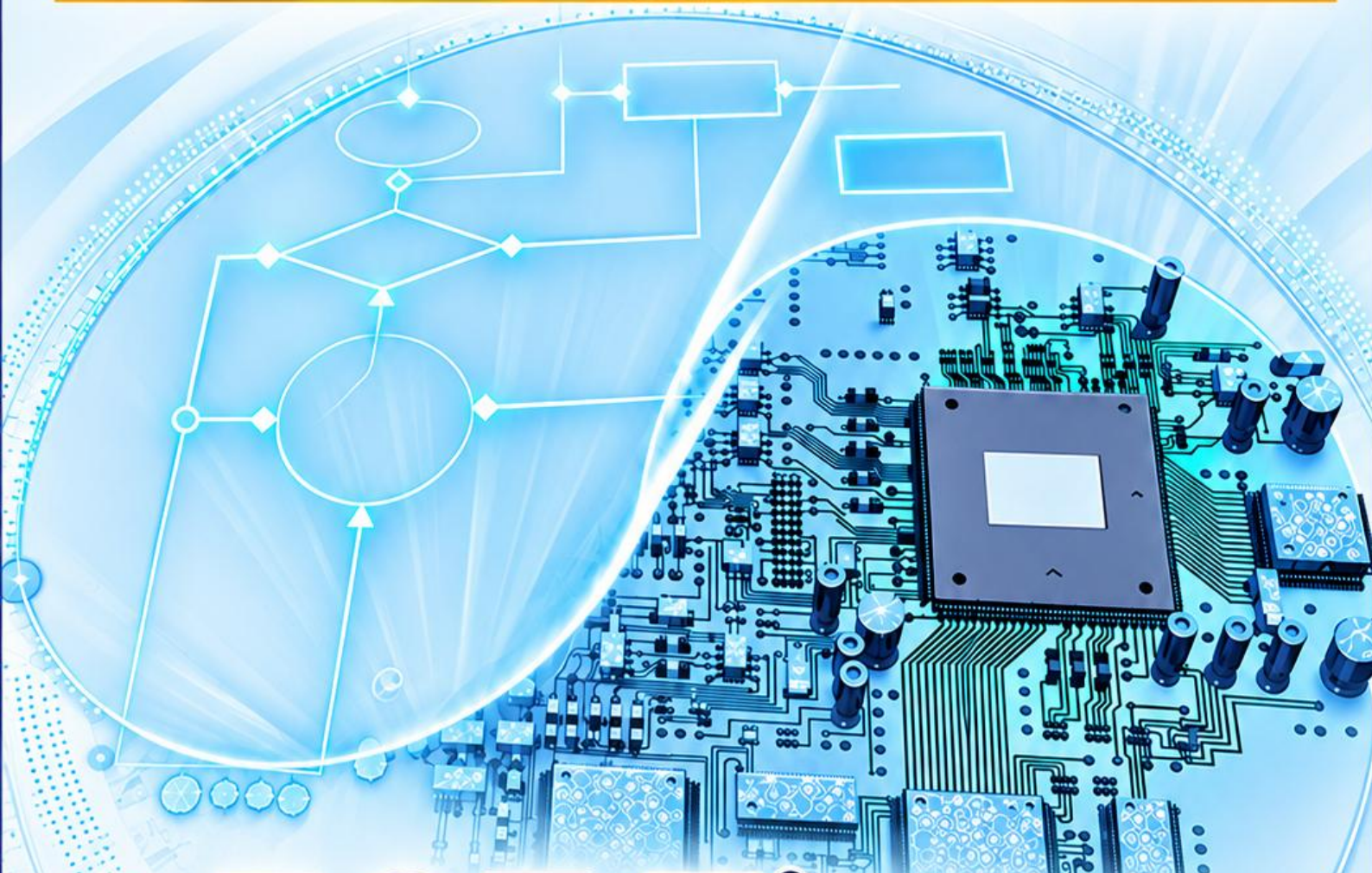
Bonam Venkata Chalamayya Engineering College(Autonomous), Odalarevu-533210

योगः कर्मसु कौशलम्

Department of Electronics and Communication Engineering

Jan-June 2025 | Volume No. 18 | Issue 2



ECE Times Newsletter

Insights. Innovations. Impact.

