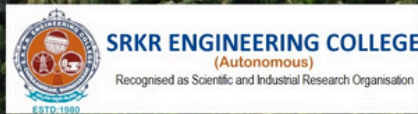


This issue

Brings you awareness about department activities done by staff and students.



ABOUT THE INSTITUTE

Sagi Rama Krishnam Raju Engineering College, established in 1980, is a self-financed academic institution of coeducation striving to provide a high-quality technical education to engineering aspirants. Being one of the premier and well-established technical institutions in the country, it continues to render service to the nation and the world at large with its alumni holding highly prestigious positions and making a substantial contribution. It is an autonomous Institution (UGC Approved) and permanently Affiliated with Jawaharlal Nehru Technological University Kakinada (JNTUK). The college is replete with lush coconut trees spanning across a plot area of 30 acres at China Amiram, Bhimavaram, on the Bhimavaram-Vijayawada state highway and it is also well-connected to all other places by road and rail transport. Over the years, the college has established itself as a premier institution imparting technical education of a very high standard leading to the B. Tech. degrees in 11 branches of engineering, P.G degrees in 6 specializations, and 7 Ph. D. programs. S.R.K.R. Engineering College was established with a mission to develop the institution into a world-class Centre of excellence in the field of technical education that fosters research and essentials of employability and strives for pre-eminence amongst the premier institutions with high commitment to the socio-ecological well-being of the nation.

CRUX 2K25 Hardware Expo

The **CRUX 2K25** event, a national-level hardware project expo, was conducted by the **IETE student forum** in the Electronics and Communication Engineering (E.C.E) Department at Sagi Ramakrishnam Raju Engineering College (SRKR Engineering College). Held on **April 4th**, the event provided a platform for students to showcase their innovative and technical skills. The expo featured over **50 teams and 200 participants**, with projects displayed across five different venues and judged in three levels: Beginners, Intermediate, and Advanced. The event, which ran from 9:30 AM to 6:30 PM, was seamlessly organized under the guidance of **IETE faculty adviser Dr. T.V. Hyma Lakshmi** and **IETE coordinator Dr. K.N.V. Satyanarayana**. The college's **Principal, Dr. K.V. Murali Krishnam Raju**, and the **Director, Dr. M. Jagapathi Raju**, visited all the presentations, appreciating the students' technical skills. Prizes were awarded to the 1st and 2nd place winners in all three levels, with the distribution handled by the **HOD, Dr. N. Udaya Kumar**, and other key faculty and judges. The event was a testament to the collaborative spirit and technical prowess of the students and was considered a success due to the commendable efforts of the organizers.



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TRANCE-2K25 Technical Symposium

The Electronics and Communication Engineering (ECE) Department successfully organized a **National Level Technical Symposium, TRANCE-2k25**, on **February 15, 2025**. The event was designed to be a dynamic platform for students from various engineering disciplines to interact, exchange knowledge, and showcase their innovative ideas—the symposium aimed to foster collaboration, creativity, and technological advancements. **The event's Chief Guest was Sri. Raghuram Voleti, Associate Vice President at MosChip, Bangalore**, delivered a keynote speech on **"Career Opportunities in Semiconductors and AI"**. The symposium featured six main events: Techathon, Rivalry, Art Spark, NexGen, Caliber Clash, and Eloquence. More than **250 students** from various colleges participated in the competitions. The theme of TRANCE-2k25 was **"Right to Vote"**, emphasizing the importance of electoral participation and democratic responsibility. Overall, the event was a resounding success, achieving its goal of fostering technical excellence and societal awareness.

DEPARTMENT VISION

Envision a diverse and stimulating academic research ambience for the student community and shaping them into competent professionals in the field of Electronics and Communication Engineering and to cater to the needs of society with a keen sense of environmental consciousness.



Expert Guest Lectures

On **February 6, 2025**, the Department of Electronics and Communication Engineering at Sagi Ramakrishnam Raju Engineering College hosted an **expert talk on Geospatial AI** by **Prof. Y.N. Krishna Murthy** is an esteemed **Adjunct Professor at IIT Tirupati, a former Director of IIRS & NRSC, and a former Scientific Secretary at ISRO**. He shared his deep expertise on the integration of Geoinformatics, IoT, and AI, explaining its transformative potential in fields like climate monitoring, urban planning, agriculture, and defense. The talk was held at the I-Block venue for **B.Tech third-year students and faculty**. Prof. Murthy also highlighted the vast career opportunities that Geospatial AI offers for young engineers and researchers. The session was immensely enriching, providing valuable insights into emerging technologies and the skills needed to succeed in the evolving tech landscape. His visionary outlook and passion for innovation inspired everyone in attendance.



