



ECHOS

VOICE OF ECE

DEPARTMENT OF
ELECTRONICS AND COMMUNICATION ENGINEERING

FACULTY TEAM



Dr. I. GOVARDHANI
Chairman and Publisher



Dr. D Venkata Ratnam
Co-publisher



Dr.M.Siva Ganga prasad
Managing Director



Dr. Sampad Kumar Panda
Managing Editor



Dr. G S K Santosh
Managing Editor



Dr. M Sujatha
Managing Editor



Dr. P Syam Sundar
Chief Editor



Mr. P Srikanth Reddy
Associate Editor

From HoD desk

It gives me immense pleasure to present this edition of the Department of Electronics and Communication Engineering Newsletter, following the successful completion of Volume I. This volume stands as a testimony to the collective efforts, dedication, and enthusiasm of our faculty members, research scholars, and students.

The department continues to foster a strong academic and research-driven environment, encouraging students to explore opportunities beyond the classroom. The achievements highlighted in this issue—including national-level internships, global recognitions, research contributions, and leadership roles—reflect our commitment to nurturing technically competent, socially responsible, and future-ready engineers.

I am particularly proud of our students who have represented the department on prestigious national and international platforms, showcasing their skills, discipline, and innovative mindset. Such accomplishments not only bring laurels to the individuals but also strengthen the academic reputation of the department.

I congratulate all the achievers featured in this newsletter and appreciate the relentless efforts of the faculty members who mentor and guide them. I also commend the editorial team for their dedication and teamwork in bringing out this well-structured and insightful publication after the successful completion of Volume I.

Let us continue to strive for excellence, innovation, and impactful contributions to society through knowledge and engineering leadership.

Dr. I. GOVARDHANI
HOD-ECE



ABOUT DEPARTMENT

Engineering (ECE), established in 1983, boasts 120 distinguished faculty members, including 101 with PhD degrees, while others are pursuing PhDs. Faculty with rich industry experience cater to both academic and industry needs. State-of-the-art laboratories, Centers of Excellence, and Research Centers support UG, PG, and PhD students, emphasizing R&D activities and innovative exploration beyond the curriculum.

With Rs. 259 million in sponsored projects from DST, ISRO, and others, the department showcases a strong research culture, publishing over 3300 peer-reviewed articles. The vibrant academic calendar includes advanced certificate courses, seminars, visiting foreign faculty, and student paper contests. Student development programs, industry alliances, and active associations further enhance the department's offerings.

VISION

To become a world-class department in the frontier regions of Electronics & Communication Engineering.

MISSION

- To bring forth graduates possessing professional excellence.
- To conduct quality research with social & industrial application.
- To render technical assistance in converting the learners into entrepreneurs.

PULSE – THE DRIVING FORCE OF ECE

PULSE, the official student body of the Department of Electronics and Communication Engineering, is more than a club – it is a vibrant platform that nurtures leadership, innovation, and collaboration among students. By transforming classroom knowledge into meaningful real-world experiences, PULSE bridges the gap between theory and practice, strengthening technical expertise along with essential skills such as teamwork, decision-making, and problem-solving.

Through a dynamic blend of technical, cultural, and community-driven initiatives, PULSE creates opportunities for students to explore, innovate, and grow – both academically and personally.

Key Initiatives

- Mock Expo – A 24-hour problem-solving marathon encouraging creativity, innovation, and collaborative learning.
- Technical Sessions – Expert-led workshops focused on electronics and emerging technologies.
- Circuit Crusade – A competition designed to strengthen core fundamentals in electronics and circuit design.
- Idol of ECE – A circuit-based technical contest recognizing outstanding student talent.
- 100 Days – 50 Projects – An intensive initiative motivating students to complete 50 innovative projects in domains such as VLSI, Embedded Systems, and Core Electronics within 100 days.

Clubs Under PULSE

- Embedded & IoT Club – Advancing smart systems and connected solutions.
- Always VLSI Club – Inspiring innovation in semiconductor and chip design.
- Robotronics Club – Exploring robotics and automation through teamwork and creativity.
- Nanotron Club – Promoting curiosity and research in nanotechnology and advanced materials.