ECE BLOCK



Vision of the Department

To produce globally competent and ethically responsible Electronics and Communication Engineers capable of developing innovative, sustainable, and intelligent communication and electronic technologies to meet industrial and societal needs.

Mission of the Department

M1: To provide a robust academic environment through learner-centric pedagogy, state-of-the-art laboratory infrastructure, and exposure to emerging technologies like VLSI, IoT, and AI-driven communication systems.

M2: To bridge the gap between academia and industry by fostering collaborative research, innovation, and entrepreneurship through hands-on technical training and real-world problem-solving in electronic and communication technologies.

M3: To instil a strong sense of professional ethics, leadership, and lifelong learning in students, enabling them to develop sustainable and intelligent engineering solutions that address global societal and environmental challenges.

Message from the HOD



Dear Students, Faculty Members and Alumni,

I am delighted to present the Second Issue of the *ECE Times Newsletter* for the Academic Year 2024–25. This newsletter highlights the achievements, academic activities, technical events, workshops, seminars, research contributions, and innovations of the Department of Electronics and Communication Engineering.

As the new Head of the Department, I am committed to promoting academic excellence, research, innovation, and overall student development. I sincerely appreciate the dedicated efforts of our faculty members, students, alumni, and editorial team in strengthening the department.

I encourage our students to explore emerging technologies, develop innovative ideas, and strive for excellence in their professional careers.

I wish the ECE Department continued success and greater achievements in the years ahead.

With best wishes,

Dr. T. Saran Kumar
Head of the Department & Assoc.Professor
Bonam Venkata Chalamayya Engineering College, Odalarevu

CONGRATULATIONS

TO THE ACADEMIC TOPPERS – ECE

The Department of Electronics and Communication Engineering (ECE) proudly congratulates its outstanding academic achievers from the **2021 Admitted Batch** for their remarkable performance and exceptional academic excellence. Their dedication, perseverance, and commitment to learning have brought laurels to the department.

We are delighted to recognize and appreciate the following students for securing top ranks with excellent CGPAs. Their achievements serve as an inspiration to fellow students and reflect the department's commitment to academic excellence.

ACADEMic TOPPERS – 2021 Admitted BATCH – ECE

Rank	Name of the Student	Roll Number	CGPA
1	CHOLLANGI SNEHA SIVA DURGA PADMINI	21221A0442	9.31
2	CHOLLANGI CHANDRIKA LAKSHMI MADHU	21221A0441	9.23
3	BAVIREDDI SANKARARAO	21221A0419	9.28

Heartiest congratulations to all the achievers!

The Department of ECE wishes them continued success in all their future academic and professional endeavours. May their accomplishments motivate many more students to strive for excellence and reach greater heights.

Semester Toppers

TOPPERS LIST III B. TECH II SEMESTER

S.No	HTNo	NAME OF THE STUDENT	SGPA	Rank
1	22221A0437	Chodapaneedi Parvathi Devi	9.30	1
2	22221A0449	Dommeti Mouni Varshitha	9.09	2
3	22221A0411	Akula Uma Krishna Veni	9.02	3
4	22221A0427	Bonthu Anusri	9.02	3
5	22221A0444	Dangeti Mounika	9.02	3
6	22221A0456	Ganta Kusuma	9.02	3
7	23225A0414	Mutyala Dhana Durga	9.02	3

TOPPERS LIST II B. TECH II SEMESTER

S.No	HTNo	NAME OF THE STUDENT	SGPA	Rank
1	23221A04C3	Nimmakayala Sai Lakshmi Mownika	9.29	1
2	23221A0423	Bokka Madhusri	9.26	2
3	23221A0424	Bollireddy Rajkumar	9.19	3