On March 1, 2025, the Department of Electronics and Communication Engineering at Sagi Ramakrishnam Raju Engineering College organized a guest lecture on "Strategies for Success in ECE & VLSI Domains" for the B.Tech ECE students. The lecture was delivered by **Mr. Dinesh Mallula**, **AMS Application Engineer at Siemens EDA**. Mr. Mallula shared his career journey, emphasizing the importance of continuous learning and adaptability in the electronics industry. He provided valuable insights into emerging trends, career opportunities, and the essential skills required in the **ECE and VLSI sectors**. Key topics covered included **ASIC/FPGA design fundamentals, semiconductor fabrication, and AI-driven chip design**. The interactive session also addressed student questions about higher education, certifications, and job prospects. The event, held in the **Skill Development Lab (T-109)**, was well-received by both students and faculty for its practical approach and industry relevance.

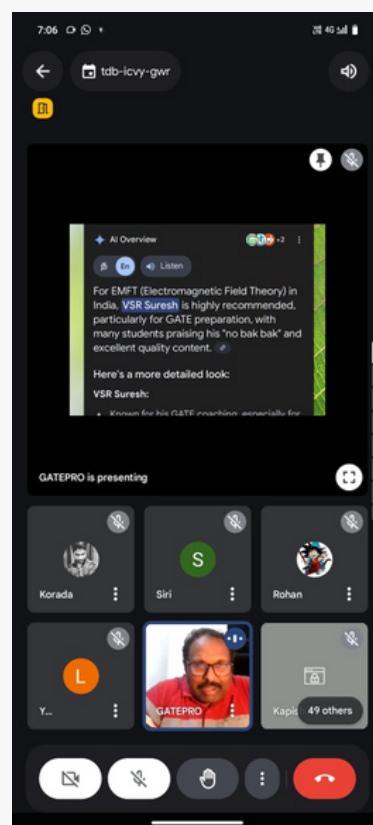


On March 27, 2025, a guest lecture on "GATE and career opportunities" was organized for students and faculty. The event was coordinated by Dr. K.N.V. Satyanarayana, an Assistant Professor in the Department of ECE.

The lecture's main objective was to offer guidance on GATE exam preparation, including strategies and motivational insights from an expert. A total of 80 participants attended the program. The guest speaker, Mr. Suresh VSR, is the Founder and Director of GATEPRO and has 24 years of teaching experience. He has worked with several well-known institutions, including Unacademy (2019–2022), Made Easy Delhi (2010–2019), and ACE Hyderabad (2009–2010). Mr. VSR holds a B.Tech in Electronics and Communication Engineering and an M.Tech in Computer Science. As a GATE trainer, he specializes in Electromagnetics, having delivered over 500 sessions and trained more than 400 students per batch across over 20 batches annually at Made Easy Delhi.

DEPARTMENT MISSION

- To educate the students with the state of the art technologies in Electronics and Communication Engineering to meet the ever growing challenges of the industry.
- To nurture the spirit of innovation and creativity in the faculty and students in order for them to carry out research in collaboration with research organizations and industry
- To provide ethical and value based education that promotes activities pertaining to societal needs.



On April 15, 2025, the Department of Electronics and Communication Engineering (ECE) at S.R.K.R. Engineering College organized a guest lecture titled **"From Aspiration to Realization: A Civil Services Journey"**. The event, held in the Seminar Hall, featured **Mrs. Mudda Suma, an alumna of the college and a current Assistant Commissioner of Police and Personal Security Officer (PSO) to the Vice President of India.** Mrs. Suma shared her inspiring career path, starting from her **B.Tech in ECE at SRKREC** to her various roles in both the private and public sectors, culminating in her selection for the prestigious **Civil Services in 2015**. She provided valuable insights into the **challenges** and **preparation strategies required for civil services**, emphasizing the importance of perseverance and self-discipline. The lecture was highly motivational for the **115 ECE students** who attended. An interactive **Q&A** session followed, where students were able to clarify their doubts and receive guidance on navigating the **UPSC journey**. The event concluded with a vote of thanks and a token of appreciation for the guest.

