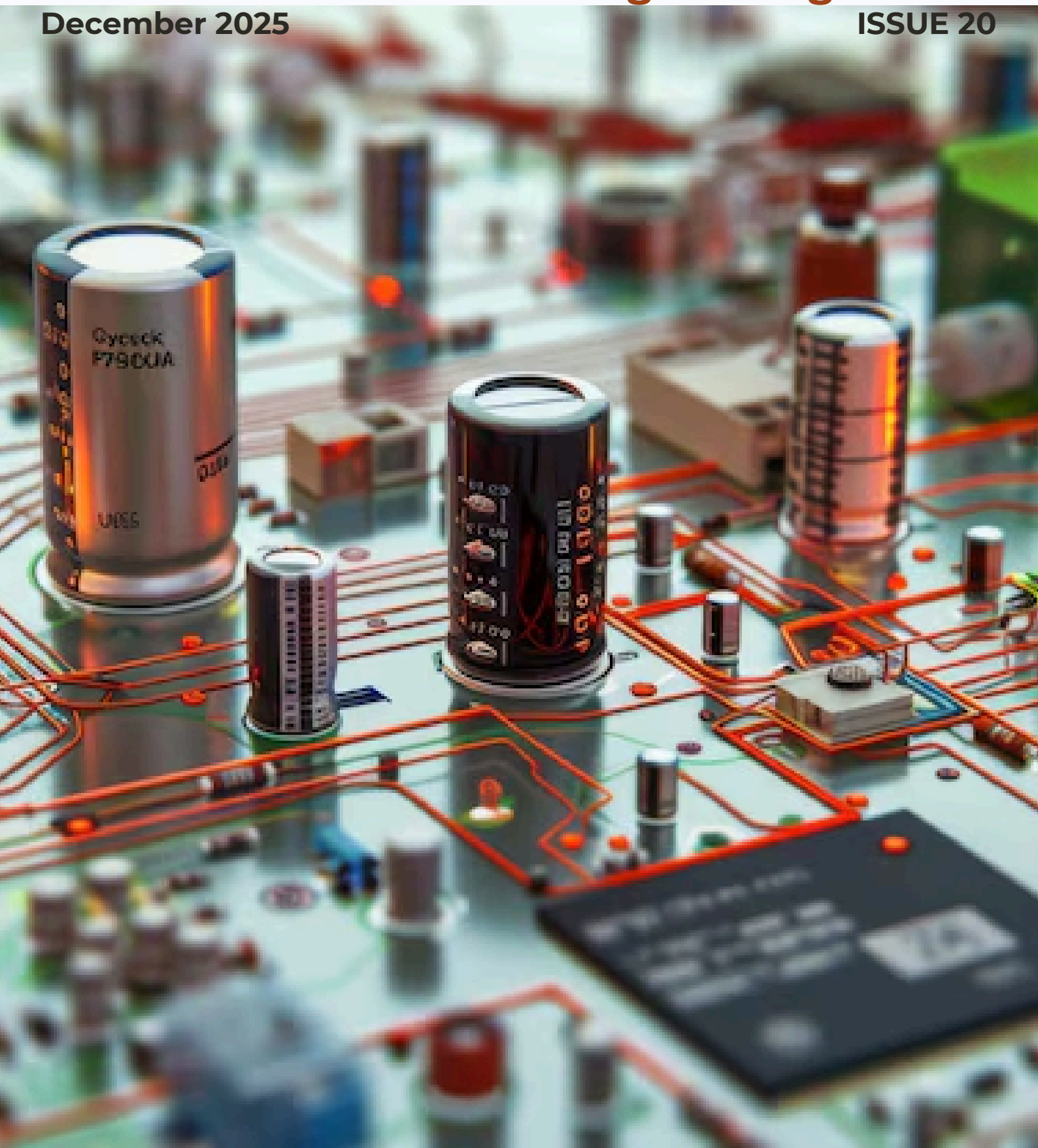
Centre Line Communication

A Half-Yearly NewsLetter Published by the Department of Electronics and Communications, Department of Electronics & Communication Engineering

December 2025 ISSUE 20



VISHNU UNIVERSAL LEARNING
SVECW
ESTD : 2001
Shri Vishnu Engineering College for Women
(Autonomous)
Vishnupur, Bhimavaram, Andhra Pradesh

Vision

"To become leading centre of learning that incorporates the academic excellence and latest trends in research to make a significant contribution to the society in the field of Electronics and Communication Engineering."

