

S.R.K.R ENGINEERING COLLEGE

(Autonomous)

EEE CHRONICLE



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PROFESSOR'S MESSAGE



Electrical and Electronics Engineering is a rapidly growing field focused on electricity, electronics, and electromagnetism. The B.Tech and M.Tech programs offer a balanced curriculum that covers core EEE topics and emerging engineering challenges. Through guest lectures, seminars, and workshops, the department connects students and faculty with industry professionals and researchers.

Graduates can pursue careers in R&D, design, systems analysis, control, and testing. I am elated about the release of the department's 6th technical magazine issue for the 2024-2025 academic year—a resourceful tool that fosters technical skills and knowledge. I commend the efforts of the EEE faculty, staff, and Association in supporting student growth and I wish you all the best for all your future endeavors.

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VISION & MISSION

VISION:

To become a center of excellence in electrical engineering that fosters learning, research and innovation with social relevance.

MISSION:

- To build an environment that cultivates employability skills with human values and topics.
- To establish a collaborative interaction with industry for laboratory development, research and innovation.
- To create an ambience that encourages active participation of students and staff in the pursuits towards excellence.



EDITOR: Smt.Bh.Sudha Rani M.Tech (Ph.D), Assistant Professor, Dept of EEE.

Glimpses of Excellence

SANKALP

Sankalp2k24 was held on Feb 2,2024- A National level techno-cultural symposium was a vibrant fusion of technology and ethos, bringing together brilliant minds and creative spirits. With diverse events ranging from robotics to brainstorming sessions, it showcased the best of innovation and excitement of students.



Building on the momentum of innovation, Sankalp2k24 also provided a platform for mentorship and learning through keynote speeches by industry leaders and technical experts.



APOORVA

Apoorva'24 workshop was inaugurated in DLC Lab on April 6, 2024. For this workshop Dr. V. Vijaya Rama Raju served as a chief guest. This two-day event is designed to offer valuable insights and guidance from alumni to current students which was coordinated by Prof. N. Srinivasu and Dr. G.H.K. Varma.



The workshop featured prominent speakers including Dr. V. Vijaya Rama Raju (1998), Dr. A. Ravindranath (2006), Ravi Teja Reddy (2010), Sri P.V.N. Mohan Krishna (2011), Grandhi Anjan Kumar (2013), and Velagapalli Cripsi Shania (2017). These experts addressed topics such as job opportunities for EEE graduates, power electronics, VLSI, research opportunities, public sector jobs, and software career paths. This workshop is partially sponsored by SRKREC Alumni Association. Almost 50 students participated and gained valuable knowledge and insights.



HACKATHON



Our students have brought great pride to the department with their outstanding achievements in two prestigious events. At the IEEE 2024 Project Expo (SASI-ITE '24) held from February 23-25, 2024, our team stood out as one of 75 finalists selected from nearly 1,000 teams. Additionally, two groundbreaking projects—A Cyber-Physical Solution for a Battery Swapping Station (₹10.7 Lakhs) and A Grid Interactive Bi-Directional Charger (₹9.45 Lakhs)—received funding under the MSME Innovative Scheme. These projects, mentored by Mr. Kurella Pavan Kumar, showcase the students' creativity, dedication, and potential to advance technology.

AICTE WORKSHOP

The AICTE IDEA Lab at SRKR Engineering College, Bhimavaram, successfully organized a workshop on “Android App Development for Industrial Applications” from 18th March to 31st March 2024.

SRKR ENGINEERING COLLEGE
SAGI RAMA KRISHNAM RAJU ENGINEERING COLLEGE
AUTONOMOUS
SRKR Marg, Chinna Amiram, Bhimavaram
W.G.Dt, Andhra Pradesh

AICTE IDEA Lab Organizing

Android App Development for Industrial Applications
Schedule : 18-03-2024 to 31-03-2024
Time: 4.45 pm - 7 pm Venue : AICTE IDEALab

Registration Link : <https://forms.gle/9Kd5koOyET8GMUHS>

Resource Persons :
Smart India Hackathon 2022 Finalists & Interns in DST funded Project in Collaboration with IIT Delhi
1. V. Kishore Kumar 2. U. satya Sai - 4/4 EEE
3. Kurella Pavan Kumar - Asst Professor - Dept.of EEE - AICTE IDEALab Coordinator

Dr. N. G. K. Murthy
Head - Technology Centre
Coordinator - AICTE IDEALAB

Dr. M. Jagapathi Raju
Director
Chief Mentor - AICTE IDEALAB

Dr.K.V.Murali Krishnam Raju
Principal
SRKREC

The sessions were held daily from 4:45 PM to 7:00 PM at the AICTE IDEA Lab. The workshop provided hands-on training in Android app development, focusing on industrial applications. It was conducted by Smart India Hackathon 2022 Finalists from our department and DST-funded project interns in collaboration with IIT Delhi. The event was a great success, offering participants valuable skills in Android app development and boosting their practical expertise.