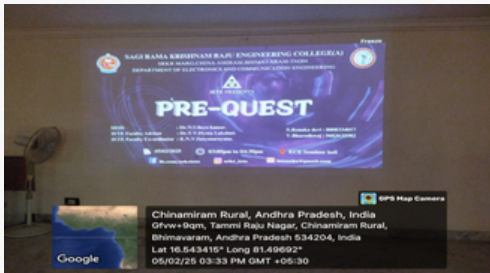


ABOUT OUR DEPARTMENT

The department of ECE was established in the year 1980 with an intake of 35 which was subsequently raised to 240 over a period of time. M. Tech course in Communication Systems was started in 2006. The department is presently offering 4-year B. Tech program in ECE, 2-year M. Tech in Communication Systems and Ph.D. program. The department has highly qualified, experienced and dedicated staff members. The department has dedicated technical and non-teaching staff members. The department has good infrastructure facilities. The department was accredited four times by National Board of Accreditation (NBA). The department has student chapters of professional bodies like IETE and college level ISTE, which conduct various student technical activities. Students of ECE participate in National level technical paper and hardware competitions being organized at various other colleges and some of them are awarded with prizes. They have been obtaining good scores in GRE, TOEFL and CAT. Students are placed in companies like TCS, Polaris, CTS, IBM, Infosys, Texas Instruments, BSNL, BEL, ISRO and DRDO. ECE department has been identified as research center by JNT University. The research center provides required facilities for carrying out research work for scholars. The department is associated with organizations like DRDO, NSTL, BEL, ISRO, BSNL, NRSA and RTTC. The department has MOUs with DS Reddy Consultancy, ETI Lab Pvt. Ltd., Salcit Technologies, Hyderabad and TCS for collaborative work and faculty improvement programs. Faculty published and presented about 512 research papers in technical journals and conferences.

The PRE-QUEST and QUEST Events

The **PRE-QUEST** event was held on **February 5th** to prepare students for the main competition. The session provided knowledge on creating effective PowerPoint presentations following **IEEE standards**, including proper font size and slide ratios. It also included a demonstration of **effective presentation techniques**, covering body language, gestures, and maintaining a confident presence. Some students even had the opportunity to **practice their presentation skills and clarify their doubts**. According to student feedback, the session was both effective and valuable.



The **main event, QUEST**, took place on **February 7th** in two separate venues, T-402 and T-406. Its purpose was to allow students to share their knowledge in diverse fields and showcase their **presentation skills**. Judges scored each presentation based on creativity, presentation skills, time management, and communication skills. Prizes were awarded to the 1st and 2nd place winners in both venues. **The Head of the Department, Dr. N. Udaya Kumar**, and other faculty and judges played a key role in distributing the prizes. The event was considered a success due to the organizers' commendable efforts.



Creating Awareness on Gender-Inclusive Workplace

The **Women Empowerment Cell** of S.R.K.R. Engineering College, in collaboration with the **Department of Electronics and Communication Engineering (ECE)**, conducted a **"Just a Minute" (JAM) activity** on **March 19, 2025**. The event, held in Room No: **T-402**, focused on the topic. The activity was organized by **Mrs. G. Prathima, an Assistant Professor in the ECE Department**. **Dr. G. Naga Raju, an Associate Professor of the ECE Department**, was the resource person for the event. A total of **62 B.Tech ECE students** participated. The JAM session, a useful activity for learners, helped them improve fluency, accuracy, and time management skills. It also taught participants how to concisely express their ideas, a valuable skill for job interviews.



Elocution Competition

On **March 11, 2025**, the **Women Empowerment Cell** of S.R.K.R. Engineering College, in collaboration with the **Department of Electronics and Communication Engineering (ECE)**, organized an elocution competition. The event took place at **9:30 AM** in **Room T-302**. The competition's theme was **"Gender Equality and Mental Health"**. An elocution competition is a public speaking contest where participants deliver speeches to demonstrate their **communication skills** and ability to convey a message effectively. This event was coordinated by **Mrs. G. Prathima, an Assistant Professor in the ECE Department**. **Mrs. S. Swathi, also an Assistant Professor in the ECE Department**, was the resource person. A total of **54 third- and fourth-year B.Tech ECE students** participated in the competition.