SUCCESSFUL COMPLETION MEET – NEWSLETTER VOLUME 1



The Successful Completion Meet of Newsletter Volume 1 was organised to commemorate the culmination of months of dedicated effort, creativity, and teamwork invested in bringing the first volume of the newsletter to fruition. The meeting provided an opportunity to reflect on the journey from conceptualisation to publication and to celebrate the collective achievements of the team. Throughout the development of Volume 1, the team worked collaboratively across content creation, editing, design, and coordination, ensuring quality and timely execution at every stage. The successful release of the newsletter marked an important milestone and laid a strong foundation for future editions. As part of the event, the team was felicitated for their overall performance and valuable contributions, and their commitment, perseverance, and teamwork were acknowledged. The recognition served as encouragement and appreciation for the efforts that transformed ideas into a well-structured and impactful publication. The meeting concluded with words of motivation and appreciation, reinforcing the importance of collaboration and innovation. The success of Newsletter Volume 1 serves as an inspiration to set higher standards and maintain continued excellence in the upcoming volumes.

RESEARCH LABORATORY INFRASTRUCTURE SPOTLIGHT

Antenna Test Setup : Room Number: L707

The Antenna Radiation Pattern Measurement System is a laboratory setup used to evaluate the performance characteristics of various antennas. It consists of transmitting and receiving antennas mounted on calibrated rotating turntables inside an anechoic chamber lined with RF absorbing material to minimize reflections. The system measures key antenna parameters such as radiation pattern, gain, beamwidth, directivity, front-to-back ratio, and polarization. A signal generator provides RF input, while a detector or network analyzer records received power levels. The rotating mechanism enables precise angular measurements, allowing accurate plotting of antenna radiation characteristics for communication and microwave engineering applications.



Applications:

- Antenna radiation pattern measurement.
- Gain and directivity analysis.
- Wireless communication system design.
- Satellite communication testing.
- Radar system development.

AKADEMIKA AMS-A:

Room Number: L707

The AKADEMIKA AMS-A Antenna Measurement System is a laboratory instrument designed for analyzing antenna characteristics. It integrates a PLL synthesized RF signal generator (100 MHz–3 GHz), RF detector, and stepper motor controller for automated antenna rotation. The system enables precise measurement of radiation patterns, gain, beamwidth, front-to-back ratio, and other key antenna parameters. A digital display and keypad interface allow frequency selection, measurement control, and data acquisition. The built-in RF output and input ports connect to transmitting and receiving antennas during testing. This compact system is widely used in communication engineering laboratories for practical antenna performance evaluation and experimentation.

Applications:

- Antenna radiation pattern measurement.
- Gain and directivity analysis.
- Wireless communication system design.
- Satellite communication testing.
- Radar system development.



PCB PROTOTYPING:

Room Number: L708

The PCB Prototype Machine is a compact CNC-based milling system used to fabricate printed circuit boards directly from digital design files. It removes unwanted copper from a copper-clad board using a high-speed rotating drill bit, creating circuit traces without chemical etching. The machine operates with computer-controlled X, Y, and Z axes for precise routing, drilling, and engraving. It supports rapid prototyping, allowing engineers and students to quickly test electronic circuit designs. The enclosed structure ensures safety during operation. This system is widely used in electronics laboratories for fast, clean, and accurate PCB development.

Applications:

- Rapid PCB prototyping
- Academic electronics laboratories
- R&D circuit testing
- Custom PCB manufacturing (small scale)



FACULTY CORNER

Faculty Achievements

The Department of Electronics and Communication Engineering proudly celebrates the remarkable accomplishments of its faculty members, reflecting our continued commitment to academic excellence, research advancement, and holistic development.

Professional Certification Excellence

Four faculty members completed the Realtime Programming for the QNX Operating System certification offered by QNX and delivered through the approved training partner Pi-Square. This achievement strengthens our expertise in real-time and embedded system technologies, reinforcing industry-aligned academic delivery within the department.