PROJECT EXPO

The Department of Electrical and Electronics Engineering showcased its annual Project Expo on April 23, 2024, at the Electrical Machines Laboratory, highlighting a diverse array of 51 projects in 2023_2024 academic year. This year event featured 40 Curriculum Projects (CP), 1 Non-Curriculum Project (NCP), and 10 Internship projects, reflecting the innovative spirit of the students





Among the impressive exhibits were an Electric Bicycle, Wireless Energy Transfer demonstrations, advanced Converter Designs, solutions for aquaculture challenges, and smart transportation systems. Open to first, second, third and final-year students, the expo provided an opportunity for interactive learning and exploration. The projects were reviewed by Dr. P. Krishna Kanth Varma and Sri. K.N.V. Satyanarayana from the ECE Department, SRKREC, who evaluated the top three entries in both CP and NCP categories, celebrating the exceptional contributions of the students.



The training provided practical insights into executing real-time projects, with students also visiting the IDEA LAB to explore ongoing prize-winning projects. Sri B. Chanti, Project Associate at Idea Lab, SRKREC, led the session guiding the students through the project activities and sharing valuable expertise on project supervision.

VALUE ADDED COURSES

Department of EEE introduced a value-added course titled “Designing Web Pages using HTML, CSS, and JavaScript – Hands-on,” in collaboration with the SRKREC Alumni Association and it was coordinated by our faculty Mr. A. Hemanth Kumar Raju. The course is designed to equip students with practical skills for creating interactive web pages and it was concluded on Feb 09, 2024. The course covered HTML for content structure, CSS for styling, and JavaScript for dynamic features. Dr.N.K.Kameswara Rao, Professor from the Computer Science and Engineering department served as the resource person. He shared his extensive expertise in web technologies. The training combined theoretical insights with hands-on experience, aimed at enhancing students' employability and preparing them for the modern digital landscape.

TRAINING PROGRAMS

On February 17, 2024, a training session was conducted by Sadhana Project Laboratory in partnership with the IDEA LAB at SRKREC to equip students with the latest skills in real-time project development. Thirty-three students participated in this hands-on session, which covered essential aspects such as idea pitching, project formulation, prototype development, and demonstration.



PLACEMENTS



The Training and Placement Cell of SRKR Engineering College proudly announced the placement success of EEE students for 2023-2024 secured with 154 offers. Top recruiters include Accenture (3), TCS (11), Vem Technologies (5), Cape Electric (17), and Voltech Engineers Pvt. Ltd (36). Companies like Rinex Technologies, TCE, and Boson Motors also offered opportunities. Our department achieved an impressive 77.9% placement rate. Congratulations to the selected students and thanks to the recruiters for their trust in our talent.

INTERNSHIPS

Internships form a crucial part of academic and professional development, bridging the gap between theoretical knowledge and practical application. This report highlights the exceptional efforts and