Mission

- To educate and empower the women students with state of art knowledge and latest trends in electronics and communication engineering to meet the growing real-world challenges..
- To provide training to the students that bridges the gap between industry and academia.
- To inculcate professional ethics and morals among the students.
- To inspire the students to use technology for societal issues.
- To nurture engineers with a focus on sustainable development, advanced technical skills, and entrepreneurial innovation.

PEOs

- PEO 1: Graduates will have the ability to apply the principles of Electronics and Communication Engineering that provides solutions for real world problems.
- PEO 2: Graduates will be capable of contributing to the advancement of sustainable development and innovation.
- PEO 3: Graduates will have professional ethics and morals to formulate and solve engineering problems that serve the society.
- PEO 4: Graduates will have the zeal and motivation to get involved in life long learning process to become innovators and dynamic leaders.

STUDENT ACHIEVEMENTS

Varshitha Varma Alluri of the ECE department secured the First Prize in the Engineering Category at the PurpleSolvathon, conducted as part of the International Purple Fest 2025. The event emphasized inclusive innovation, accessibility, and empowerment of persons with disabilities, bringing together young innovators from diverse academic backgrounds.

Ms.M.Lakshmi Chandu (24B01A0481) of ECE Department selected for the NXP Women in Tech Program, a prestigious initiative aimed at empowering women engineers and promoting diversity in technology.

Publications

Dr. G. Challa Ram of ECE Department published a paper titled "Synergizing Terahertz Radiation and Surface Plasmons," Terahertz Technology in Microwave and Photonics for Effective Communications, pp. 216–252, Aug. 2025, doi: https://doi.org/10.1201/9781003599111-12

Dr. G. Challa Ram of ECE Department published a paper titled "Design and Experimental Analysis of UCA Antennas for Enhanced SWIPT Using OAM Modes," IEEE Journal on Miniaturization for Air and Space Systems, pp. 1–1, 2025, doi: https://doi.org/10.1109/jmass.2025.3626122.

Dr. G. Challa Ram, Dr. S. Hanumantha Rao, Dr. G. R. L. V. N. Srinivasa Raju , Dr. D. Ramesh Varma , Dr. M. Venkata Subbarao, Dr. D. Girish Kumar , of ECE Department DESIGN AND DEVELOPMENT OF A NOVEL MICROWAVE SENSOR FOR BIOCHEMICAL DETECTION, Proceedings on Engineering Sciences , Vol. 07, No. 3 (2025) 1973-1980, doi: 10.24874/PES07.03A.023"

Dr.M. V. Subbarao, Dr.K. P. Vasavi, K. S. Subhanjili, M. Kanthi, B. Siri and J. Preethi of ECE Department published a paper titled "Design and Analysis of an Enhanced Cnn Accelerator for Deep Learning Applications," 2025 3rd International Conference on Data Science and Network Security (ICDSNS), Tiptur, India, 2025, pp. 1-6, doi: 10.1109/ICDSNS65743.2025.11168681

Dr. M.V. Subba Rao of ECE Department published a paper titled "Design and Simulation on Chip Fractal Inductor for Sub–THz Applications." In: Shetty, N.R., Patnaik, L., Nagaraj, H.C., Venugopal, K.R., Nalini, N. (eds) Advances in Communication and Applications. ERCICAM 2024. Lecture Notes in Electrical Engineering, vol 1300. Springer, Singapore. https://doi.org/10.1007/978-981-96-0165-3_22

Mrs. B. Vaisalini of ECE Department published a paper titled "Design and Implementation of Efficient Full Adder and Vedic Multiplier Using FQR-Based GDI," Lecture Notes in Electrical Engineering, pp. 13–25, 2025, doi: https://doi.org/10.1007/978-981-96-7222-6_2

Dr. G. Challa Ram of ECE Department published a paper titled "Complementary Polygon Slot-Based Tunable Metasurface Perfect Absorber with High Tunability," 2025 IEEE Wireless Antenna and Microwave Symposium (WAMS), Chennai, India, 2025, pp. 1-5, doi: 10.1109/WAMS64402.2025.11159016.