Community Engagement and Skill Enhancement

The ECE Department at Sagi Rama Krishnam Raju Engineering College, in collaboration with the **IETE Student Forum**, conducted an outreach program to provide practical exposure to young students. On **February 11, 2025**, students from **JLB High School's 9th and 10th grades** visited the **ECE department labs**. During the visit, they received an introduction to **ECE and its career prospects**, toured labs such as the **Circuit Design Lab and Microprocessor Lab**, and watched live demonstrations of **electronic circuits, microcontroller programming, and student projects**. The event aimed to bridge theoretical knowledge with hands-on experience, and it successfully sparked interest in engineering as a potential career for the school students. Following this, an **8-day internship program** called **"Foundations in Electronics"** was held from **April 11 to April 21, 2025**, for **eight 10th-grade girls from Shri JLB MPL Girl High School**. Coordinated by **Dr. K.N.V. Satyanarayana**, the internship provided the participants with opportunities to engage in various electronics-related projects and activities, offering a valuable learning and development experience.



Faculty Doctoral Achievements

Mrs. S. Swathi, an Assistant Professor in the ECE Department, earned her Ph.D. in Electronics and Communication Engineering from Nirwan University, Jaipur. Her thesis, titled "**DESIGN AND IMPLEMENTATION OF EFFICIENT ARITHMETIC LOGIC UNIT USING FINFET TECHNOLOGY**," focused on designing a high-performance, energy-efficient Arithmetic Logic Unit (ALU) using advanced FinFET and Graphene Nano-ribbon FET (GnrFET) technologies. The research introduced several innovative modules, including the **Dynamic Path Auto-Configurable Joint Adder-Subtractor (DPAJAS)**, which significantly reduced total energy consumption and improved delay by about 18%. The final Nano-ALU achieved an **average 15% improvement in performance metrics** compared to traditional ALUs and is well-suited for applications in digital signal processing and high-performance computing.



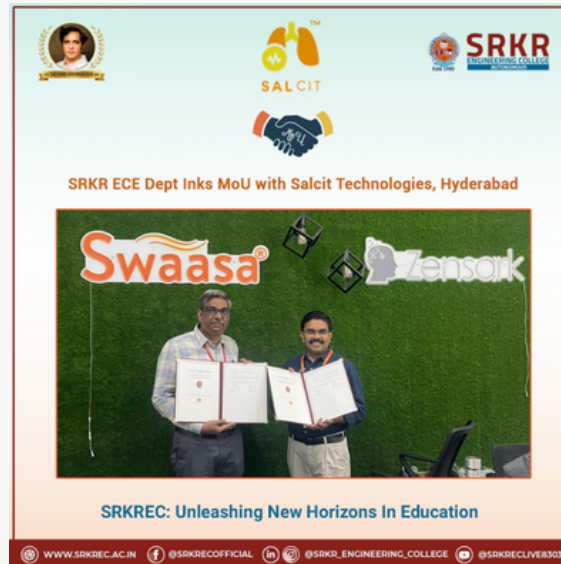
Mr. K. N. V. Satyanarayana, also an Assistant Professor in the ECE Department, received his Ph.D. in Electronics and Communication Engineering from **Annamalai University, Tamil Nadu**. His thesis, "**An Empirical analysis of Emotional behaviour through Machine Learning Algorithms**," investigated the effects of meditation on undergraduate students' **mental maturity and cerebral burden**. The research found that meditation techniques promoting intense focus can lead to greater happiness and contentment. The study's proposed approaches for emotion classification demonstrated strong performance, with the **PCA-based ANN model achieving a high classification accuracy of 97.36%**. The findings highlight the importance of effective emotion management for a stable academic and interpersonal life.



Strategic MoUs for Collaboration

ECE Department Collaborates with SALCIT Technologies:

The Department of Electronics and Communication Engineering (ECE) at Sagi Ramakrishnam Raju Engineering College (SRKREC) signed a **Memorandum of Understanding (MoU) with SALCIT Technologies Pvt. Ltd. from Hyderabad on August 12, 2024**. The objective of the MoU is to **study and propose pre-processing techniques to address variations in audio (cough) signals recorded by different microphones**. The event was attended by **the Principal, Dr. K.V. Murali Krishnam Raju, the ECE HOD, Dr. N. Udaya Kumar; and the Director of SALCIT, Sri. S.V.N. Narayana Rao**. The collaboration aims to foster research and innovation in the field of audio signal processing.