TOPPERS LIST I B. TECH II SEMESTER

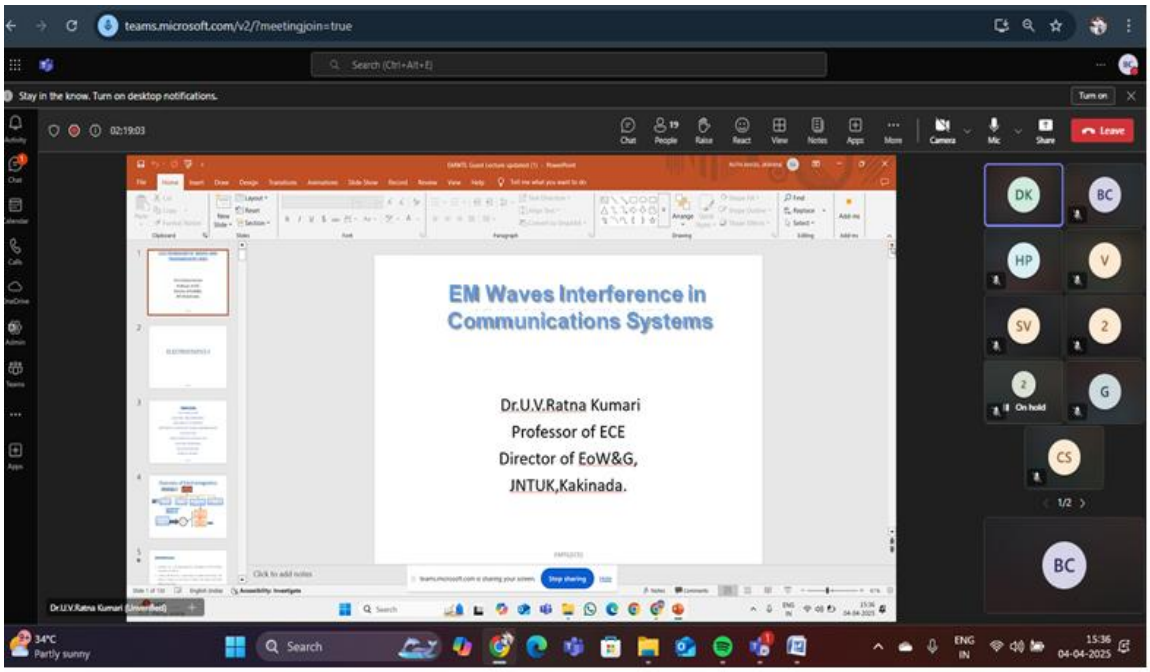
S.No	HTNo	NAME OF THE STUDENT	SGPA	Rank
1	24221A0426	Budithi Hima Bindu	9.85	1
2	24221A0499	Mandela Sri Latha	9.78	2
3	24221A0463	Isukapatla Gowtham	9.41	3

