

2024-25/ Volume 24/ Issue 2

January to June 2025

**KSR** College of  
Engineering

AN AUTONOMOUS INSTITUTION

NAAC  
ACCREDITED **A++**NBA  
ACCREDITED  
PROGRAMMES**25**  
YEARS  
2001 – 2026  
Celebrating  
Academic Excellence

# DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

## CIRCUIT CHRONICLES-2024

## NEWSLETTER

**ACADEMIC YEAR 2024-2025**

**K.S.R. COLLEGE OF ENGINEERING****Vission**

To become a globally renowned institution in Engineering and Management, committed to providing holistic education that fosters research, innovation and sustainable development.

**Mission**

<b>IM1</b>	Deliver value-based quality education through modern pedagogy and experiential learning.
<b>IM2</b>	Enrich Engineering and Managerial Skills through cutting-edge laboratories to meet evolving global demands.
<b>IM3</b>	Empower research and innovation by integrating collaboration, social responsibility and commitment to sustainable development.

**DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING****Vision**

To be a globally recognized department in Electronics and Communication Engineering, fostering innovation, research and sustainable technological solutions through holistic education.

**Mission**

<b>DM1</b>	Impart value-based quality education through experiential learning and modern pedagogy.
<b>DM2</b>	Enrich professional skills and technical competence by equipping students with state-of-the-art laboratories to meet industry readiness.
<b>DM3</b>	Nurture Innovation and Research towards sustainable solutions and societal well-being.



# NEWS LETTER

## CHAIRMAN MESSAGE



**Shri. R. Srinivasan, BBM., MISTE.,  
Chairman, KSR Educational Institutions**

Education is the foundation of a brighter tomorrow, and this Newsletter reflects the vibrant spirit of our learners. May it continue to inspire creativity, excellence, and lifelong curiosity in every reader. In the recent times, the role of KSRCE is to carry out proactive research and development activities to make the students as well as faculty member's intellectuals, which are very challenging and demanding. It is of great significance that this magazine is going to deliberate upon It will definitely explore new areas of practice and enhancing quality of professional services.

I am sure this magazine will be a milestone in ensuring the highest standards in this profession. I wish the organizers the very best in this and all their other endeavors.

I am eagerly looking forward to seeing you and enjoying this newsletter in KSRCE Campus.

**With best wishes  
Mr. R. SRINIVASAN  
Chairman  
KSR Educational Institutions**



# NEWSLETTER

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## DEAN MESSAGE



**Dr. M. VENKATESAN, M.E., Ph.D.,**

**Dean**

It is with immense pride and joy that I present to you the latest edition of our ECE Department Newsletter a vibrant reflection of the creativity, talent, and achievements of our students and staff.

Over the past two decade, KSRCE has served the young engineering aspirants of our nation by providing state-of-art facilities and well knowledgeable faculty members.

The Institute has held high the lighted torch of teaching and learning and has not failed in its duty in the hour of need. The students imbibe qualities of an excellent teacher and researcher to set academic standards. The last couple of years marked several milestones in the history of KSRCE.

Technology is constantly evolving, and staying up to date with the latest trends can help us stay competitive in the job market, give you access to new features and capabilities.

I congratulate the editorial team, contributors, and all those who have worked tirelessly to bring this edition to life. Let this newsletter serve not only as a record of our accomplishments but also as an inspiration for the journeys yet to come.

**With best wishes**  
**Dr. M. Venkatesan**  
**Dean**

## PRINICIPAL MESSAGE



**Dr. P. MEENAKSHI DEVI, M.E., Ph.D.,**  
**Principal**

My heartiest welcome to all the young budding Engineers who have joined in "K.S.R. College of Engineering". With the help of highly qualified and dedicated staff members, we will be moulding the students to the required shape which will make them employable. The composite unit of Students, Parents, and Society is our customer. The K.S.R. College of Engineering will strive hard to provide customer satisfaction.

In our college, we give top priority to discipline. A series of tests and examinations will be conducted to achieve good performance in the university examinations. An effective Training and Placement (T&P) cell is formed to provide placement to all our students. Importance will be given to extra-curricular and co-curricular activities also.