Name	Course	Issued By
Dr N Praba-karan	Realtime Programming for the QNX Operating System	QNX, a division of Blackberry
Dr Atul Kumar	Realtime Programming for the QNX Operating System	QNX, a division of Blackberry
Dr A V Prabhu	Realtime Programming for the QNX Operating System	QNX, a division of Blackberry
Dr J Rajasekhar	Realtime Programming for the QNX Operating System	QNX, a division of Blackberry



RESEARCH CONTRIBUTION AT NATIONAL FORUM

Dr Debajit Deb, Assistant Professor, presented a research paper at the Symposium on Magnetism and Spintronics (SMS 2026), organised by the Indian Institute of Technology Hyderabad, held from January 21–24, 2026. His participation highlights the department’s active engagement in advanced research domains, such as magnetism and spintronics, and underscores our strong presence on reputable national academic platforms.



PROFESSIONAL LEADERSHIP RECOGNITION

Dr Venkata Kishore K. was honoured with a Certificate of Appreciation for his role as an IEEE Day 2025 Ambassador under IEEE. This recognition reflects his leadership, professional service, and contribution toward fostering global technical engagement, bringing distinction to the department.



COMMITMENT TO SOCIAL RESPONSIBILITY

Dr M. Siva Kumar received a Certificate of Completion for participating in the “5K Run for the Spirit of Unity,” organised by Sri Sathya Sai Seva Organisations at Vijayawada on February 8, 2026. His participation demonstrates the department’s emphasis on unity, human values, and holistic development beyond academics.



EXCELLENCE BEYOND ACADEMICS

Dr Fazal Noorbasha, Associate Professor and Associate Dean (Academics), was honoured at the NTR National Open Karate Championship – 2026 held at Tadepalli, Guntur. A Black Belt (1 DAN) and National Gold Medalist, his achievement exemplifies excellence in both academic leadership and personal accomplishment, bringing pride to the department and university.



INTERNATIONAL RESEARCH PARTICIPATION

Mrs. Iswarya S., Ph.D. scholar under the supervision of Dr. Sampad Kumar Panda, received a fully funded invitation to attend the ISWI-SCOSTEP International School on Space Weather (ISSW) at Indian Institute of Geomagnetism, Navi Mumbai, from January 5–9, 2026.

She further presented a research paper at the 4th Indian Space Weather Conference (ISWC-4), organized by Physical Research Laboratory, Ahmedabad, during January 29–30, 2026. These accomplishments highlight her active research engagement and the department’s strong encouragement of scholarly excellence.



FACULTY CERTIFICATION IN IIOT PROGRAMMING & AUTOMATION – L2



DR. FAZAL NOORBASHA FOR HIS OUTSTANDING PERFORMANCE AT THE STATE LEVEL UNIVERSITY FACULTY CRICKET CHAMPIONSHIP – CHANDUCUP 2026.

Leading KL University as Captain, he secured a 48-run victory and earned the Player of the Match (MVP) title with an impressive all-round performance. His achievement reflects excellence in leadership, teamwork, and sportsmanship beyond academics.



cricheroes
KL university 146/8 (20.0) **Result**
SRKREC TEAM B 98/10 (19.5) 348 views
KL university won by 48 runs
Player of the match
Dr Fazal Noorbasha 8.77 MVP
KL university 71(40) 134s 26s 2.0-0-25-1
Your cricket matters
Today's match as Captain leading my team 🏏🔥

ARTICLES

Published Research Article Highlight

Title: High-Speed and Power-Efficient Ternary Logic Designs Using GNR Transistors
A research article titled High-Speed and Power-Efficient Ternary Logic Designs Using GNR Transistors was published online on 18 January 2024 in the international journal e Prime – Advances in Electrical Engineering, Electronics and Energy, published by Elsevier.