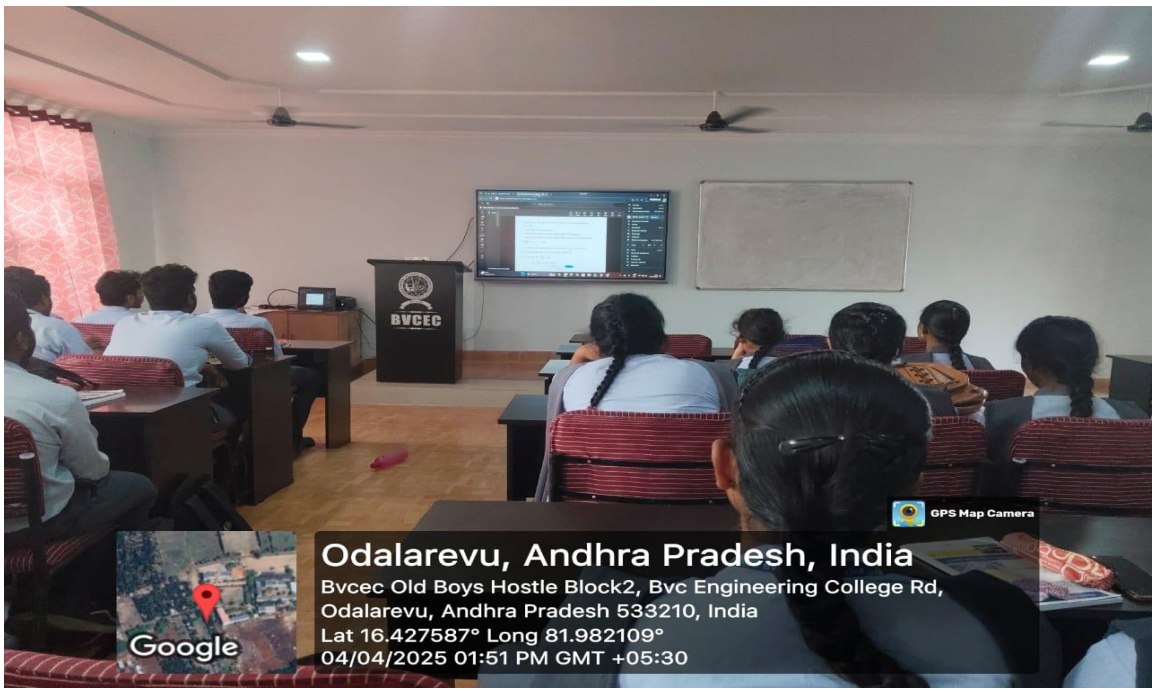
EVENTS ORGANIZED

GUEST LECTURE EM WAVES INTERFERENCE IN COMMUNICATIONS

The Department of Electronics and Communication Engineering, Bonam Venkata Chalamayya Engineering College, Odalarevu, organized an online guest lecture on **"EM Wave Interference in Communication Systems"** on 04-04-2025 from 1:30 PM to 3:40 PM for II Year B.Tech ECE students. The session was delivered by **Dr. U. V. Ratna Kumari**, Professor of ECE and Director of EoW&G, JNTUK, Kakinada.

The speaker explained the fundamentals of electromagnetic wave propagation, constructive and destructive interference, practical interference scenarios in wireless communication, and techniques for interference mitigation. She also highlighted applications in antenna design, wireless networks, and mobile communication.





Faculty Development Program

One Week FDP Program on High Performance MOSFETS for Next generation in VLSI Systems Organized by ECE Department during 7/1/2025 to 11/1/2025.Resource Person Mr. Nitin Reddy Vallapureddy, Application Engineer, TechFLUENT Solutions Pvt an experienced Application Engineer, served as the resource person for the one-week Faculty Development Programme (FDP) on "High Performance MOSFETs for Next Generation VLSI Systems." He shared his technical expertise and practical insights into engineering and simulation platforms, including LabVIEW, NI Multisim, Xilinx Vivado, and Altair tools. He also highlighted the applications of academic platforms such as NI myRIO, NI myDAQ, NI ELVIS II, and EasyDAQ systems. His sessions focused on software installation, configuration, hardware integration, troubleshooting, and hands-on technical applications, providing valuable exposure to faculty members and students in emerging VLSI technologies and engineering practices.



ONE WEEK TRAINING PROGRAM ON EMBEDDED SYSTEMS

A six-day training programme on Embedded Systems and Microcontroller Programming was conducted by Tesla Embedded & IoT Club of ECE from 7/3/2025 to 13/3/2025 for B.Tech III Year students. The programme was conducted by APSSDC Trainer Mr. R. Kiran Kumar, coordinated by Mr. G. Sudheerbabu, with 100 participants. The training covered 8051 microcontrollers, Embedded C programming, Keil IDE, Proteus software, and Arduino platforms. Students gained practical knowledge through hands-on sessions on LED interfacing, switches, motors, relays, and seven-segment displays. The programme enhanced students' technical skills and enabled them to develop simple real-time embedded projects.





Mini Pongal Celebrations-2025

The Department of Electronics and Communication Engineering celebrated Mini Pongal on 11th January 2025 with great enthusiasm and traditional spirit. The celebration aimed to promote cultural values, unity, and the importance of traditional festivals among faculty members and students. The event featured a beautifully decorated Pongal setup with flowers, traditional decorations, and a display of cultural elements.