Dr. G. Challa Ram of ECE Department published a paper titled "Design and Analysis of an RCSRR-based Microwave Sensor for Dielectric Characterization of Liquid Analytes," 2025 5th International Conference on Soft Computing for Security Applications (ICSCSA), Salem, India, 2025, pp. 706-709, doi: 10.1109/ICSCSA66339.2025.11170911

Dr. G. Challa Ram of ECE Department published a paper titled "Leaf-Petal Shaped Tunable Metasurface Perfect Absorber with Refractive Index Sensing Capability," 2025 IEEE Wireless Antenna and Microwave Symposium (WAMS), Chennai, India, 2025, pp. 1-5, doi: 10.1109/WAMS64402.2025.11158554

Dr. M. Prema Kumar of ECE Department published a paper titled "Enhanced Retinal Image Analysis Using Machine Learning Based Image Processing," 2025 12th International Conference on Computing for Sustainable Global Development (INDIACom), Delhi, India, 2025, pp. 1-5, doi: 10.23919/INDIACom66777.2025.11115405.

Dr.K.Padmavasavi, Dr. G. Challa Ram of ECE Department published a paper titled "Design and Implementation of Low-Power Binary CNN Architectures on VLSI for UART-Enabled IoT Applications," 2025 5th International Conference on Soft Computing for Security Applications (ICSCSA), Salem, India, 2025, pp. 695-700, doi: 10.1109/ICSCSA66339.2025.11170772

Dr. G. Challa Ram of ECE Department published a paper titled "Frequency-Dependent OAM Mode Generation Using a Series-Feed Proximity Coupled UCA, Microwave and Optical Technology Letters, Volume 67, Issue10, https://doi.org/10.1002/mop.70431

Dr. T. Sudheer Kumar of ECE Department published a paper titled “Enhanced Underwater Connectivity for 5G: GFDM Performance with Pulse Shaping Filters in UWA Channels”, Journal of Engineering Science and Technology Review 18 (3) (2025) 10-1.