Excellent infrastructure facilities and good learning atmosphere is an added advantage of this great Institute. I hope all the students admitted here will enjoy the four years of study. Let us all work hard to produce the most competent scientists, engineers, Entrepreneurs, Managers and researchers through Quality Education.

**With best wishes**  
**Dr. P. MEENAKSHI DEVI**  
**PRINCIPAL**

## HOD MESSAGE



**Dr.C.GOWRI SHANKAR M.E.,Ph.D**  
**HEAD OF THE DEPARTMENT**

The HOD of ECE takes great honour in publishing this newsletter, which highlights our recent activities including seminars, workshops, publications, student projects, and collaborations reflecting our continuous pursuit of excellence and impact. We also take this opportunity to express our gratitude to our alumni and industry partners, whose support and engagement continue to enrich our journey

**With best wishes**  
**Dr.C.GOWRI SHANKAR M.E.,Ph.D**  
**HEAD OF THE DEPARTMENT**

## EDITORIALS

- K.S.R. College of Engineering is on its 25<sup>th</sup> year. Being the pioneers in Engineering Education, our chairman, Thiru. R. Srinivasan, always wanted the Institution to be a model institution and working towards it.
- In this year of release, the editorial board cordially records its gratitude and indebtedness to the management for these novel practices.
- With congratulation to the outgoing engineers, we wish the students for a successful ensuring academic year. I expect more cooperation and commitment from the students which will eventually lead them for a better future.



## EDITORIALBOARD

### CHIEF PATRON

Thiru. R. SRINIVASAN  
(Chairman)

### PATRONS

Shri K. S. SACHIN  
(Vice Chairman)  
Dr. M. VENKATESAN  
(Dean)  
Dr. P. MEENAKSHI DEVI  
(Principal)

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Prof. Dr.C.GOWRI SHANKAR , HOD/ ECE



### ASSOCIATE EDITOR

Mrs, P.Usha, AP/ ECE  
Mrs.S.Dhavamani, AP /Maths

### STUDENT EDITOR

THARUN PRAJIN C R (III YEAR)  
DEEPAN KUMAR V (II YEAR)  
PAVITHRA T (III YEAR)

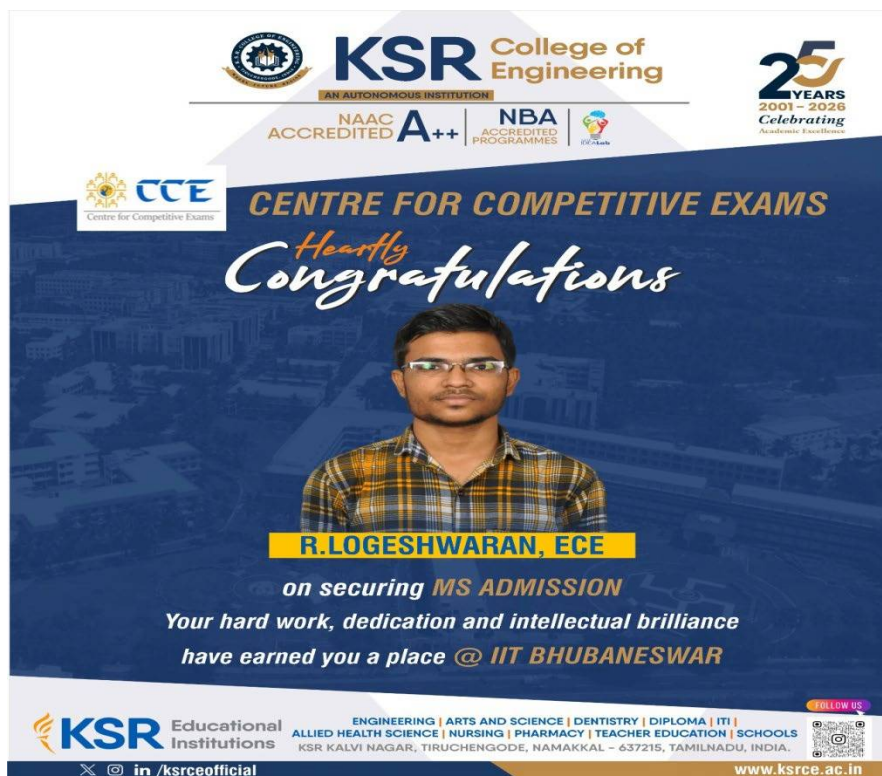
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## STUDENTS CORNER