About the Article

The published work focuses on the design and analysis of ternary logic circuits using Graphene Nanoribbon Field Effect Transistors (GNRFETs). Unlike conventional binary logic, ternary logic enables higher data density, reduced interconnect complexity, and improved power efficiency—making it highly suitable for next-generation VLSI systems.

The study presents the design of ternary logic gates such as inverters, AND, OR, NAND, and NOR, implemented using GNRFET technology. Circuit simulations were carried out using the HSPICE tool to evaluate key performance parameters including delay, power dissipation, and power-delay product (PDP).

Key Outcomes

- The proposed GNRFET-based ternary circuits demonstrated significant improvement in speed and power efficiency compared to existing CNTFET-based designs.
- Performance analysis under process, voltage, and temperature (PVT) variations confirmed the robustness and reliability of the designs.
- The results highlight GNRFET technology as a promising solution for low-power, high-performance VLSI and nanoelectronic applications.

This publication reflects the department's strong research orientation and its contribution to advancements in VLSI design and nanoelectronics.

Dr. Syed Shammem

Associate Professor



భారతావని వందనం

మంచుపూలను సిగన తురిమిన భరతమాతకు వందనం
భావి తరముల బాట వేసిన నాయకులకభివందనం
వందనం ... అభివందనం ... వందనం ... వందేమాతరం ...
వందనం ... అభివందనం ... వందనం ... వందేమాతరం ||

|| మంచుపూలను ||

భగత్సింగ్, సుభాష్ బోసు చంద్రశేఖర్ అజాదంటి
వీర బిడ్డల కన్న తల్లికి వందనం ... అభివందనం ...
తెల్ల దొరలను విల్లు పట్టి గజగజా వణికించినట్టి
అగ్గిపిడుగల్లూరి తల్లికి వందనం ... వందేమాతరం ... ||

|| మంచుపూలను ||

బానిసత్వపు చెరలనుండి రెక్క విప్పిన లేత ముదితకు
వందనం ... అభివందనం ... వందనం ... వందేమాతరం ...
క్రొత్త చివురులు తోడుగు అవని భారతావని వందనం
వందనం ... అభివందనం ... వందనం ... వందేమాతరం ||

|| మంచుపూలను ||

పి. శ్యాం సుందర్
అసోసియేట్ ప్రొఫెసర్
ECE డిపార్ట్ మెంట్



डरत हो भाई.

बढ़ चतुराई तेरी काम न आई.
जड़ धन तने बड़ु खूब कमाई.
तन तजै पाण चंद पलों काम.
मरने से क्या डरत हो भाई.

जतई बढ़ गहोरी उतई बढ़ भय.
लोभ-प्यास कि होत ना छय.
अंत की अब याद है आई.
मरने से क्या डरते हो भाई.

आशिष.

The poem urges a person not to fear death. It says that cleverness, wealth, and worldly achievements do not ultimately help. Life is short, and attachment, greed, and desires keep growing, but they never bring true peace.

In the end, everyone must face death, so fearing it is pointless. It encourages accepting life's inevitable end with calmness and understanding.

Dr. Ashish Mishra

STUDENT CORNER

Student Achievements

Our students and research scholars continue to make significant strides at national and international platforms, reflecting the vibrant research culture of the department.

Global Student Recognition

CH. Guru Gowtham, B.Tech 2nd Year student, was selected as an Ambassador for IEEE YESIST12 2026, a prestigious global initiative under IEEE. Chosen among only 250 ambassadors worldwide, his selection reflects outstanding leadership potential and innovative spirit. This international recognition adds to the growing global footprint of the department.



NATIONAL-LEVEL INTERNSHIP EXPERIENCE

Babitha Lakshmi, B.Tech Electronics & Communication Engineering student (Student ID: 2300040398), completed a research-oriented internship at Vikram Sarabhai Space Centre, Thiruvananthapuram, under the Indian Space Research Organisation, Government of India.

During the internship (04 December 2025 – 24 December 2025), she worked on “Familiarisation of Vehicle Checkout Systems for the LVM3 M6 Mission,” gaining exposure to real-time space mission systems and advanced engineering practices. This achievement highlights her technical aptitude, dedication, and growing interest in space and communication technologies, contributing to the department’s strong national presence.