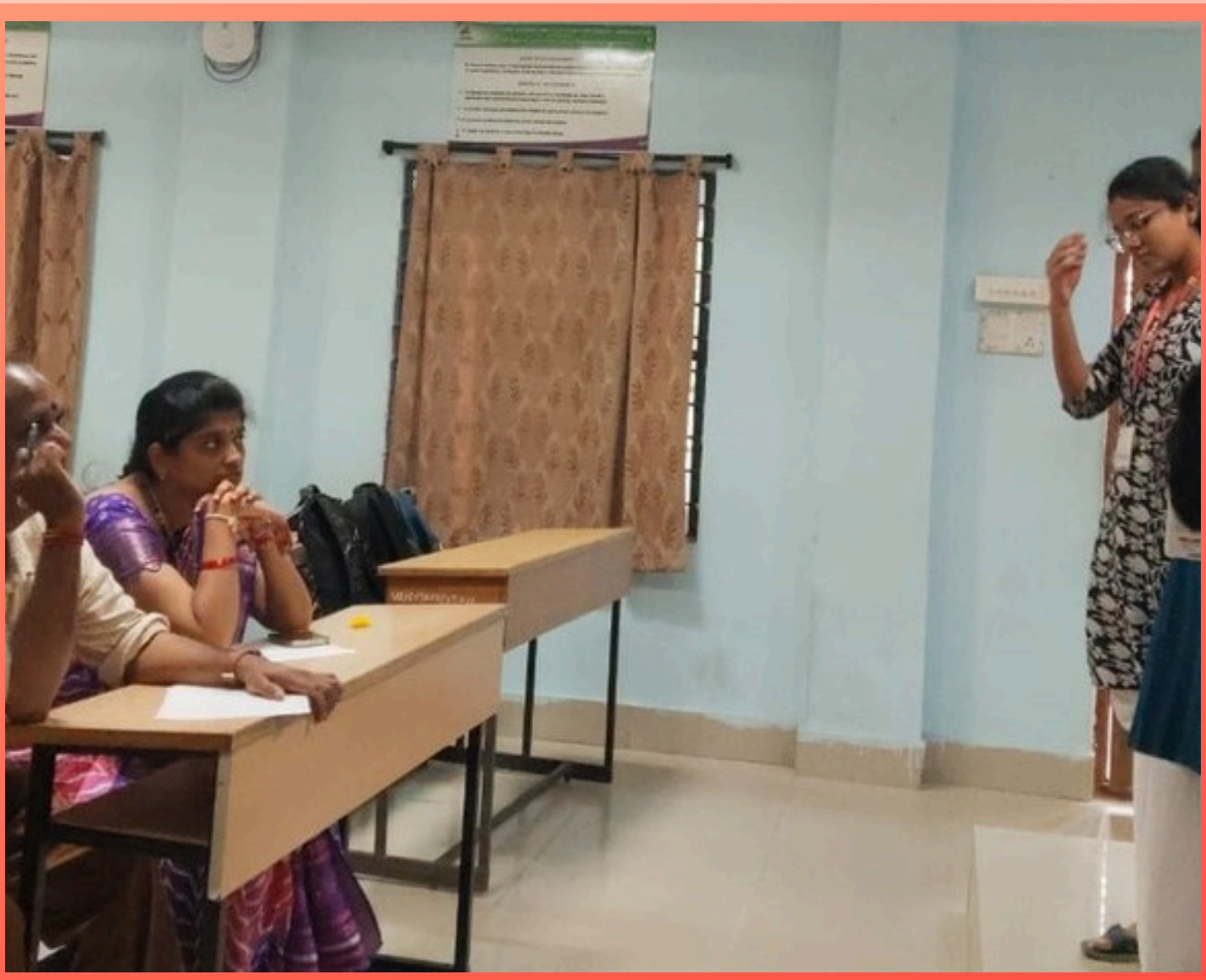
Dr. M. Padmanabha Raju of ECE Department published a paper titled "Denim-Based Wearable Textile Antenna for WiMAX, Telemetry, and X-Band Applications," SSRG International Journal of Electrical and Electronics Engineering, vol. 12, no. 1, pp. 185-191, 2025.

MOU with QNX

Department of ECE has entered a Memorandum of Understanding (MoU) with QNX, a globally recognized leader in embedded system software for Automotive Infotainment Systems and Advanced Driver Assistance Systems (ADAS). The MoU was signed on 8th October 2025 at the QNX Everywhere in Education – India Launch Event, held at Novotel, Vijayawada.

As part of this initiative, QNX, in collaboration with Pi Square Technologies, has launched the “QNX Everywhere in Education for India” program. Pi Square Technologies is responsible for implementing this initiative at select institutions nationwide by integrating QNX’s foundational technologies into the engineering curriculum. SVECW is honoured to be recognized as one of the participating institutions in this prestigious program.