SRKREC ECE Department Inks MoU with Vector India:

The Department of Electronics and Communication Engineering at Sagi Krishnam Raju Engineering College (SRKREC) signed a **Memorandum of Understanding (MoU) with Vector India Private Limited on February 26, 2025**. The purpose of this collaboration is to facilitate an **embedded systems training program** for interested and eligible SRKREC students at the Vector India training center. The **MoU aims to strengthen academic, industrial, and research interactions**, as well as to enhance the educational excellence and skill development of both students and faculty. The partnership is expected to improve the industry-academia interface, bridge the gap between academic learning and industry expectations, and lead to the development of innovative solutions with a global impact. This collaboration will also provide students and faculty with **enhanced exposure to international technology standards and industry-oriented skill development**. The signatories for the **MoU** were **Dr. K.V. Murali Krishnam Raju, Principal of SRKREC**, and **Dr. N. Udaya Kumar, Head of the ECE Department**, representing the college. From Vector India, the signatories were **Jala Mercy Malathi, Senior Manager, and Yarramalla Sunil Kumar, Senior Faculty**. The college will act as a facilitator, and student enrollment in the training program is voluntary.



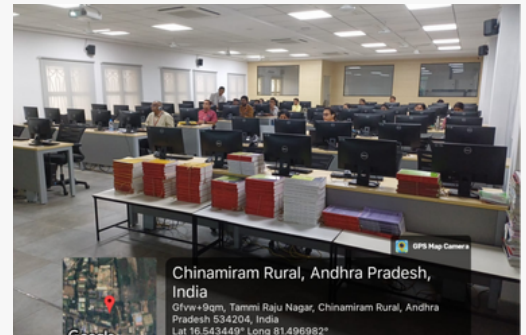
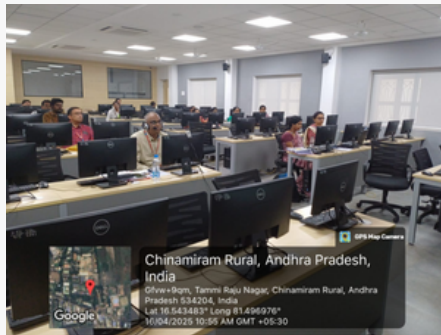
SRKREC ECE Department and Everly Technologies LLC:

The Department of Electronics and Communication Engineering (ECE) at Sagi Ramakrishnam Raju Engineering College (SRKREC) has entered into an international collaboration by signing a **Memorandum of Understanding (MoU) with Everly Technologies LLC, based in Dallas, Texas, USA**. The MoU was signed on **April 7, 2025, to enhance academic, industrial, and research collaborations in the field of ECE**. The partnership aims to enhance educational excellence and professional growth for students and faculty through shared initiatives and resources. The expected outcomes include an improved industry-academia interface, the development of innovative solutions with global impact, and bridging the gap between academic learning and industry expectations. Students and faculty will **benefit from enhanced exposure to international technology standards and industry-oriented skill development, and students will have opportunities to work on real-time projects with joint guidance for research and project work**. The signatories for the MoU were **Dr. K.V. Murali Krishnam Raju, Principal of SRKREC, and Dr. Sujan Kasani, Director of Everly Technologies LLC**



ECE Department Research Centre Online Inspection

On **April 16, 2025**, the **ECE Department's Research Centre** underwent an online inspection by a committee that included **Prof. M. Sailaja and Prof. N. Balaji**. The inspection was conducted to evaluate the center's research quality, infrastructure, and overall effectiveness. The primary objective was to ensure the center meets institutional and regulatory standards and to receive renewal for the **2025-26 and 2026-27 academic years**. The attendees for the inspection included the **ECE HOD, Dr. N. Udaya Kumar**, and other ECE faculty members.



Alumni & Industry Insights

Industry-Institute Interaction in Aviation and Technology:

Industry-Institute Interaction in Aviation and Technology On **March 24, 2025**, **Dr. N. Udaya Kumar**, Head of the **ECE Department**, visited the **Air Traffic Control (ATC) at Begumpet Airport** and the **ATC Complex & Radar Navigational System at Shamshabad Airport**. The visit, supported by **ECE alumnus Mr. Rambabu**, aimed to explore advancements in aviation communication systems, radar technology, and emerging innovations in AI and VLSI. During the visit, **Dr. Udaya Kumar** gained insights into the latest developments in **air traffic management, radar-based navigation, and real-time communication systems**. He also observed the real-time monitoring of aircraft and understood the role of automation and radar in ensuring safe aircraft movement. The visit also included discussions with industry professionals and alumni on **potential collaborations, including internship opportunities for students, organizing workshops, and collaborative research projects**. This interaction successfully strengthened industry-academia relations and opened avenues for future collaborations, aligning technical education with industry demands and enhancing practical learning for students.



