S.R.K.R ENGINEERING COLLEGE

(Autonomous)

EEE CHRONICLE

Electrical & Electronics Engineering

NAAC Accreditation

GRADE A+

Accredited by **NAAC**

WITH CGPA OF **3.42** ON 4 POINT SCALE

In the month of December, SRKR Engineering College was accredited with the prestigious A+ grade by the National Assessment and Accreditation Council (NAAC) with 3.42 CGPA out of 4 scale for a period of 5 years. NAAC is an autonomous body of UGC which evaluates Higher Educational Institutions in terms of their performance related to the educational process and outcomes, curriculum, teaching-learning process, research undertaken, governance, new initiatives and student services.

HOD'S MESSAGE

Dear Students & Staff,

Greetings to everyone!

Twenty five student batches have graduated from the Department of EEE since its inception in 1994.

With the motivating onset of new National Educational Policy (NEP-2020), the Department of EEE is striving passionately to create an ambience that promotes not only academic excellence but also Industry readiness, Life skills and Cultural rejuvenation. I wish all the students actively pursue their interests in the campus towards excellence in terms of placements, projects, higher education opportunities and many other. Thanks to all the faculty members for their efforts and support from the non-teaching staff members.

Best wishes
Dr.B.R.K.Varma
Head of the Department.

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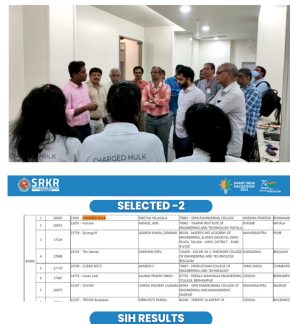- Student Talents
- Faculty Publications

Meritorious Moments

SMART INDIA HACKATHON

Suggest a redefined solution to help cities locate EV(Electric Vehicles) charging infrastructure.

Team Leader Name: Swetha Velagala
Team Member 1 - Kusuma Pindi
Team Member 2 - ManyaSri Pulakhandam
Team Member 3 - Satya Sai Uppala
Team Member 4 - Kishore Kumar Veerarapu
Team Member 5 - Harsha Vardhan Lekkala
Team Mentor 1 - Kurella Pavan Kumar
Team Mentor 2 - Dr.N.Gopala Krishna Murthy

Smart India Hackathon is a nationwide initiative to provide students with a platform to solve some of the pressing problems in our daily lives, and thus inculcate a culture of critical-thinking, innovation. and problem-solving. Students of our department participated and came out with flying colours winning 1st and 2nd prizes in SIH 2022.

FACULTY WHO RECEIVED DOCTORAL DEGREE IN THE RECENT PAST

Doctoral degree allows one to contribute to one's chosen field of knowledge through research. Adding to the research strength of the department three faculty from the department are bestowed with doctoral degree from various reputed universities. The faculty constantly upgrade their knowledge, involve in various research endeavours and help students in all possible directions and dimensions.

Dr. G PAVAN KUMAR
M.Tech., Ph.D
Andhra University

Dr.G.VEERANNA
M.Tech., Ph.D
JNTU Kakinada

Dr. G H K VARMA
M.Tech., Ph.D
NIT Goa

PLACEMENTS

2022-23 Batch Placements as of now

S.No	Companies Visited	Designation	Salary	No. of Students
1	TCS Digital	Systems Engineer	8	2
2	ZF	Engineer	6.5	3
3	Accenture (ASE)	Application Development Associate	4.5	6
4	Legato Health Technologies	Associate Software Engineer	4.5	4
5	Cognizant GenC	Programer Analyst Trainee	4.1	59
6	Cognizant GenC Elevate	Programmer Analyst Trainee	4.1	2
7	TCS Ninja	Assistant System Engineer Trainee	3.6	47
8	TCS Codevita	Assistant System Engineer Trainee	3.6	1
		Branch wise Total Offers...		124

The Campus Recruitment Training (CRT) program is one of the best practices on campus. It enhances the employability skills and job prospects of the students. Students from Department with all their diligence and determination stood superlative in getting good number of placements in various reputed companies.

SOLAR TREE

The concept of a "Solar PV Tree" is a unique blend of art and technology to form a solar PV sculpture. This novel idea was considered as an attempt to use the new technology of solar power with aesthetic sensibility.
A solar tree is basically a decorative means of producing renewable electricity. It has a tree like edifice and panels are arranged as leaves on the branches of the energy tree.