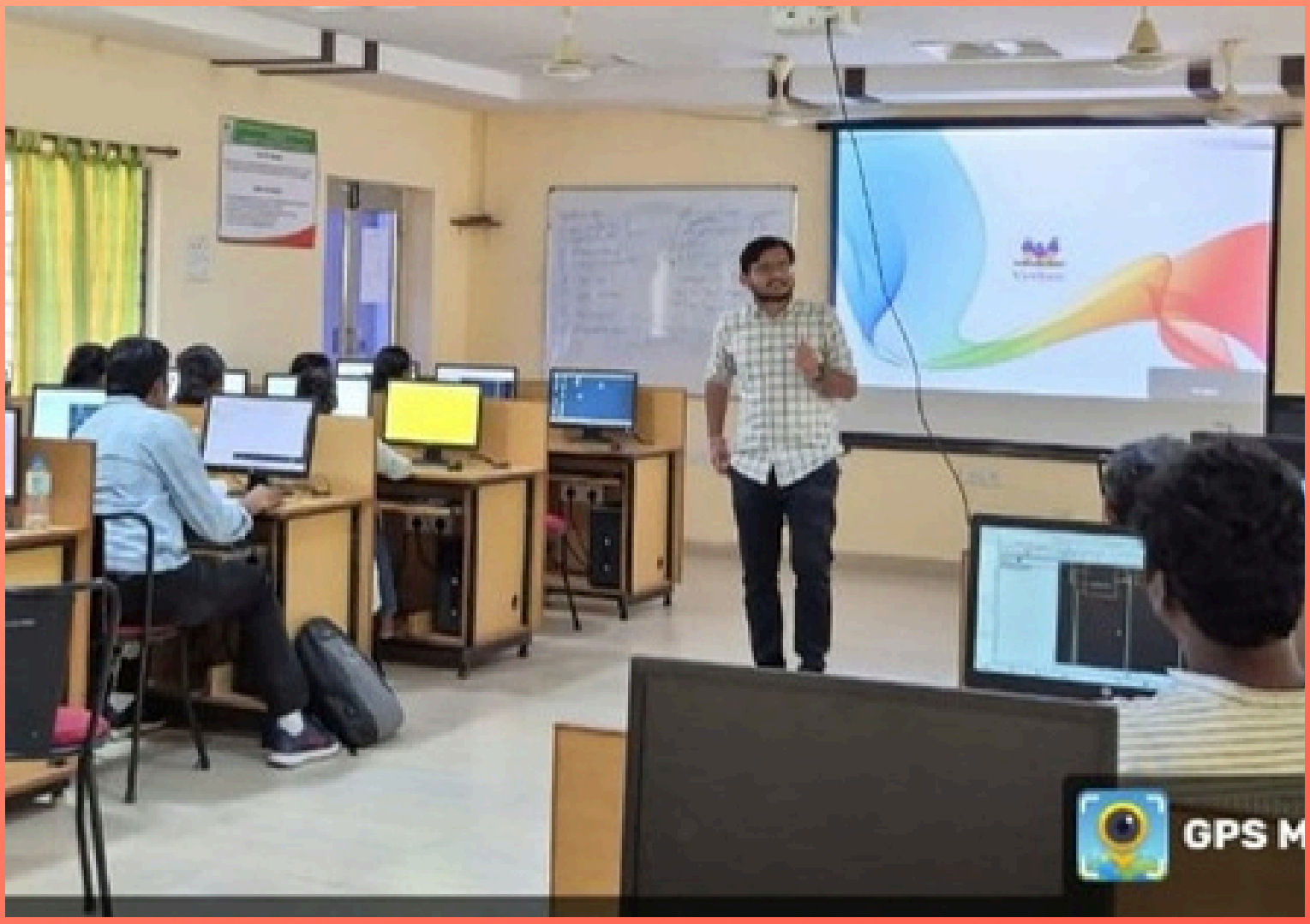
Student Activities



The Department of Electronics and Communication Engineering (ECE) successfully organized “Solve-Athon” on 12th August 2025, witnessing enthusiastic participation from 144 students. The event was designed as a hardware-oriented innovation challenge aimed at promoting experiential learning and encouraging students to apply their theoretical knowledge to real-world engineering problems. Participants worked in teams to conceptualize, design, and develop functional prototypes using technologies related to electronics, Internet of Things (IoT), robotics, and embedded systems.

The primary objective of Solve-Athon was to motivate students to think creatively and develop practical solutions that address pressing societal challenges. The problem statements were aligned with the United Nations Sustainable Development Goals (SDGs), thereby encouraging participants to focus on areas such as sustainable energy, smart agriculture, healthcare technologies, environmental monitoring, and smart infrastructure. Through this initiative, students were encouraged to identify real-life problems and propose technolgy-driven solutions that could contribute to social and community development.