We are delighted to share that Logeshwaran, a distinguished student of the ECE Department, on securing MS Admission your hard work ,dedication and intellectual brilliance have earned you a place @IIT Bhubaneswar.



We are delighted to share that **Srinivasan V**, a distinguished student of the ECE Department, has been successfully placed at **VTS Enterprises India Private Limited** with an impressive annual package of **₹12 Lakhs**.



**FACULTY SPOTLIGHT****STEP - Best Supporting Department Award**

The ECE Department has been honored with the "*Best Supporting Department*" award by the STEP Association on 15 May 2025 . Dr. C. Gowrisankar, Professor and Head of the Department, proudly received the award on behalf of the department.

**STEP - Innovative Educator Award**

Dr. P. Thilagavathi, Associate Professor of the ECE Department, was honored with the "*Innovative Educator Award*" by the STEP Association on 15 May 2025, in recognition of her exceptional contributions to teaching excellence.

**FACULTY SPOTLIGHT****Society for Technocracy Engineering Professionals (STEP 2025)**

Mr. M. Jothimani  
Faculty Leader Award



Mr. M. Udhayakumar  
Faculty Leader Award



Mrs. V. Sindhuja  
Faculty Leader Award



Ms. M. Jeyabharathi  
Faculty Leader Award

Our faculty members Mr. M. Jothimani, Mr. M. Udhayakumar, Mrs. V. Sindhuja, and Ms. M. Jeyabharathi were honored with the "*Faculty Leader Award*" at an event organized by STEP on 17 MAY 2025, acknowledging their exemplary leadership and dedication.

**Best Faculty Award**

Our ECE Department faculty members Mr. B. Vinothkumar, Dr. S. Jayachitra, Mrs. M. Dharani, and Mrs. D. Gowthami were honored with the "*Best Faculty Award*" by The Institution of Engineers (India) in collaboration with Adhiyamaan College of Engineering, Hosur, on April 4th, 2025, in recognition of their academic excellence and dedication.

**FACULTY SPOTLIGHT****Thalaivi Awards 2025**

Dr. P. Thilagavathi, Dr. R. Poornima, and Ms. B. Latha from the ECE Department received the prestigious “*Shero of the Year*” award in the Working Women category, on March 15th, 2025, at Dindigul, Tamil Nadu, in recognition of their inspiring professional excellence.



## NPTEL ACHIEVERS

NPTEL DISCIPLINE STAR

Ms.B.Latha, Assistant Professor, received a *Certificate of Appreciation* as an *NPTEL Discipline Star* for the Jan–Apr 2025 session, recognizing his commitment to continuous learning and academic excellence.



The ECE Department has showcased exceptional dedication and skill in NPTEL certification courses. Their outstanding performance during January to April 2025 reflects their commitment to academic excellence.

## PATENT

IoT based Real-Time Air Quality Detector


Our ECE department faculty, Dr. R. Poornima, has been granted a Design Patent for the IoT based Real-Time Air Quality Detector on 09/01/2025. Hearty congratulations to her on this innovative achievement

IoT based Mathematical & Statistical Prediction of Neural Disorder and Memory Mapping Technique in Health Care Management

