



S.R.K.R ENGINEERING COLLEGE

(Autonomous)

EEE CHRONICLE



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Professor & Former HOD's Message:



Dear students and staff,
Warm greetings to all.

Since its inception in 1994, the Department of EEE has graduated twenty-seven student batches.

Aiming at achieving excellence, Our department fosters an environment that encourages both students and staff for active participation in various activities like collaborative interactions for laboratory development, research innovation and incubation.

We extend our heartfelt appreciation to all faculty members for their unwavering efforts and dedication.

Best wishes,

Prof. N.SRINIVASU

Professor ,Department of EEE

VISION & MISSION

VISION:

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

MISSION:

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

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M.tech(Ph.D)

Assistant Professor

Dept of EEE

Laudable Moments

Department MOU's

Boson Motors:

Our department collaborated with Boson Motors on December 28, 2023. Mr. Suri Bhupatiraju led the initiative. The event showcased a comprehensive presentation on autonomous vehicles and live demonstrations of autonomous Utility Task Vehicles (UTVs) and culminated in test drives for attendees. This milestone underscores the department's dedication to cutting-edge technology and highlights the potentiality for fruitful collaboration between academia and industry in advancing autonomous transportation.



Our department's HOD delivered an impactful presentation to Boson Motors, a renowned company in the industry. Impressed by his expertise and insights, Boson Motors has decided to collaborate with our department. This collaboration marks a significant milestone for us, opening doors to exciting opportunities and mutual growth. We look forward to a fruitful partnership that leverages our strengths and expertise to drive innovation and success in the industry. This collaboration reaffirms our department's commitment to excellence and industry engagement.



Finch Power Limited:

On August 25th, 2023, our department signed a momentous Memorandum of Understanding (MOU) with Finch Power Limited, an distinguished solar energy company headquartered in Tanuku, Andhra Pradesh. This collaboration marks a substantial step towards utilizing renewable energy resources for sustainable development. We expect this partnership to generate inventive solutions and bolster the progression of solar energy projects in our region and beyond.



Hala Mobility:

The Department of EEE, in collaboration with Hala Mobility, an electric vehicle rental company, represents a groundbreaking

initiative toward experiential learning in sustainable transportation. This partnership allows students to fully engage in the world of electric mobility, acquiring firsthand experience with state-of-the-art technologies in the field. Hala Mobility's proficiency in electric vehicles enhances our curriculum, offering students valuable insights into sustainable transportation solutions. This alliance not only enhances our educational goals but also provides students with industry-ready skill sets to lead innovations in sustainable mobility.



Department Consultancy

Under the Pradhan Mantri Kaushal Vikas Yojana (PMKVY) 4.0, the Department of EEE conducted two skill development courses: Solar PV Installer Electrical and Solar PV Installer Suryamitra. These courses were led by Dr. G.H.K.Varma and Sri M.E.C.V. Sagar from July 11th to September 19th, 2023. A total amount of 5,18,362 was generated for the department through this initiative. Out of 60 students enrolled, 51 students successfully attained certification. These certifications hold worldwide recognition, thereby enhancing their employability prospects in the evolving PV job market.



Smart India Hackathon

The Smart India Hackathon (SIH), organized by the Government of India from December 19th to 23rd in Faridabad, Haryana, is a national initiative aimed at stimulating problem-solving and innovation among students. It serves as a platform where young minds come together to tackle real-world challenges encountered by different industries and sectors through technology-driven solutions. A



A team of students from our department, known as Eco Energy Experts, demonstrated their outstanding skills and dedication by participating in SIH 2023, securing the 2nd position in this esteemed competition.

IEEE Events

Workshop on IEEE student branch benefits & operations:

Our department organized a workshop in collaboration with IEEE, titled "IEEE Student Branch Benefits & Operations," focusing on Skills Development and Interactive Oriented, held on September 22nd, 2023. The event commenced with the inauguration program followed by informative sessions covering various topics such as Membership Benefits of IEEE, Student Branch Operations, Professional Membership benefits, and pathways to research. Participants had the opportunity to engage in interactive discussions aimed at enhancing their skills and knowledge in these areas. The workshop concluded with a valedictory session, marking the successful culmination of the event.