R20 IVth B.TECH

| S.NO | Program Name | No.of students under taking internships | organization | duration | Stipend |
|------|--------------|---|---|--------------------------|-----------------------|
| 1 | Internship | 28 | EDUSKILLS | January to March2024 | ..... |
| 2 | Internship | 125 | SKILL DZIRE | January to March2024 | ..... |
| 3 | Internship | 27 | IIDT(International Institute of Digital Technologies) | January to March2024 | |
| 4 | Internship | 6 | CISCO NETWORKING ACADEMY | January to March2024 | |
| 5 | Internship | 3 | Data Valley | January to March2024 | |
| 6 | Internship | 17 | 360 DIGI TMG | January to March2024 | |
| 7 | Internship | 2 | BIST Technologies Pvt.Ltd | January to March2024 | |
| 8 | Internship | 3 | KODNEST | January to March2024 | |
| 9 | Internship | 1 | SAPTARISHI Solutions Pvt Ltd | 3-12-23 to 3-04-24 | 15000 |
| 10 | Internship | 1 | Eastern Power Distribution Company Pvt.Ltd | 22-12-23 to 23-03-24 | |
| 11 | Internship | 1 | Keyblock strategy consulting | 22-1-24 to 22-4-24 | 10000 |
| 12 | Internship | 1 | AITUDE PVT LTD | 2-1-24 to 30-04-24 | ..... |
| 13 | Internship | 1 | IIT Madras | January to April2024 | 10000 |
| 14 | Internship | 2 | IGOWISE Mobility | 21-12-2023 to 30-04-2024 | 12000 |
| 15 | Internship | 2 | MSR TECH LABZ | 15-12-2023 to 15-04-2024 | 12000 |
| 16 | Internship | 2 | VEM Technologies pvt Ltd | 22-01-24 to 22-04-24 | 12000 |
| 17 | Internship | 2 | IIT HYDERABA D | December to April2024 | December to April2024 |

achievements of our 4th and 3rd-year students during the 2023-2024 academic year, showcasing their diverse experiences across leading organizations and emerging industries.

R20 IIIrd B.TECH

| S.NO | Program Name | No.of students under taking internships | organization | duration | Stipend |
|------|--------------|---|---|----------------------|---------|
| 1 | Intership | 04 | IIT GAWHATHI | 25-05-24 to 07-07-24 | 2000 |
| 2 | Internship | 73 | IIDT(International Institute of Digital Technologies) | 27-05-24 to 20-07-24 | ..... |
| 3 | Intership | 116 | SKILL DZIRE | 01-05-24 to 01-07-24 | ..... |
| 4 | Intership | 2 | INNOGEECKS TECHNOLOGIES PRIVATE Lmt. | 08-06-24 to 08-08-24 | ..... |
| 5 | Intership | 1 | KAPIL GURU | 27-05-24 to 05-08-24 | ..... |
| 6 | Internship | 1 | SOFTWARE INNOVATIONS PRIVATE Lmt. | 11-06-24 to 11-08-24 | ..... |
| 7 | Intership | 1 | NIELT | 01-05-24 to 01-07-24 | ..... |

The 3rd-year students proved their mettle by securing internships in renowned institutions, including IIT Guwahati, Skill Dzire, and Innogeeks Technologies Pvt. Ltd. These internships, held from May to July 2024, focused on emerging fields like artificial intelligence, digital transformation, and software innovations. Our 4th-year students demonstrated remarkable dedication by undertaking internships across prominent organizations such as Cisco Networking Academy, IIDT, SAPTARISHI Solutions Pvt. Ltd., and more. These programs spanned from January to April 2024, focusing on fields like digital technologies, networking

R20 IIInd B.TECH

| S.NO | Program Name | No.of students under taking internships | organization | duration | Stipend |
|------|--------------|---|---|----------------------|---------|
| 1 | Intership | 98 | IIDT(International Institute of Digital Technologies) | 30-05-24 to 27-07-24 | 2000 |
| 2 | Internship | 13 | SKILL DZIRE | 01-05-24 to 30-06-24 | ..... |
| 3 | Intership | 01 | AIMER(Artificial Intelligence Medical and Engineering Researchers) SOCIETY | 20-05-24 to 15-07-24 | ..... |
| 4 | Intership | 25 | NIELIT | 20-05-24 to 15-07-24 | ..... |

and strategic consulting. Some students also secured stipends, with amounts reaching up to ₹20,000, reflecting the value of their contributions.

NPTEL CERTIFICATIONS

During the academic period from January to June 2024, faculty from our department has earned esteemed NPTEL certifications in specialized domains, including EV-vehicle dynamics and Electric Motor Drives, Probability for Computer Science, Microprocessors and Microcontrollers, Blockchain and its Applications. This achievement highlights their commitment to professional growth and mastery of advanced concepts, enhancing the quality of instruction and inspiring students to pursue lifelong learning. Congratulations to our faculty for their dedication and exemplary success.



As we celebrate this significant milestone, we reaffirm our commitment to academic and professional excellence. This achievement not only reflects the individual capabilities of our faculty but also the shared vision and values of our department. Let us continue to uphold this standard of excellence, pushing the boundaries of knowledge and nurturing the leaders and innovators of tomorrow.