Application Details	
APPLICATION NUMBER	202441102003
APPLICATION TYPE	ORDINARY APPLICATION
DATE OF FILING	23/12/2024
APPLICANT NAME	1. Dr.P.Meenakshi Devi 2. Kavitha R 3. Raja Sekar P 4. Sowmiya R 5. Dr K P Uvarajan 6. Dr. Anguraj S 7. Sethupathi S 8. Dr. P. Shanmugasundaram
TITLE OF INVENTION	IoT based Mathematical & statistical prediction of neural disorder and memory mapping technique in health care management
FIELD OF INVENTION	COMPUTER SCIENCE
E-MAIL (As Per Record)	senanipindia@gmail.com
ADDITIONAL-EMAIL (As Per Record)	editorsipofficial@gmail.com
E-MAIL (UPDATED Online)	
PRIORITY DATE	
REQUEST FOR EXAMINATION DATE	--
PUBLICATION DATE (U/S 11A)	10/01/2025

Dr. K. P. Uvarajan, faculty of the ECE Department, has published a patent titled "IoT based Mathematical & Statistical Prediction of Neural Disorder and Memory Mapping Technique in Health Care Management" on January 10, 2025. The department proudly recognizes his innovative contribution to IoT-driven healthcare advancements.

<b>PUBICATIONS</b>
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S.N O	TITLE OF THE JOURNAL	FACULTY PHOTO	SCI/SCOU PS
1.	R Eswaramoorthi, Matta Venkata Pullarao, Priyadarsini K, "Hierarchical Auto-Associative Polynomial Convolutional Neural Network With Gorilla Troops Optimization for an Effective Millimeter-Wave Path Loss Modeling in 5G-IoT Mobile Communication System, Volume:38/4, <a href="https://doi.org/10.1002/dac.6109">https://doi.org/10.1002/dac.6109</a> ,2025.		SCI
2.	A Velliangiri, Jayaraj Velusamy, R Leena Rose, Task replication based energy management using random-weighted privacy-preserving distributed algorithm for real-time embedded system,Volume:167, <a href="https://doi.org/10.1016/j.future.2025.107708">https://doi.org/10.1016/j.future.2025.107708</a> , 2025.		SCI
3.	Sankarakutti Palanichamy Manikandan, Sandeep Reddy Narani, Sakthivel Karthikeyan, Nagarajan Mohankumar, Deep learning for skin melanoma classification using dermoscopic images in different colorspace. <a href="http://doi.org/10.11591/ijece.v15i1.pp319-327">http://doi.org/10.11591/ijece.v15i1.pp319-327</a> , 2025.		SCI Scopus
4.	A.Yoganathan,: P.S.Periasamy,: C. Devipriya,:P. Anitha, Accurate Identification of Leaf Disease using Yolov4 Algorithm, Volume:32/9, <a href="https://doi.org/10.52783/cana.v32.4558">https://doi.org/10.52783/cana.v32.4558</a> , 2025.		SCI Scopus
5.	P Thilagavathi, S Senthil Kumar, D Gowthami, A Sridevi, All pass transformation based variable digital filter design using low power approximate floating point adder and low power compressor based approximate multiplier,Volume:102, <a href="https://doi.org/10.1016/j.vlsi.2025.102344">https://doi.org/10.1016/j.vlsi.2025.102344</a> , 2025.		SCI Scopus
6.	Sowmiya R, M. Pravin Kumar, T. M. Sathish Kumar, Rasika P;M. Poornima Devi;S. Priya Dharshini, "Artificial Intelligence-Driven Protein Folding System Employing Alpha Fold". "2025 International Conference on Multi-Agent Systems for Collaborative Intelligence (ICMSCI)", Date Added to IEEE Xplore: 27 February 2025, DOI: 10.1109/ICMSCI62561.2025.10894449, ISBN:979-8-3315-0983-5		Scopus



7.	S. Senthil Kumar, P. Usha, P. Balakrishnan, V. Kamatchi Kannan, M. Manjula, M. Vijayakumar "Deep Learning Driven Engineering Innovations: Advancing Sustainable Green Building and Smart Infrastructure for a Resilient Future" 2024 First International Conference for Women in Computing (InCoWoCo) Date Added to IEEE Xplore: 27 February 2025, DOI: 10.1109/InCoWoCo64194.2024.		Scopus
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### Student Project Grant at TNSCT