Solve-Athon served as an effective platform for fostering innovation, creativity, and entrepreneurial thinking among students. It also strengthened their ability to work under pressure while delivering practical solutions within a defined timeframe. Overall, the event provided valuable exposure to rapid prototyping, interdisciplinary collaboration, and socially responsible engineering, thereby encouraging students to develop impactful technologies that address community needs.



The Department of Electronics and Communication Engineering (ECE) organized a Faculty Development Program (FDP) on "VLSI Design" from 18th to 23rd August 2025 with the objective of strengthening the technical knowledge and research capabilities of faculty members in the field of Very Large Scale Integration (VLSI). The program was conducted under the guidance of Dr. U. Chandra Mohan and Mr. K. Krishna Sandilya, who served as the coordinators and resource persons for the event.

The FDP focused on providing participants with a comprehensive understanding of modern VLSI design methodologies, design flow, and emerging trends in semiconductor technologies. Various sessions covered important aspects such as digital VLSI design concepts, ASIC design flow, hardware description languages, design verification techniques, and layout considerations. The program also highlighted current research directions in VLSI and their relevance to industrial applications.

Through interactive lectures, technical discussions, and practical demonstrations, the FDP aimed to enhance the participants' technical competence and pedagogical effectiveness. Faculty members were introduced to advanced tools and design practices that are widely used in the semiconductor and embedded systems industries. This exposure helped bridge the gap between academic teaching and industry requirements, enabling educators to incorporate more practical and application-oriented knowledge into their classroom instruction.

Overall, the FDP served as a valuable platform for knowledge sharing, skill enhancement, and professional development, equipping faculty members with updated expertise in VLSI design and strengthening their ability to deliver industry-relevant education to students.

The IETE Students' Forum of the Department of Electronics and Communication Engineering organized the IETE Poster League 2025 (IPL) on 2nd August 2025 at B-Block. The event provided a platform for students to showcase their innovative ideas through creative poster presentations, fostering technical thinking, communication, and presentation skills. A total of 54 posters by 162 students from II & III B.Tech ECE were displayed, reflecting originality and technical insight. The event was inaugurated by Prof. P. Venkatarama Raju (Vice-Principal), Dr. K. Padma Vasavi (HoD, ECE), Mr. Utkarsh Sakella (System Engineer, ALSTOM), and Dr. P. Ravikumar (IETE Coordinator). The posters were evaluated by esteemed faculty members, and the event was marked by enthusiasm, creativity, and innovation.

A proud moment for SVECW! A team of third-year students from the Department of Electronics and Communication Engineering (ECE) — Puja Tripura Vutukuri, Dakshayani Pedasingu, Leena Pasupuleti, and Mirthipati Satya Sreeja — under the mentorship of Dr. M. Venkata Subbarao, brought laurels to the institution by reaching the grand finals of the IEEE YESIST12–2025 Innovation Challenge.

The team stood out as one of the few student groups shortlisted from India to compete at this prestigious global platform. The final round was hosted by the IEEE UKM Student Branch at Universiti Kebangsaan Malaysia on 23rd–24th August 2025.

This achievement reflects the students' innovative spirit, technical excellence, and commitment to making a mark on the international stage.

iACE Activity

From Department of ECE two faculty members Dr. M. Pradeep and Dr. M. V. Ganeswara Rao along with two students, Ms. Bommineni Harsha Vardhini and Ms. Dasu Deekhitha underwent a training program from october 9th to 17th at iACE, Gandhinagar. The program provided valuable technical exposure and hands-on experience in advanced industrial applications, enhancing their practical knowledge and skills.

Hobby Project Expo

Department of ECE under IETE Students' Forum organized a Hobby Project Expo on 23rd October 2025 for III B.Tech ECE students, providing a platform to showcase innovative Arduino-based project prototypes. The expo featured a wide range of projects in automation, IoT, robotics, smart systems, and sensor-based technologies, highlighting students' skills in electronics, coding, and circuit design. Conducted under the guidance of the ECE Department, the event saw active interaction from faculty, including Dr. P. Ravi Kumar, and projects were evaluated on innovation, practical application, and presentation. The expo boosted students' confidence in hardware-based projects and encouraged participation in future technical events.