STUDENT VOICES: EMS ND STORIES

రాత్రి 12 గంటలు.

గది చీకటిలో ఉంది.

ఫోన్ వెలుగు మాత్రమే నిర్మల్ ముఖంపై పడుతోంది.

స్కోల్... లైక్... సేవ్...

కాని జీవితం మాత్రం ముందుకు కదలడం లేదు.

“వాడు సెటిల్ అయ్యాడట...”

వాడు జాబ్ సంపాదించాడట...”

‘అట’ అనే మాటలతోనే తన ప్రపంచం నిండిపోయింది.

ఉదయం అమ్మ అడిగింది,

“డిగ్రీ అయి రెండేళ్లు అవుతోంది... నీ జీవితం ఏం చేస్తున్నావు?”

“ట్రై చేస్తున్నా...” అన్నాడు నిర్మల్.

కాని ఆ ‘ట్రై’ లో ఎంత భయం ఉందో ఎవరికీ తెలియదు.

రిఫై రాకపోతే అనుమానం.

రిజెక్షన్ వస్తే ఆత్మగౌరవం దెబ్బతింటుంది.

ఒక రోజు తండ్రి అన్నాడు:

“జీవితాన్ని ఫోన్లో వెతుకుతున్నావు. జీవితం ఫోన్లో దొరికితే ఎవరూ ఫెయిల్ అవరు.”

ఆ మాట అతని మనసును కదిలించింది.

మరుసటి రోజు ఫోన్ ఆఫ్ చేశాడు.

మొదట నిశ్శబ్దం భయంగా అనిపించింది.

కాని తరువాత అర్థమైంది...

భయంకరమైనది నిశ్శబ్దం కాదు.

మన జీవితాన్ని ఎదుర్కొనకపోవడమే.

కొన్ని నెలల తర్వాత ఫ్రెండ్ అడిగాడు:

“సెటిల్ అయ్యావా?”

నిర్మల్ నవ్వుతూ అన్నాడు:

“సెటిల్ అయ్యానని చెప్పలేను. కానీ ఇప్పుడు నేను నా దారిలో నడుస్తున్నాను.”

వేగం ఆలస్యమైనా పర్వాలేదు.

దారి సరైనదైతే చాలు.

ఈ కథలో హీరో పెద్ద విజయాన్ని సాధించలేదు.

కాని ఒక పని చేశాడు —

తన జీవితంనుంచి పారిపోవడం ఆపేశాడు.

అదే అతని నిజమైన విజయం.

“ఇంకా నీ జీవితం అర్థం చేసుకుంటూ ఉన్నావంటే...

నువ్వు ఆలస్యం కాలేదు.

నువ్వు కేవలం మనిషివి.”

P HIMACHARAN

2400040212



STUDENTS BEHIND THIS NEWSLETTER



CO - ORDINATER
2300040351
JYOTHSNA . S



DATABASE
O . KOUSHIK
2300040424



DATABASE
2300040404
HARSHA SAI



RESEARCH & FACULTY
ACHIEVEMENTS
2300040248 P.S.V.Ramana



DRAFTING
2300040157
P.HARIKA



DRAFTING
2300040279
P.SIVANI



ACADEMICS
2300040064
M. NAVDEEP



ACADEMICS
2300040445
Y. BANDHAVI



LAB AND INSTRUMENTS
2300040038
B. SAI SWARUPA



LAB AND INSTRUMENTS
2300040402
K.B.V.S.ARUN KUMAR



STUDENT ACTIVITIES
2300040266
SUKESHWARAN SATHEESKUMAR



STUDENT ACTIVITIES
2300040094
P.KARTHIK



(DEEMED TO BE UNIVERSITY)



KONERU LAKSHMAIAH EDUCATION FOUNDATION

Green Fields, Vaddeswaram, Guntur-522502,
Andhra Pradesh, India