**KSR College of Engineering**  
AN AUTONOMOUS INSTITUTION

NAAC ACCREDITED **A++** | NBA ACCREDITED PROGRAMMES

**25 YEARS**  
2001 - 2026  
Celebrating Academic Excellence

*Hearty Congratulations*

**For Receiving Student Project Grant**

**₹ 67,500**

**STUDENT PROJECT SCHEME 2024-2025**

**TAMIL NADU STATE COUNCIL FOR SCIENCE AND TECHNOLOGY**

**KSR Educational Institutions**

ENGINEERING | ARTS AND SCIENCE | DENTISTRY | DIPLOMA | ITI |  
ALLIED HEALTH SCIENCE | NURSING | PHARMACY | TEACHER EDUCATION | SCHOOLS  
KSR KALVI NAGAR, TIRUCHENGODE, NAMAKKAL - 637215, TAMILNADU, INDIA.

**TNSCT**

**KSR** Educational Institutions

**www.ksrce.ac.in**

We are proud to share that two teams from our department have been selected for the Tamil Nadu State Technical Textbook Competition (TNSTTC). The first team is led by Dr. R. Nandakumar, Vice Principal, along with project students Gopi J, Naveena E, Pradeepika M, and Varsha T. The second team is guided by Mrs. Jeyabharathi, Associate Professor of Mathematics, with students Dhinakaran G and Chandru V. Hearty congratulations to both teams on this commendable achievement

**DEPARTMENT ACTIVITIES****EVENTS ORGANIZED BY THE FACULTY****INNOVATIVE STARTUP IDEAS**

The Department of ECE, in association with the Institution's Innovation Council and Centre for Sustainable Development Goals, conducted a session on "Innovative Startup Ideas" on January 25, 2025, at Pearl Hall.

The event empowered students with entrepreneurial insights and encouraged them to transform creative ideas into viable startups.





## Design and Debug of Embedded Systems-Innovation Perspective

The Department of Electronics and Communication Engineering, in association with the Institution's Innovation Council, successfully organized a session on "Design and Debug of Embedded Systems – An Innovation Perspective" on January 27, 2025, at Pearl Hall.

The event provided valuable insights into innovative approaches for designing and debugging embedded systems, enriching students' understanding of real-world applications.



DEPARTMENT OF  
ELECTRONICS AND COMMUNICATION ENGINEERING,

INSTITUTION'S INNOVATION COUNCIL

In association with  
**Centre for Sustainable Development Goals**

Organizes  
Seminar on

**DESIGN AND  
DEBUG OF EMBEDDED  
SYSTEMS - INNOVATION  
PERSPECTIVE**

**Mr. HAREESH "ice" JANAKIRAMAN**  
Director,  
Embedded Guru LLC,  
Texas, USA.

ON MONDAY  
**JANUARY 27, 2025**

STARTS AT  
**10.00 AM**

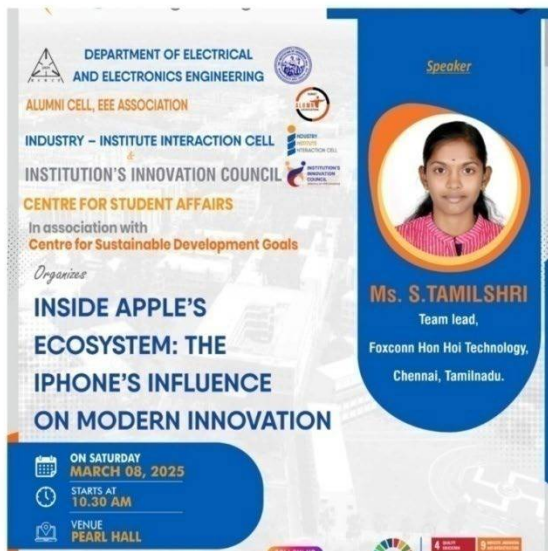


## The iPhone's Influence on Modern Innovation.

. The Department of Electronics and Communication Engineering at K.S.R. College of Engineering is organizing an expert talk titled "Inside Apple's Ecosystem: The iPhone's Influence on Modern Innovation."