IEEE Conference on Image processing:



The IEEE Vizag Bay Section-ComSoc/SPS Joint Chapter hosted an engaging live-streamed conference on Image Processing (ICIP) on October 9th and 10th, 2023. This event, focussing on skills development and interactivity, comprised two key sessions: Session 1 focused on Youth Professionals Networking (YPN), facilitating connections among emerging talents whereas Session 2 spotlighted Women in Signal Processing (WISPL).



Participants also gained insights into the IEEE Xtreme coding program. Participation certificates were distributed to acknowledge attendees' contributions.

Workshop on PCB Designing:



The IEEE student branch of SRKREC organized a two-day workshop on PCB Designing on December 11th and 12th, 2023. On the first day, participants were introduced to PCBs, covering their definition, purpose, and advantages in electronic circuits. They gained insights into identifying and understanding basic electronic components. The focus on the second day shifted to PCB Design Software, providing an overview of popular software such as Easy cad. Participants learned the basic usage and navigation within the software, as well as how to translate schematics into PCB layouts. Additionally, they explored component placement and trace routing techniques. This workshop offered valuable hands-on experience and knowledge indispensable for PCB design proficiency.

Faculty training program

On October 26, 2023, our department organized an extensive training program for faculty members. Sri J. Prem Kumar, from Capricot Technologies Private Limited, served as a resource person for this program. Mr. Prem delivered a lecture covering topics such as Data Science, Artificial Intelligence, Machine Learning, and IoT using MATLAB and Simulink. Through this session, participants gained valuable insights and practical knowledge in advanced technologies, enabling them to integrate these advancements into their teaching methodologies. Prem Kumar's expertise and engaging delivery facilitated a dynamic learning experience, empowering faculty members to remain updated with the latest developments in the field and enhance their students' educational journey.



Student training program

Our department hosted a comprehensive training program for students on "Android App Development" in collaboration with the department of ECE, on September 16, 2023.



With the assistance of our students Harsha (EEE) and Sujith (ECE), participants delved into the latest techniques and tools necessary for crafting innovative mobile applications. The interactive session cultivated a vibrant learning environment, encouraging students to actively participate in practical exercises and discussions. By the end of the program, the participants had acquired valuable knowledge and practical skills, ready to thrive in the ever-changing field of Android app development.



Industrial visit

On October 7, 2023, our EEE department students visited the 220/132KV Undi substation. This visit offered students a firsthand opportunity to observe the operations and infrastructure of a crucial electrical substation. Through informative sessions with working professionals, students gained insights into the functioning and significance of high-voltage transmission systems. This visit not only enhanced their understanding of theoretical concepts but also provided them with practical insights essential for their academic and professional journey in the field of electrical engineering.



New Establishments

EV Lab Establishment:
 An Electric Vehicle (EV) lab was established with an investment of 9.75 lakhs, specifically tailored for 4-1 semester students. The hardware components are sourced from National Infotech, ensuring top-notch quality and reliability. Complementing the hardware, the simulation aspect of the lab was

meticulously crafted by our faculty to further enrich the learning experience for students. This initiative underscores our commitment to providing hands-on education and fostering innovation in emerging technologies.



CSS, and JavaScript," offering participants practical experience. Through hands-on sessions and expert guidance, attendees explored the fundamentals of web design, mastering crucial tools and techniques. Dr. Rao's expertise fostered a rewarding learning atmosphere, providing participants with the skills required to excel in web development.

Ph.Ds received by our Faculty



Dr. BANDARU SATYA SAI
SANTOSH
Ph.D. in Electrical and
Electronics Engineering
Annamalai University
Thesis Title:
Mitigation Techniques for
Partial Shading in Solar PV
System