FACULTY JOURNAL/CONFERENCE /PATENTS/PUBLICATIONS

International Journals

1. Akula Pravin, Inukonda Rama Satya Nageswara Rao and Kanakala Sivaranjini "Embedded system -based restaurant automation," IJERSM, vol.3, issue 4, 2024,pp. 29-32, doi:https://doi.org/10.58482/ijeresm.v3i4.4ISSN: 2583-4894.(UGC)29-32, Oct-Dec 2024.

2. Thoram Saran Kumar; Yegireddi Satya Vinod "Performance Analysis of Tera Hertz Frequencies On Intelligent Reflecting Sueface For 6G Communications," in International Journal of Electrical and Electronics Research (IJEER), Vol. 13, Issue 2, pp. 319–324, ISSN No.: 2347-470X, 2025, Indexing: Scopus. URL: https://ijeer.forexjournal.co.in/archive/volume-13/ijeer-130216.html

3. Inukonda Rama Satya Nageswara Rao; Thoram Saran Kumar "Design analysis of memoristor-based 7T SRAM using heterojunction tunneling transistors," in Journal of Circuits, Systems and Computers, Vol. 34, Issue 17, Art. No. 2550280, p. 39, ISSN No.: 1793-6454, 2025, Indexing: SCIE. DOI: https://www.worldscientific.com/doi/abs/10.1142/S0218126625502809

4. Kusuma Raja Sekhar; Valluri Dhanaraj; Sabbathi Leelaveni Veni "A Novel Approach Foe Early Flood Warning using Android and IoT," in IJESR, Vol. 14, Issue 4, pp. 59–71, ISSN No.: 2277-2685, 2025, Indexing: UGC.

Conference Publications

1. G. Sudheer Babu – "Advancing imperceptible data hiding: A novel GAN-based framework for robust and high-capacity steganography in digital media," in Proceedings of the 2025 IEEE-Explore (AICS), ISBN No.: 979-8-3503-7651-7.DOI: https://ieeexplore.ieee.org/document/10808746

2. Dr. T. Saran Kumar; I. Rama Satya Nageswara Rao – "Low power adder circuit design and implementation using lector technique," in Proceedings of the 2025, ICST Social Informatics and Telecommunication Engineering, ISBN No.: 978-3-031-77078. DOI: https://link.springer.com/chapter/10.1007/978-3-031-77078-4_15

3. Dr. T. Saran Kumar – "Real-time IOT-Based Vehicles Accident Detection and Emergency Response System Using Multi-Sensor," in Proceedings of the 2025 IEEE-Explore (AICS), ISBN No.: 979-8-3315-3366-3.DOI: https://ieeexplore.ieee.org/document/11085941

Patent Publications

1. Thoram Saran Kumar; Inukonda Rama Satya Nageswara Rao – "Machine Learning Based Colour Guided Material Handling Robotic Device," Application No.: 450324-001, Date of Filing: 23-04-2025, Date of Publication: 21-08-2025.

2. Thoram Saran Kumar – "Very Large Scale Integrated VLSI Circuit Design For Technology Migration," Application No.: 202441101742 A, Date of Filing: 22-12-2024, Date of Publication: 03-01-2025.

3. Thoram Saran Kumar – "A Novel System And Method For Integration Of Thing (IOT) With 5G Network," Application No.: 202511002687 A, Date of Filing: 11-01-2025, Date of Publication: 28-02-2025.

4. Seelam Naga Bharghavi – "Face Recognition And Voice Assist-Based Vehicle Ignition And Controlling System," Application No.: 202541007273 A, Date of Filing: 29-01-2025, Date of Publication: 07-02-2025.