Ms. S. Tamilshri, Team Lead at Foxconn Hon Hai Technology, Chennai, will deliver the keynote address on March 8, 2025, at 10:30 AM in Pearl Hall.

The session aims to provide valuable insights into Apple's technological ecosystem and its impact on contemporary innovations

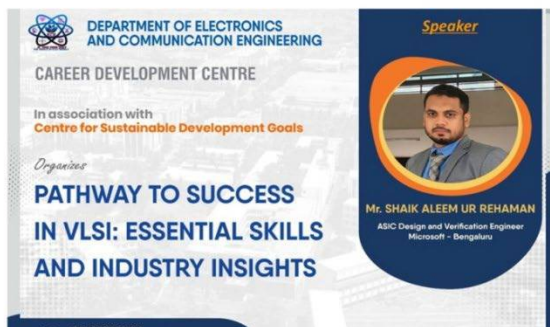




## **Pathway to success in VLSI: Essential skills and industry insights**

The Department of ECE in collaboration with the Career Development Centre (CDC) organized a seminar for the II and III year ECE students on March 22, 2025, at Pearl Hall, Dr. C.V.Raman Block. The session featured Mr. Shaik Aleem Ur Rehman, ASIC Design and Verification Engineer at Microsoft, Bengaluru, who delivered an inspiring talk on "Pathway to Success in VLSI – Essential Skills and Industry Insights."

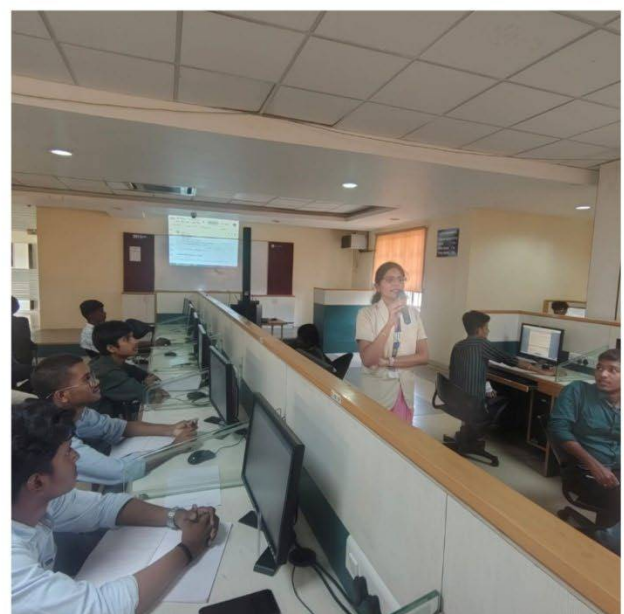
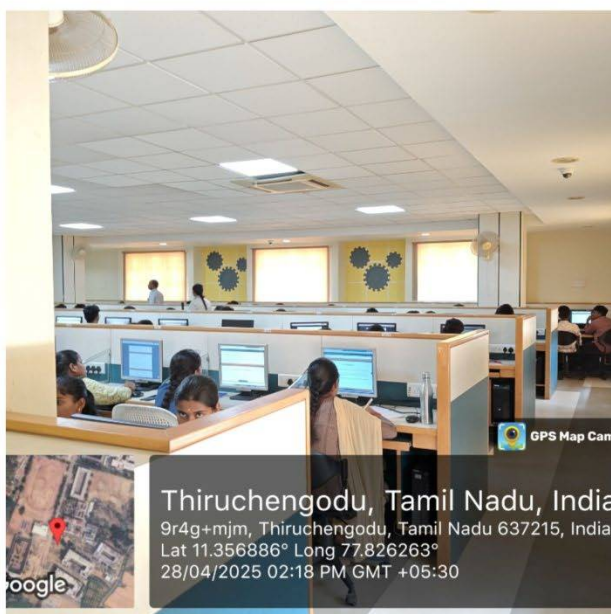
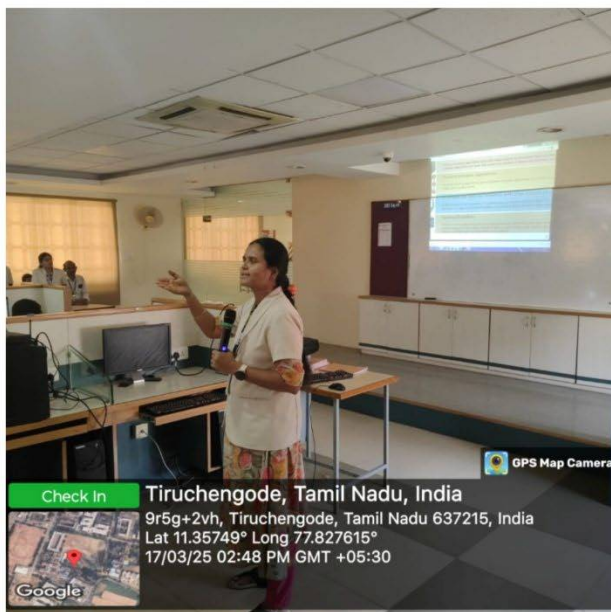
"The seminar provided valuable guidance on career opportunities and skill development in the VLSI domain, enriching students with real-world industry perspectives"