FAREWELL

A farewell meet for the 2024 graduating batch was held on April 27, 2024, at 5:00 p.m. in the CSE Seminar Hall. Faculty and students shared memories, followed by a group photo at the basketball court, a meeting, and dinner.



The Head of the Department praised students' achievements, including Smart India Hackathon finalists, top GATE ranks, and placements. The Placement Cell Dean assured continued support post-graduation. The Best Outgoing Student awards went to Miss M Asritha (20B91A0299) and Mr. V Kishore Kumar (20B91A02H2). The event was filled with gratitude, nostalgia, and best wishes for the graduates' future endeavors. Students expressed their heartfelt appreciation to faculty and peers for their unwavering support throughout their journey.



VSG ACTIVITY



From April to June 2024, the EEE department initiated a student welfare program, led by the Voluntary Service Group (VSG) with support from faculty and alumni. Food coupons were distributed to 19 students, with 11 receiving breakfast tokens and 8 receiving lunch coupons, each valid from 15th April to 30th June 2024. The initiative aimed to assist needy students, ensuring their well-being and fostering support within the academic community.

GENDER SENSITIZATION

The Women Empowerment Cell of the EEE Department organized an awareness program on "Gender Sensitization – Its Importance in the Present Scenario" on April 12, 2024. The event aimed to enlighten students on the significance of gender sensitivity in everyday life.

The program began with a welcome note and an inspiring introduction by the event coordinator, Mrs. I. Swetha Monica, setting the tone for the session. Students actively participated by presenting thought-provoking presentations on the theme. The program fostered awareness among students, encouraging them to incorporate gender sensitivity into their daily lives. This impactful session was a step towards promoting a more inclusive and respectful environment.

FACULTY PUBLICATIONS

LIST OF PUBLICATIONS:

- Jain, R.K., Reddy, B.V. and Varma, G.H.K., 2024. Robust and efficient control strategy for single-phase two-stage PV grid-tied system with improved power quality. *Renewable Energy Focus*, 48, p.100524.
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- Venkata Durga Prasad K., Reddy, B.V., Varma, G.H.K. and Das, S., 2024. Investing Solar Bifacial Half Cut Single PV Panel for Enriched Power Delivery and System Stability Using Hybrid Approaches. In *E3S Web of Conferences (Vol. 547, p. 01023)*. EDP Sciences.
- Santosh, B.S.S., Varma, G.H.K. and Kantarao, P., 2024. A novel cross diagonal pattern for effective shade dispersion in TCT configuration. *Optik*, 300, p.171634.
- Raju, A.H.K., Barry, V.R. and Varma, G.H.K., 2024, February. Design of Novel Cross-Tied Trinary Sequence Multilevel Inverter. In *2024 International Conference on Social and Sustainable Innovations in Technology and Engineering (SASI-ITE)* (pp. 152-156). IEEE.
- Santosh BSS, Ansari M, Kanta Rao P, 2024. Analysis of Passive Partial Shading Mitigation Technique for PV Array. *Journal of Renewable Energy and Environment*, 11(1), pp.135-156.
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- Jagadeesh, P., Kuthadi, K.K., Ansari, M.M.T. and Tejaswi, G., 2024, April. Dynamic Economic Load Dispatch for a Campus Based on Renewable Energy Using HOMER. In *2024 Second International Conference on Smart Technologies for Power and Renewable Energy (SPECon)* (pp. 1-7). IEEE.
- Jagadeesh, P., Siva, A., Srinivas, N. and Ansari, M.M.T., 2024. Demand response-based dynamic economic load dispatch in a microgrid with modified red deer algorithm. *International Journal of Powertrains*, 13(2), pp.141-155.
- Kranthikumar, I., Srinivas, C.H., Kiran, T.V., Pradeep, P. and Balamurugan, V., 2024. A novel hybrid approach for efficient energy management in battery and supercapacitor based hybrid energy storage systems for electric vehicles. *Electrical Engineering*, pp.1-17.
- Bhavani, N.V.A., Singh, A.K. and Kumar, D.V., 2024. Optimized integration of renewable energy sources using seven-level converter controlled by ANFIS-CS-GWO. *e-Prime-Advances in Electrical Engineering, Electronics and Energy*, 9, p.100689.

STUDENT COORDINATORS : T.LALITHA DEVI , P.DILEEP