5. Inukonda Rama Satya Nageswara Rao – "Efficient Wireless Power Transfer System For IOT Device Using Resonant Coupling and Adaptive Energy Optimization," Application No.: 202511012446 A, Date of Filing: 13-02-2025, Date of Publication: 28-02-2025

Faculty FDPs/Workshops Attended

S.No.	Name of Faculty	Name of FDP/Workshop	Organizing Institution	Duration
1	Dr. Valluri Dhanaraj	(ATAL) Academy Faculty Development Program on Recent Trends In High Performance Computing Using AI	Bonam Venkata Chalamayya Institute of Technology & Science, Amalapuram	17/02/2025 to 22/02/2025
2	Dr. Kompella Bhaskara Srinivasa Sarma	(ATAL) Academy Faculty Development Program on Recent Trends In High Performance Computing Using AI	Bonam Venkata Chalamayya Institute Of Technology & Science, Amalapuram	17/02/2025 to 22/02/2025
3	Dr. Thoram Saran Kumar	Machine learning and artificial intelligence in data science	PACE Institute of Technology & Science, Ongole	24/05/2025 to 02/06/2025
4	Mrs. Chavakula Sridevi	(ATAL) Academy Faculty Development Program on Recent Trends In High Performance Computing Using AI	Bonam Venkata Chalamayya Institute Of Technology & Science, Amalapuram	17/02/2025 to 22/02/2025
5	Ms. Pangam Harika	Machine learning and artificial intelligence in data science	Bonam Venkata Chalamayya Institute Of Technology & Science, Amalapuram	24/05/2025 to 02/06/2025
6	Mr. Yegireddi Satya Vinod	(ATAL) Academy Faculty Development Program on Recent Trends In High Performance Computing Using AI	Bonam Venkata Chalamayya Institute Of Technology & Science, Amalapuram	17/02/2025 to 22/02/2025
7	Mr. Inukonda Rama Satya Nageswara Rao	Machine learning and artificial intelligence in data science	PACE Institute of Technology & Science, Ongole	24/05/2025 to 02/06/2025
8	Ms. Gosangi Sukanya	(ATAL) Academy Faculty Development Program on Recent Trends In High Performance Computing Using AI	Bonam Venkata Chalamayya Institute Of Technology & Science, Amalapuram	17/02/2025 to 22/02/2025
9	Ms. Kanakala Sivaranjini	(ATAL) Academy Faculty Development Program on Recent Trends In High Performance Computing Using AI	Bonam Venkata Chalamayya Institute Of Technology & Science, Amalapuram	17/02/2025 to 22/02/2025
10	Ms. Kankipati Swathi	Machine learning and artificial intelligence in data science	PACE Institute of Technology & Science, Ongole	24/05/2025 to 02/06/2025
11	Mrs. Chikkam Surya RamagourI	(ATAL) Academy Faculty Development Program on Recent Trends In High Performance Computing Using AI	Bonam Venkata Chalamayya Institute Of Technology & Science, Amalapuram	17/02/2025 to 22/02/2025

S.No.	Name of Faculty	Name of FDP/STTP	Organizing Institution	Duration
12	Mrs. Chavakula Sridevi	5-day Online Faculty Development Programme on Advancements in Signal Processing using AI,	Pragati Engineering College, Surampalem	21/04/2025 to 25/04/2025
13	Mr. Paramkusa M Arudra	Machine learning and artificial intelligence in data science	PACE Institute of Technology & Science, Ongole	24/05/2025 to 02/06/2025
14	Mrs. Chavakula Sridevi	Five day Online Faculty Development Program titled "Next Generation Techniques in Signal Processing"	GMR Institute of Technology, Rajam Siddhartha Academy of Higher Education-Deemed to be University, Vijayawada from.	19/5/2025 to 23/5/2025
15	Mrs. Balla Naga Lakshmi	Machine learning and artificial intelligence in data science	PACE Institute of Technology & Science, Ongole	24/05/2025 to 02/06/2025
16	Bonthu Chandra Praveen	Machine learning and artificial intelligence in data science	PACE Institute of Technology & Science, Ongole	24/05/2025 to 02/06/2025
17	Peyyela Rajesh	Machine learning and artificial intelligence in data science	PACE Institute of Technology & Science, Ongole	24/05/2025 to 02/06/2025
18	Mrs. Chavakula Sridevi	One Week online FDP on " Innovative Technologies in Antennas for High Frequency Applications(ITAHFA-2025)	GMR Institute of Technology, Rajam and SAIRAMIT,Chennai	17/02/2025 to 22/2/2025
19	Mrs. Chavakula Sridevi	One day Online Training on POSH ACT 2013,The Sexual Harassment Of Women At Workplace (Prevention, Prohibition And Redressal) ACT, 2013	Tech Trainer and Tester Pune, Pune	25/02/2025