## Generative AI for System-Level Design and Simulation

The Department of Electronics and Communication Engineering, in collaboration with the Institution's Innovation Council and the Centre for Sustainable Development Goals, organized a two-day workshop on "Generative AI for System-Level Design and Simulation" on April 28 and 29, 2025 at CADD LAB

The workshop aimed to equip participants with advanced knowledge and practical skills in applying Generative AI techniques to system-level design and simulation, fostering innovation and technical expertise.





**INDUSTRY CONNECT**

The Industrial visit allowed students to see how theoretical concepts are applied in practice, enhancing their understanding of hardware engineering principles. It highlighted sustainable practices in the hardware industry, such as optimized resource usage. Additionally, the visit emphasized the importance of staying updated with industry trends, emerging technologies, and best practices, fostering a mindset of lifelong learning and continuous professional development.



**INDUSTRIAL VISIT**  
**Kerala Electrical and Allied**  
**Engineering Company**  
**on 09.05.2025**

**SKILL SPRINT**

Ms. Pradeepika M of the ECE Department has been honoured with the "Best Outgoing Student" and "Best Academic Performer" awards for the academic year 2024–2025 on annual day celebration. The department proudly applauds her outstanding achievements and wishes her continued success ahead



Ms. K. Vijayasree of III Year ECE has been awarded the "Best Academic Performer" for her exceptional academic achievements in the year 2024–2025 on annual day celebration. The Department of Electronics and Communication Engineering proudly congratulates her and wishes continued success.





Mr. Senthil Nathan S of the ECE Department received the Founder's Day Reward for his remarkable performance in dance. The department proudly appreciates his talent and contribution to cultural excellence.



**MEITHIRU PRAKASH B  
IV/ECE, BEST POSTER  
PRESENTATION  
WINNER IN THE  
AIR SUBMIT  
on 01.04.2025**



**DHANUJA R IV/ECE  
BEST PROJECT WINNER  
IN THE AIR SUBMIT  
on 01.04.2025**

**THIYAGARAJAR  
COLLEGE MADURAI  
OPEN LEVEL STATE  
TOURNAMENT WINNER  
on 11.03.2025**



**RANJITH KUMAR B  
III/ECE  
BEST PAPER AWARD  
ORGANIZED BY STEP on  
16.03.2025**



## COMMUNITY CONNECT

### School Engagement Activities – Career Guidance Program for Higher Education at Govt. Boys Hr. Sec. School, Namagiripettai

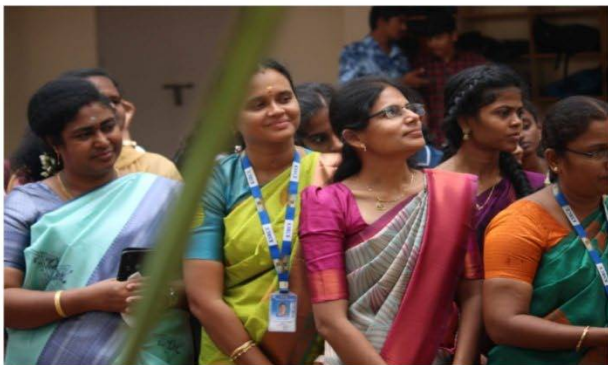


A Career Guidance Program for Higher Studies within school engagement activities aims to empower students to make informed decisions about their educational and professional futures. By providing comprehensive information on various academic pathways, the program helps students align their interests and strengths with suitable higher education opportunities.