Distinguished Alumni Visits to the ECE Department:

The Department of Electronics and Communication Engineering (ECE) at Sagi Ramakrishnam Raju Engineering College (SRKREC) had the honor of **welcoming several distinguished alumni**. These visits strengthened the industry-academia relationship and inspired current students. On **January 31, 2025**, three alumni from the **1991-1995 batch** visited, including **Ms. Pavani Parupudi, Senior Program Manager at HCL America; Ms. Uma Anitha Kottali, Head of Indirect Procurement at AMD, USA; and Ms. Anantha Cherukuri, Payroll Analyst in Australia**. They shared their career journeys and professional insights with students and faculty. The first batch of ECE, Civil, and Mechanical Engineering **alumni from 1980-1984** held a **40-year reunion**, celebrating **four decades of professional success**. They met with the Head of the ECE Department and presented a souvenir. Later, on **February 16, 2025**, **Mrs. K. Aparna (1998-2001 batch)**, who is an **Associate Professor and Head of the ECE Department at JNTU Kanigiri**, visited to discuss her experiences in academic leadership. On **April 5, 2025**, **Mrs. Y. Satya (2016-2020 batch)**, currently a **student at IIM Mumbai**, offered valuable guidance on pursuing higher education and interdisciplinary careers. Finally, on **April 7, 2025**, **Mr. Pranay Kashyap (2018-2022 batch)**, a **Technical Analyst at Gainsight**, shared insights from the software industry, emphasizing the importance of technical skill development and adaptability. These visits have significantly enriched the academic environment and served as a great source of inspiration for students.

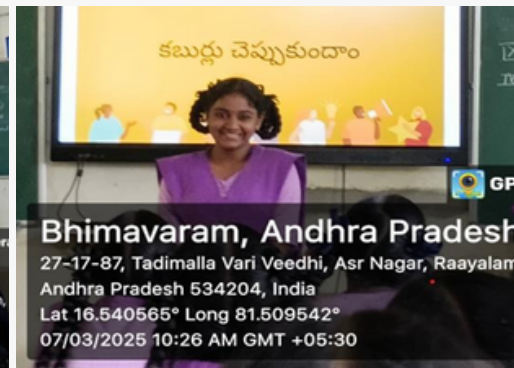


Course on CCNA: Introduction to Networks Course

The Department of Electronics and Communication Engineering (ECE) organized a **CCNA: Introduction to Networks course for its 3/4 B.Tech students**. The course was conducted through the **Cisco Netacad platform** and ran from **October 16, 2024, to March 9, 2025**. A total of **90** students were certified upon completion of the course. The coordinators for the program were **Dr. P. Krishna Kanth Varma** from the ECE Department and **Mr. K.D.V.P.K. Varma** from the CSE Department. After completing the course, students gained the ability to configure switches, routers, and end devices, create IPv4 and IPv6 addressing schemes, and troubleshoot network connectivity. The course also covered how physical and data link layer protocols support Ethernet, how the upper layers of the OSI model support network applications, and how to configure a small network with security best practices

The Bhartiya Bhasha Utsav: Celebrating Linguistic Diversity

The **Bhartiya Bhasha Utsav**, or **Indian Language Festival**, was held on **March 7, 2025**, at **Jhansi Lakshmi Bai Municipal Girls High School**. The event was organized by **NEP SAARTHIS** and **faculty members of SRKR College**, to celebrate India's linguistic diversity and foster an appreciation for mother tongues. Faculty coordinators **Dr. K.N.V. Satyanarayana** and **Sri Y.S.S. Sriramam**, along with **Dr. N. Uday Kumar**, **Head of the Department of Electronics and Communication**, actively guided the students throughout the event. The festival featured several interactive activities, including **Tongue Twisters**, **discussions on traditional proverbs called Samitalu**, and a **creative session on Telugu Memes**. Other activities included students enacting movie dialogues, a **one-minute Telugu speaking challenge**, and a session of traditional **Telugu riddles known as Podupu Kadal**. The event successfully reinforced the importance of regional languages and instilled a sense of pride and curiosity about linguistic heritage among the students.