Assistive Technology Day

Department of ECE organised an Assistive Technology Day on 3rd December 2025 at Smt. B. Seetha Indoor Auditorium in observance of the International Day of Persons with Disabilities. It brought together ATL student teams, mentors, faculty members, beneficiaries, and invited dignitaries to showcase and distribute assistive technology solutions developed by students. The programme aimed to promote inclusion, accessibility, and social responsibility through technology addressing real-life challenges faced by persons with disabilities.The event began with a prayer and lamp lighting, followed by addresses from the dignitaries. Dr. K. Madhu Murthy, Chairman of APSCHE, served as the Chief Guest, while Dr. U. V. Ramana Raju, Managing Trustee of the Centre for Visually Challenged, was the Guest of Honor. The programme was presided over by Sri K. V. Vishnu Raju, Chairman of Sri Vishnu Educational Society. Cultural performances by beneficiary students added vibrancy. The highlight was the distribution of assistive projects such as E-Sticks, tactile maps, medical dispensers, object detection systems, and an assistive bike, reflecting empathy-driven, user-centric student innovation.It successfully combined technical innovation with social responsibility, reinforcing the institution's commitment to inclusive education and community engagement. The event inspired students to continue developing assistive solutions that improve quality of life for persons with disabilities.

Placements Saga

T. Dharmila, IV ECE
23B05A0418, 3.6 LPA

M. Jaya Sri, IV ECE
20B01A04G8, 3.6 LPA

A Anusha, IV ECE
22B01A0401, 3.6 LPA

K. L.Sravani, IV ECE
22B01A0453, 3.6 LPA

K. Jahnavi bai, IV ECE
22B01A0458, 3.6 LPA

Md Rahamathunnisa, IV ECE
22B01A0471, 3.6 LPA

M. Lasya Sri, IV ECE
22B01A0473, 3.6 LPA

N. Rithika, IV ECE
22B01A0480, 3.6 LPA

N. L. Niharika, IV ECE
22B01A0481, 3.6 LPA

P. Renu Sri, IV ECE
22B01A0482, 3.6 LPA

P. S.N. Sreya, IV ECE
22B01A0487, 3.6 LPA

P. Pratyusha, IV ECE
22B01A0492, 3.6 LPA

T.T.S. Phanisri, IV ECE
22B01A04A0, 3.6 LPA

T.T.R.Lakshmi, IV ECE
22B01A04A6, 3.6 LPA

V.S.S.Ramani, IV ECE
22B01A04A8, 3.6 LPA

B. Swathi, IV ECE
22B01A0405, 1.92 LPA

Ch. Ramya Sri, IV ECE
22B01A0412, 1.92 LPA

Ch. Bhargavi, IV ECE
22B01A0414, 1.92 LPA

V.H.S. Lakshmi, IV ECE
22B01A04B4, 3.6 LPA

V.N. Suphani, IV ECE
22B01A04c1, 3.6 LPA

G. S.Sreeja, IV ECE
23B05A0405, 3.6 LPA

M. Mouvya Sree, IV ECE
22B01A0461, 1.92 LPA

N. Ananda Shiny, IV ECE
22B01A0477, 1.92 LPA

P.M. Bharathi, IV ECE
23B05A0414, 1.92 LPA

S. Harika, IV ECE
23B05A0416, 1.92 LPA

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22B01A0495, 1.92 LPA

T. Nikhitha, IV ECE
22B01A04A2, 1.92 LPA

T. Aswitha, IV ECE
23B05A0417, 1.92 LPA

T. Hemalatha, IV ECE
23B05A04A7, 1.92 LPA

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22B01A04B5, 1.92 LPA

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22B01A0446, 1.8 LPA

Ch. L. Sindhuja, IV ECE
22B01A0409, 1.8 LPA

Ch.S. Durga Srinivas, IV ECE
22B01A0410, 1.8 LPA

B. Tiruselvi, IV ECE
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K. Yajnasri, IV ECE
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G. Abhisudha, IV ECE
22B01A0422, 1.8 LPA