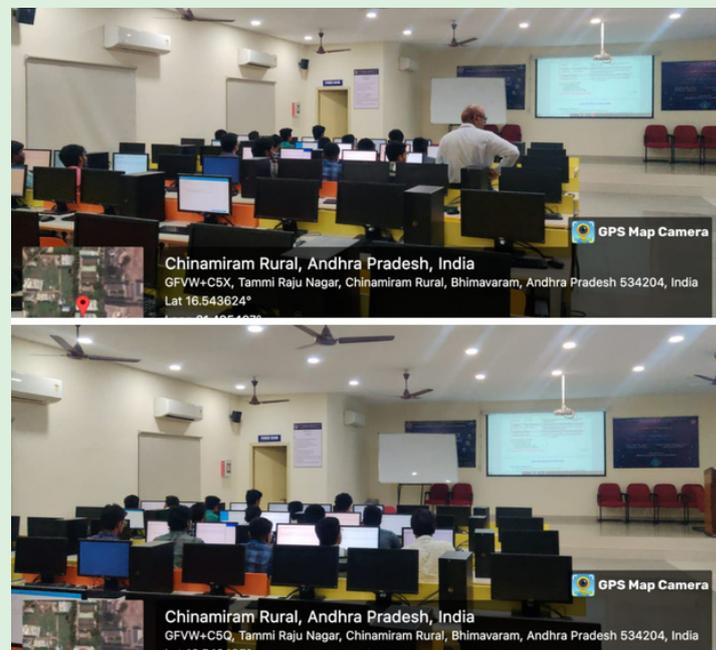
Dr. P. JAGADEESH
Ph.D. in Electrical and
Electronics Engineering
Annamalai University
Thesis Title:
Optimization of demand
response based dynamic
economic load dispatch in
MicroGrid

Congratulations to our teachers on their remarkable achievement of earning their Ph.Ds. Their dedication, perseverance, and passion for knowledge serve as an inspiration to all of us. Attainment of Ph.Ds brings a wealth of invaluable benefits to our educational community. Their advanced studies have equipped them with a deep understanding of their subject matter and enabled them to impart cutting-edge knowledge to our students. Their research skills foster critical thinking and innovative approaches in the classroom.

Seminar Hall opening & Newsletter release

September 2, 2023, marked a momentous day in the history of our EEE department. With great excitement and anticipation, we inaugurated our new Seminar Hall, a space dedicated to fostering knowledge, creativity, and intellectual collaboration.

Value-added Courses



Our EEE department organized a four-week value-added course, led by Dr. N.K. Kameshwar Rao starting from October 16, 2023. The course centered on "Designing Web Pages Using HTML,



Our esteemed Secretary and Correspondent Sri. S.R.K.Nishanth Varma , a visionary leader in the realm of education, graced the occasion with his august presence. Alongside this significant event, we also proudly launched the latest edition of our department magazine, a reflection of the remarkable achievements and talents that define our academic prowess.

VSG Activity



From October to December 2023, our department spearheaded a student feeding initiative, a social service activity led by the

Voluntary Service Group of the EEE department, with the support of faculty and alumni. Food coupons were distributed to 3/4 and 4/4 EEE students, benefiting a total of 24 students. Among them, 20 students were provided with tokens for breakfast, while 4 students received food tokens. The objective of this initiative was to provide food to nearby students of the EEE department, ensuring their well-being and fostering support within the academic community.

AEE Events

Fresher's Day:

Our department hosted Freshers Day on September 12, 2023, to warmly welcome freshers. This event provided an opportunity for them to interact with seniors and stick themselves with the college campus. The day was filled with excitement as freshers explored various activities and enjoyed engaging with their peers. Overall, Freshers Day was a resounding success, fostering a sense of enthusiasm among students.



Ethnic day:



In a groundbreaking initiative, our department proudly inaugurated Ethnic Day on October 28, 2023, as a celebration of cultural diversity and unity. Ethnic Day serves as a platform for students to highlight the rich tapestry of cultures within the college community. Beyond mere celebration, Ethnic Day encourages meaningful interactions and exchanges among students from diverse ethnic backgrounds.



It acts as a melting pot where individuals gather to learn, appreciate, and respect each other's traditions and customs. As students unite to honor their diverse heritages, they also reaffirm their commitment to fostering a more harmonious and understanding world.