Student Publications

S. No.	Paper Title	Name of the Author(s)	Name of the Journal
Design And RF Performance Analysis Of A Double-Gate Ga_2O_3 MOSFET For Next-Generation RFIC Applications	K. Uday Kiran; L. Anu Satya Sri; M. Naga Ganapathi; K. Sri Hartheek; G. Lakshmi Durga; J. Umamaheswari	International Journal of Creative Research Thoughts (IJCRT)	Volume No.: 13; Issue No.: 4; Year: 2025; ISSN No.: 2320-2882
High Performance And Energy Efficient Fin-Fet Based 1-Bit Pt Full Adder	Js. Sruthi Sravani; R. Balaram; S. Baby Poojitha; N. N. V. S. S. D. Ganesh; S. Leelaveni; N. S. N. L. Pathi Raju	International Journal of Creative Research Thoughts (IJCRT)	Volume No.: 13; Issue No.: 4; Year: 2025; ISSN No.: 2320-2882
Vehicle Number Plate Recognition Using Matlab	B. Nagendra Babu; B. Pardha Sai Bhaskar; Ch. Vara Prasad; A. Chaitanya Naga Sai; K. Lakshmi Priyanka; M. Nomitha Reddy	International Journal of Creative Research Thoughts (IJCRT)	Volume No.: 13; Issue No.: 4; Year: 2025; ISSN No.: 2320-2882
DESIGN AND IMPLEMENTATION OF 4-BIT VEDIC MULTIPLIER IN 18nm Finfet TECHNOLOGY	Koppisetti Sai Anuja; Mandela Jaya Sri Ramanjaneya; Mahadasa Abhiram; Polamuri Sandeep; K. Swathi; M. Mounika Varalakshmi	International Journal of Creative Research Thoughts (IJCRT)	Volume No.: 13; Issue No.: 4; Year: 2025; ISSN No.: 2320-2882
Design And Performance Assessment Of Multiplexers Using Finfets	B. Nukambica Devi; V. S. R. V. Harini; P. Sasi Kiran; T. S. C. Kasi; Dr. Thoram Saran Kumar; Nalla Ratna Priyanka	International Journal of Scientific Development and Research (IJSDR)	Volume No.: 10; Issue No.: 4; Year: 2025; ISSN No.: 2455-2631
Design And Implementation Of A Two-Element MIMO Antenna Utilizing Metamaterial-Based Superstrate For 5G Applications	K. Mahesh; N. S. Ganesh; J. Madhu; P. S. N. Murthy; Dr. V. Dhana Raj; Ch. Sridevi	International Journal of Scientific Development and Research (IJSDR)	Volume No.: 10; Issue No.: 4; Year: 2025; ISSN No.: 2455-2631
Low Power Optimization 8t Full Adder Using Finfet Technology	R. Gopichand; P. Sowjanya; M. Lakshmi Jahnavi; M. B. S. Srimannarayana; K. Siva Ranjani; Kondamuri Purna Sidhu	International Journal of Research and Analytical Reviews (IJRAR)	Volume No.: 12; Issue No.: 1; Year: 2025; ISSN No.: E-ISSN 2348-1269; P-ISSN 2349-5138
Blind Spot Detection System For Vehicles	V. Rajya Lakshmi; B. V. S. P. Sai Vyshnavi; R. Anusha; S. Venkatesh; Ch. S. R. Gowri; N. Phanikumar	International Journal of Research and Analytical Reviews (IJRAR)	Volume No.: 12; Issue No.: 1; Year: 2025; ISSN No.: E-ISSN 2348-1269; P-ISSN 2349-5138
Smart Waste Management Using Ultrasonic Sensor	Budumuri Rajasekhar; Achanta Vivek; Gorrela Uma; Bonthu Abhishek; Gidla Sudheer Babu; S. N. V. D. L. Priyanka	International Journal of Research and Analytical Reviews (IJRAR)	Volume No.: 12; Issue No.: 1; Year: 2025; ISSN No.: E-ISSN 2348-1269; P-ISSN 2349-5138
Low Power 4×1 Multiplexer Design Using Cmos And Finfet Technologies	S. J. V. Sravani; R. Lokesh; Y. K. V. S. D. Naveen; Y. D. Shankar; T. S. S. Kiran Kumar; I. Rama Satya Nageswara Rao; Kondamuri Naga Teja	International Journal of Research and Analytical Reviews (IJRAR)	Volume No.: 12; Issue No.: 1; Year: 2025; ISSN No.: E-ISSN 2348-1269; P-ISSN 2349-5138