Faculty Development Program (FDP) on "Custom and Semi-Custom IC Design using Cadence Tools."

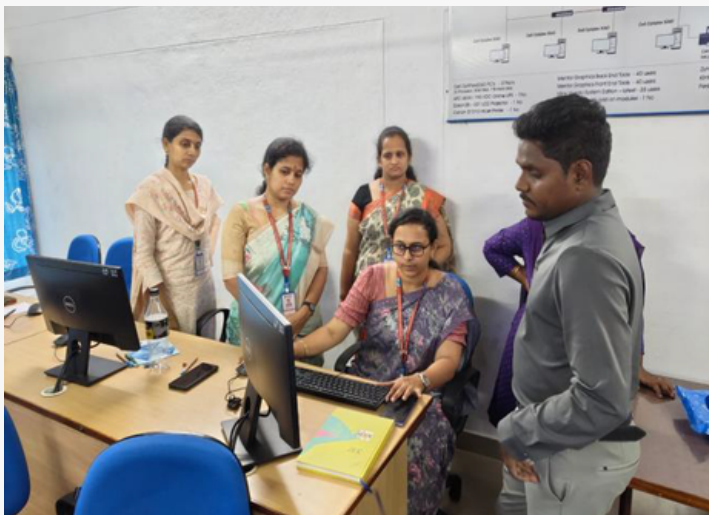
The Department of Electronics and Communication Engineering at SRKR Engineering College is hosting a five-day offline Faculty Development Program (FDP) from June 16th to 20th, 2025, on "Custom and Semi-Custom IC Design using Cadence Tools." Organized in collaboration with the Electronics & ICT Academy, NIT Warangal, and JNTU Kakinada, and sponsored by MeitY, Government of India, the program aims to provide fundamental knowledge and practical exposure to IC design flows using industry-standard Cadence EDA tools. A total of 40 faculty members and research scholars from various academic institutions are participating.

Program Highlights

- **Day 1:** Covered full custom IC design flow, schematic capture, testbench creation, functional simulation, layout design, and physical verification using Cadence tools.
- **Day 2:** Focused on FinFET library models, schematic capture, and layout design, with hands-on sessions led by Mr. Sudheer Kumar Katta from Entuple Technologies.
- **Day 3:** Explored semi-custom IC design flow, functional verification using INCISIVE, RTL synthesis, and implementation using INNOVUS, led by Mr. Pulivarthi Rajendra.
- **Day 4:** Covered static timing analysis, analog and mixed-signal design flow, and functional simulation using Spectre.
- **Day 5:** Discussed functional verification using Conformal LEC Tool, pre and post-synthesis analysis, and design for testability (DFT) using Modus tool.

Key Takeaways

The program provides hands-on experience with Cadence tools, enhancing participants' skills in custom and semi-custom IC design. The sessions were coordinated by esteemed faculty members, including Dr. N. Balaji, Dr. B. Leela Kumari, and Dr. N. Udaya Kumar, ensuring high-quality content and seamless execution.





i3-Institute Industry Interaction 2025 by MosChip

The Department of ECE faculty member Mr. Y. S. S. Sriramam, Assistant Professor, attended the “i3 – Institute Industry Interaction 2025” training program organized by MosChip Academy of Silicon Systems and Technologies Pvt. Ltd. (MAST), held from 2nd to 13th June 2025 in Hyderabad. The initiative aimed to bridge the gap between academia and industry by providing exposure to advanced VLSI design methodologies, EDA tools (Cadence), and industrial workflows. The two-week program included hands-on sessions on front-end and back-end design, digital and analog layout, verification strategies, RTL design, and DFT concepts. Eminent professionals such as Sri DVR Murthy, Sri M. Prasad, Sri Anand Shankar Moghe, Dr. V. Nagarajan, Sri Aravind, Mrs. Ramalakshmi, Mrs. Deepa Reddy, and Mrs. B. Sarala conducted interactive sessions covering topics from semiconductor design trends to SoC and ASIC physical design flows. Participants gained practical exposure through live demonstrations, lab sessions, and mini-projects, enhancing their understanding of semiconductor technologies, chip design, and verification processes. The program concluded with a valedictory session and certificate distribution, marking a successful collaboration between academia and industry in fostering faculty competence in VLSI and semiconductor design.



“If your actions inspire others to dream more, learn more, do more and become more, you are a leader.” – John Quincy Adams