Sports

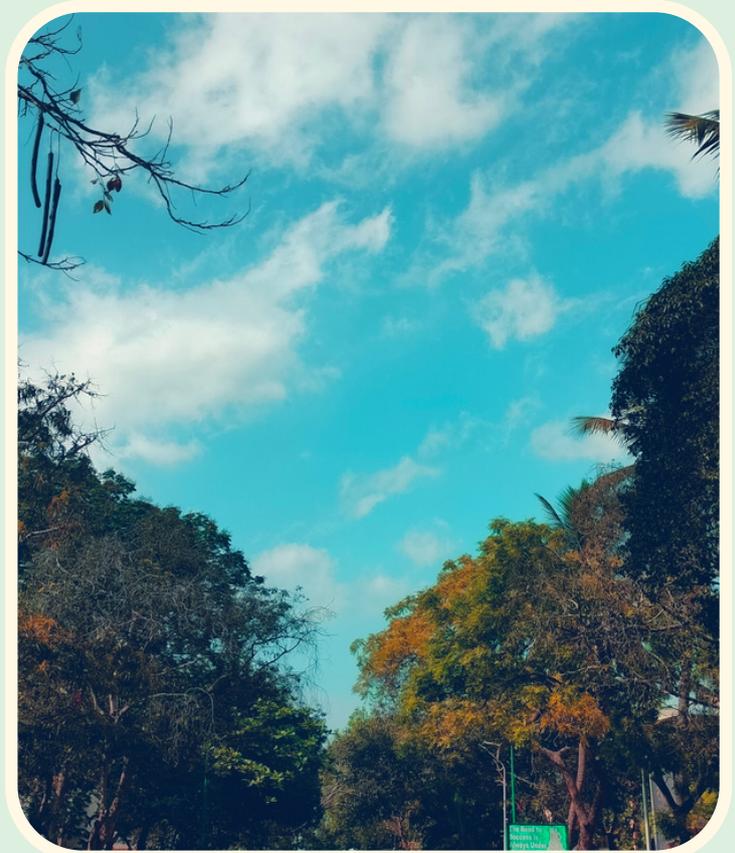


Our department gives equal emphasis on academics and extracurricular activities. Students from our department proudly represented SRKREC by enthusiastically participating in the Inter Bhimavaram Football League Tournament held from January 27th to 29th, 2024, at Dantuluri Narayana Raju (DNR) College, Bhimavaram. Demonstrating exceptional skills and teamwork, our students showcased their talent by securing both the winners and runners-up positions in this esteemed tournament. Their outstanding performance not only highlights their sporting prowess but also brings immense pride to our institution.

Faculty Publications

LIST OF PUBLICATIONS (2023)

1. K. Swetha, D. Vijaya KUMAR & V. S. Vakula , “ Design of self- organised membership functions for an optimal fuzzy controller in enhancing frequency regulation” in electrical engineering journal, springer, online published 29th September 2023.
2. K. Swetha, Dr. D. Vijaya Kumar, Dr. V.S. Vakula, “Load frequency control for unequal multi area power system by generation control strategy using CFO (PF)2 controller”, Electrical power components and systems journal, Taylor & Francis, online published 30th September 2023.
3. K.S.S.Prasad Raju, K.Vaisakh, “ A New Multilevel Inverter Topology for Symmetrical and Asymmetrical Configuration” , SSRG International Journal of Electrical and Electronics Engineering, Vol10, Issue 8, 23-36, August 2023 (ISSN: 2348-8379/ <https://doi.org/10.14445/23488379/IJEEE-V10I8P103>)
4. Swetha Monica, Alok Kumar Singh, D. Vijaya Kumar, ”Design and implementation of GCMBO control strategy for grid integrated SPV-DSTATCOM,”e-Prime-Advances in Electrical Engineering, Electronics and Energy 6(2023)100356.
5. Dadinaboina AK Rao, P. Kantha Rao, SASI. C, R. Ramesh and Narendra Babu P, “Power Quality Enrichment using an Adaptive Grid Interfacing Inverter Control Scheme in Photovoltaic Application”, Energy Systems Journal,.doi: 10.1007/s12667-023-00641-9. First published in 28th November 2023
6. R. K. Jain, V. R. Barry, Harish kumar Varma Gadiraju, “ An Effective Control Strategy for Single-Phase Single-Stage PV Grid-Tied Inverter under Abnormal Grid Conditions,” IEEE Journal of Emerging and Selected Topics in Power Electronics, doi: 10.1109/JESTPE.2023.3321374.



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P.Dileep