PROGRAM EDUCATIONAL OBJECTIVES:

PEO1:
Graduates will apply strong fundamentals of electronics and communication engineering to analyze, design, and develop innovative electronic and communication systems using modern engineering tools for industrial and societal applications.

PEO2:
Graduates will pursue successful careers in industry, research organizations, and entrepreneurship or engage in higher education, demonstrating innovation, technical competence, and adaptability in emerging areas such as VLSI, IoT, and intelligent communication systems.

PEO3:
Graduates will demonstrate professional ethics, leadership, teamwork, and lifelong learning while developing sustainable engineering solutions to address global technological and societal challenges.

PROGRAM OUTCOMES (POS):

PO1: Engineering Knowledge: Apply knowledge of mathematics, natural science, computing, engineering fundamentals and an engineering specialization respectively to develop to the solution of complex engineering problems.

PO2: Problem Analysis: Identify, formulate, review research literature and analyze complex engineering problems reaching substantiated conclusions with consideration for sustainable development.

PO3: Design/Development of Solutions: Design creative solutions for complex engineering problems and design/develop systems/components/processes to meet identified needs with consideration for the public health and safety, whole-life cost, net zero carbon, culture, society and environment as required.

PO4: Conduct Investigations of Complex Problems: Conduct investigations of complex engineering problems using research-based knowledge including design of experiments, modelling, analysis & interpretation of data to provide valid conclusions.

PO5: Engineering Tool Usage: Create, select and apply appropriate techniques, resources and modern engineering & IT tools, including prediction and modelling recognizing their limitations to solve complex engineering problems.

PO6: 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.

PO7: 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.

PO8: Ethics: Apply ethical principles and commit to professional ethics, human values, diversity and inclusion; adhere to national & international laws.

PO9: Individual and Collaborative Team work: Function effectively as an individual, and as a member or leader in diverse/multi-disciplinary teams.

PO10: Communication: Communicate effectively and inclusively within the engineering community and society at large, such as being able to comprehend and write effective reports and design documentation, make effective presentations considering cultural, language, and learning differences

PO11: Project Management and Finance: Apply knowledge and understanding of engineering management principles and economic decision-making and apply these to one's own work, as a member and leader in a team, and to manage projects and in multidisciplinary environments.

PO12: Life-Long Learning: 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:

PSO 1: Graduates will be able to analyze, design, and implement complex electronic systems and communication networks using modern hardware-software tools in the areas of VLSI, Embedded Systems, IoT, and AI-driven signal processing.

PSO 2: Graduates will be able to apply ECE principles to develop innovative, cost-effective, and sustainable solutions for real-world industrial and societal problems, while adhering to professional ethics and environmental standards

EDITORIAL BOARD

FACULTY EDITORS

1. **Mr. Inukonda Rama Satya Nageswara Rao**
   Assistant Professor, ECE
2. **Mrs. K. L. Priyanka Naidu**
   Assistant Professor, ECE

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3. **Mr. Ch. Manikantha**
   Roll No.: 23221A0436