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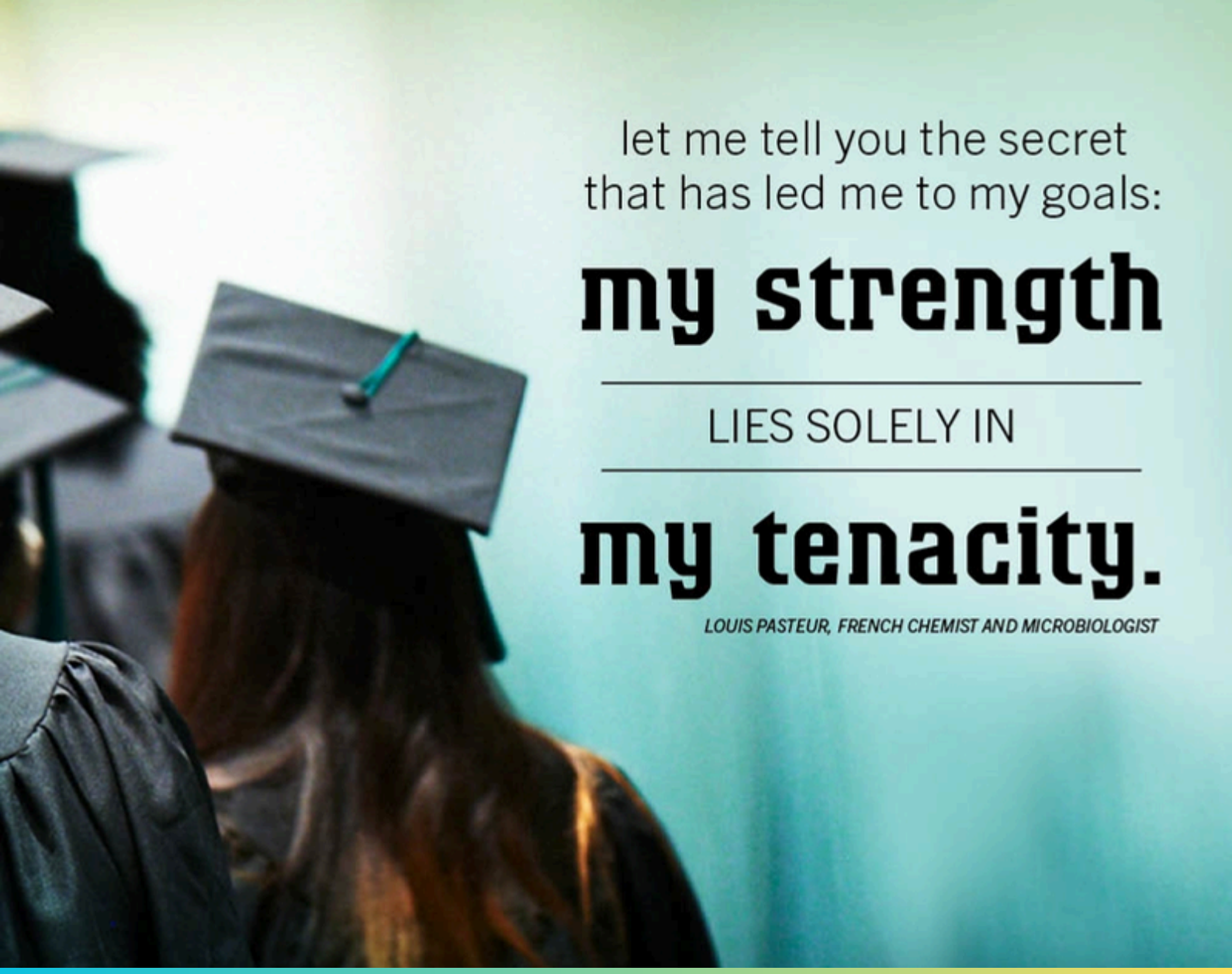
22B01A0439, 1.8 LPA



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