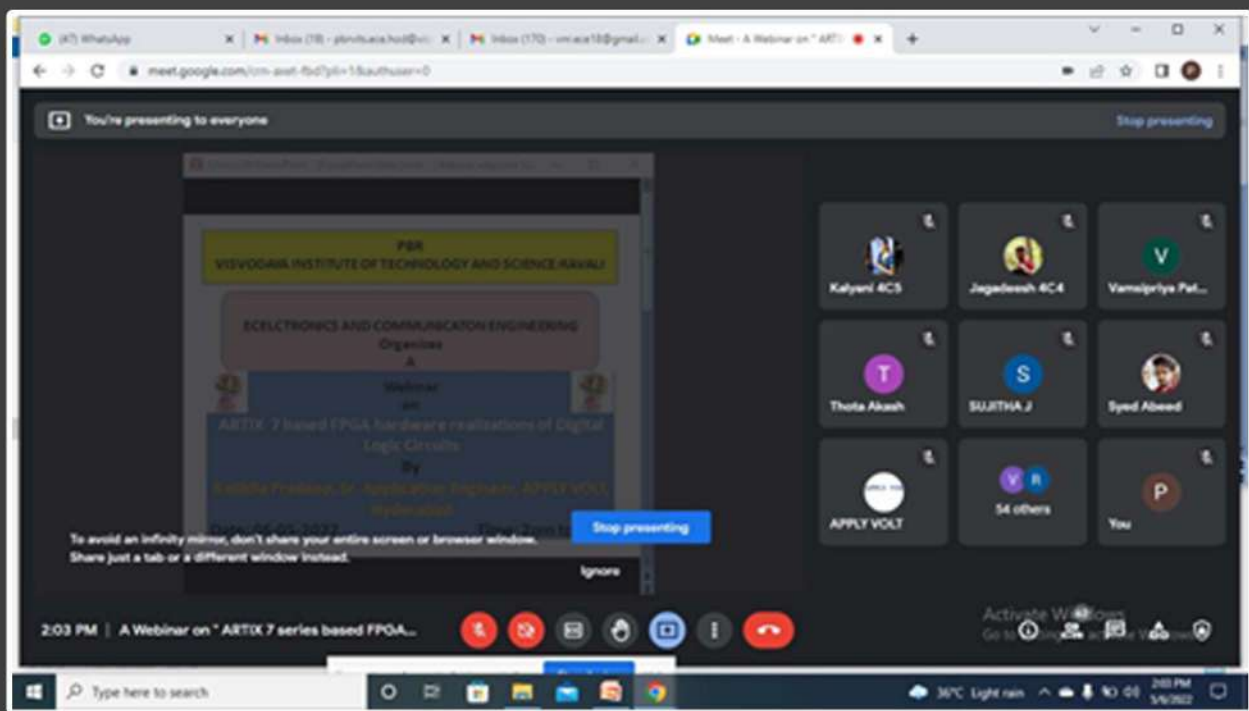


WEBINARS

ARTIX 7 SERIES BASED FPGA HARDWARE REALIZATIONS OF DIGITAL LOGIC CIRCUITS

The webinar was organized by the department of ECE on “ARTIX 7 series-based FPGA hardware realizations of Digital Logic Circuits” which is held on 06.05.2022. In this program 94 students and 04 faculty members were attended. The experts for this webinar Mr. K Pradeep delivered Lecture on FPGA Board ARTIX 7 and Implementation etc

The Artix-7 FPGAs are ideal for cost-sensitive applications that need high-end features.



Optimized for Xilinx FPGAs, the Micro Blaze CPU is a highly configurable 32-bit RISC processor offering fast deployment and presets for Microcontroller, Real-Time Processor, and Application Processor use cases. Artix-7 devices provide high performance-per-watt fabric, transceiver line rates, DSP processing, and AMS integration in a cost-optimized FPGA.

WORKSHOPS

DATA ANALYSIS USING PYTHON

The Workshop was organized by the department of ECE on “Data Analysis using Python” on behalf of Technical Skill Trainers, APSSDC, Vijayawada. This is held from 07.03.2022 to 12.03.2022. In this program 203 students and 03 faculty members were attended. The experts for this Miss P. Sindhuja, Miss K. Mangatayaru, Mr. N. Ravi Kumar, Technical Skill Trainers, APSSDC, Vijayawada., Data Analysis using Python.



TECHNICAL SYPOSIUM

NATIONAL LEVEL TECHNICAL SYPOSIUM-TECHHERTZ-2K22

A National Level Technical Symposium-TECHHERTZ-2K22 was organized by the department of ECE which is held from 25.03.2022 to 26.03.2022. In this program Students of various engineering colleges from different parts of the country are invited to participate in the event. The chief guest Dr. Jagadeeswar Reddy, Principal, VEC, Kavali delivered lecture on importance of National Level Technical Symposium-TECHHERTZ-2K22.

The purpose of this symposium is to bring together the students on to a common platform, summarizing the recent advances in research and conglomerating their findings to overcome the obstacles in real life environment. The symposium will focus on topics such as Image Processing, VLSI and Embedded Systems, Networking, Virtual Instrumentation, MEMS, Nano-Technology, Smart Antenna, Satellite and Microwave Systems and presenting them under categories viz., PPTs, Posters & Spot events.



NATIONAL CONFERENCES

ADVANCES IN COMMUNICATION & COMPUTING TECHNOLOGIES

Department of Electronics & Communication Engineering and Department of Computer Science & Engineering, PBR VISVODAYA INSTITUTE OF TECHNOLOGY & SCIENCE, Kavali, has organized a National conference on “ADVANCES IN COMMUNICATION & COMPUTING TECHNOLOGIES” on 18th June, 2022. The prime objective of this conference is to bring together the academicians, industrialists & researchers on to a common platform, summarizing recent advances in research and conglomerating their findings to overcome the obstacles in the real life environment.

Papers of different discipline such as Embedded System, Cyber Forensics, Wireless Communication, Cloud computing, soft computing, have been presented which gave the students to learn and understand new things which they didn't come through in their subject fields. Academicians, Engineers from industries, R&D Personnel, Research Scholars and Post Graduate students from different parts of the country are invited to participate in the conference.

For this conference, the Chief Guest Dr. G. Kiran Kumar was given a detailed information on the topic various modes of communication which gave so much of inspirations to the academicians and researchers. The conference received good response from Researchers, academicians and students (UG & PG). We have received 25 papers from different colleges out of which 15 were selected for presentation. The conference Proceedings were Released and issued to the participants.



Kavali, Andhra Pradesh, India
WX7M+278, Vaddi Palem, Kavali, Andhra Pradesh 524201, India
Lat 14.912752°



Kavali, Andhra Pradesh, India
WX2V+GB5, Pulla Reddy Nagar, Kavali, Andhra Pradesh 524201, India
Lat 14.901148°
Long 79.993289°
18/06/22 10:18 AM

PLACEMENT SUMMARY

S.NO	Name of the Company	Number of students selected
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
TOTAL		166



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