**CELEBRATION GLIMPSES****Pongal Festival**

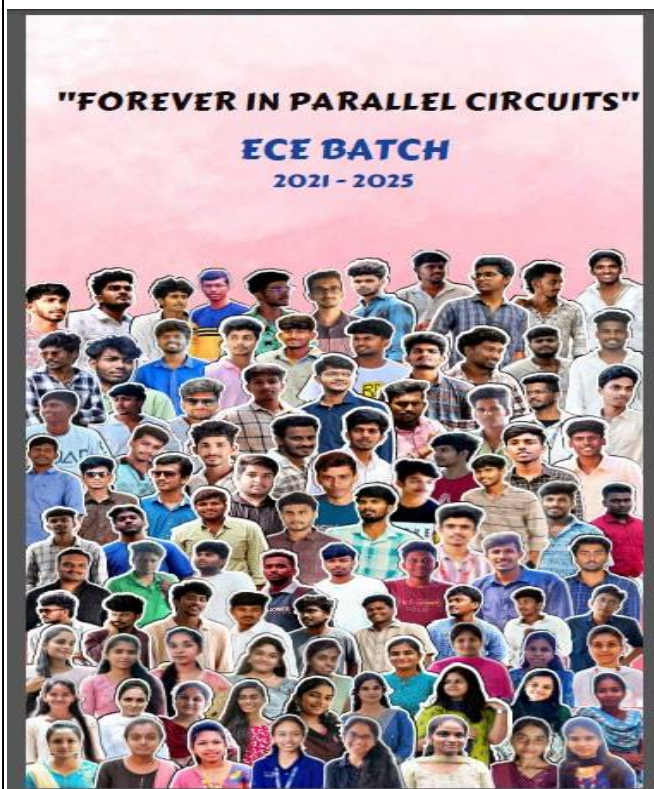
The Department of Electronics and Communication Engineering at K.S.R. College of Engineering joyfully celebrated Pongal in January 2025 with great enthusiasm and traditional fervor. The event showcased the cultural richness of Tamil heritage through vibrant rangoli designs, traditional games, folk dance performances, and a special Pongal dish prepared and shared by students and faculty. The celebration created a festive atmosphere, strengthening unity and cultural values within the campus.





## Farewell Day function

The Department of Electronics and Communication Engineering at K.S.R. College of Engineering organized a memorable **Farewell Function** on **April 9, 2025**, to bid an emotional goodbye to the outgoing batch. The event was filled with heartfelt speeches, cultural performances, fun games, and warm memories shared by students and faculty. The celebration marked a bittersweet moment, cherishing the journey of the graduating students while wishing them success in their future endeavors.





## The Galaxy of K.S.R. Educational Institutions

**K.S.Rangasamy college of Technology**  
**K.S.R. Institute of Dental Science and Research**  
**K.S.R.College of Engineering**  
**K.S.R.Institute For Engineering and Technology**  
**K.S.Rangasamy College of Arts & Science**  
**K.S.Rangasamy College of Arts & Science for Women**  
**K.S.Rangasamy Institute of Technology**  
**K.S.R. Polytechnic College**

**K.S.R. College of Education**  
**K.S.R. Matriculation Higher Secondary School**  
**K.S.R. Industrial Training School**  
**K.S.R. Akhsara Academy**  
**Rajammal Rangasamy I.T.I.**  
**Rajammal Rangasamy Teacher Training Institute**  
**Rajammal Rangasamy Higher Secondary School**  
**Avvai K.S.R. Matriculation School**

**SINCE 1984**



**K.S.R. COLLEGE OF ENGINEERING**