Solar Tree

It's just like a natural tree but with solar panels that resemble the leaves. "TREE stands for T=Tree generating R=Renewable E =Energy and E=Electricity". Solar tree embodies a steel structure, on top of which solar panels collect Sun's radiant energy to charge batteries and is used for street lights. Since panels are arranged at different angles, a solar PV tree is able to capture incident sunlight throughout the day irrespective of the position of the Sun. The three-dimensional structure of solar tree can enhance the total surface area to capture the sunlight. The total installation capacity is 240 Wp.This power is used to charge the battery 12V 48 Amp-hr. It will supply a load of (25*3=75W) LED strip light
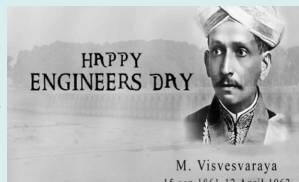
UJJWAL BHARAT

On the eve of celebrating 75th independence day of India and as a part of "Azadi ka Amrit Mahostav," the Ministry of Energy conducted an awareness program on the usage of electrical energy and energy saving. All the students of our department participated actively in this program and got benefitted.

ENGINEERS DAY

The engineers day is celebrated on 15th September every year commemorating the birth anniversary of legendary Sri Mokshagundam Visvesaraya.

M. Visvesvaraya

The Association of Electrical Engineers (AEE) is a student-body from the Dept. of EEE organised an awareness program on that day highlighting the prestigious Indian engineers who contributed to the wellbeing of the nation. This facilitated the present students to know the significant contributions of our esteemed engineers. It also conducted various events like EXPOS and Seminars on this occasion. All the students actively participated and got benefitted.

INNOVIZ

INNOVIZ is the event conducted by AEE for the students of the Dept. of EEE. This event is conducted mainly to enhance the technical skills among the students, remove stage-fear, and make them ready for the future job interviews.

This is a two day event and the description of the event is as follows:
Day-1: WORD CHAIN-Observation Skills,QUIZ-General Knowledge and Reasoning and COLOUR CODES-Technical Quiz
Day-2:COMPONENTS AND APPLICATIONS Round related to core knowledge,RAPID FIRE General Knowledge and SPEAKING ACTIVITY Communication Skills.

TEACHERS DAY

Teacher's day is celebrated on the occasion of Dr.Sarvepalli Radha Krishnan on 5th Sept every year. On this day AEE organized the teacher's day celebrations every year. AEE paid gratitude to all the teachers on behalf of all the students for the hard work they put on for the futures of all the students. They felicitated all the faculty of the department. The Faulty delivered their speeches and inspired all the students out there and shared their valuable experiences with the students.

INDUSTRIAL VISIT

220/132/33 kv substation Undi   **132/33/11 kv substation Bhimavaram**

The main aim of the Dept. of EEE is to make the students gain knowledge through experiential learning. Moving in this direction the Department arranged industrial visit to the substations in Undi and Bhimavaram. The students got insightful information about the equipment used in Transmission & Distribution systems, various feeders, HV Transformers and circuit breakers.

ALUMNI

The alumni of the department excelling in various field across the globe are a great pride to the institution.   The track record of All India GATE ranks by the alumni is the greatest strength and the motivating factor. The alumni visit the campus whenever their time permits and are the source of inspiration to all the current students. They interact with them, share their experiences, and guide to explore future prospects.

INTERNSHIP

Internships provide special training to the students. The experience gained through internships paves better professional path to the students. They enhance connectivity with various resources and broadens the prospects of job as well as higher education.

The students of our department successfully completed the internships offered by various companies: 14 students did their internship in AP TRANSCO, 5 students did Community Service internship,22 students did their internship in Vijayawada thermal power station(VTPS) ,1 student did internship in Indian Railways and 1 student did internship in PNK Pipe Products PVT LTD.

EKAM EVENT

Basically, students undergo a lot of stress in their academic journey as they keep working for their future. Since yoga promotes health and inner peace, the students in the department are motivated to practice Yoga regularly. They are encouraged enough to participate various events on the campus that can act as stress busters. The department conducted an event called EKAM in order to enrich physical and mental stamina.

Special care

Our department provides extra care for all the girl students. A special waiting room with all required facilities is provided to the girl students in the department. It enables the students to take rest in case of any ill-health and even there is a provision for sanitary napkins.

INDUSTRIAL TOUR

The Dept. of EEE emphasis on hands-on approach and relentlessly strive to make the students to go beyond the world of books and experience things in real life scenarios. In this direction, the department conducts industrial trips to various power plants and tries to improve the learning experience. The students get a chance to enhance their knowledge by practically interacting with various experts in the power-plants.

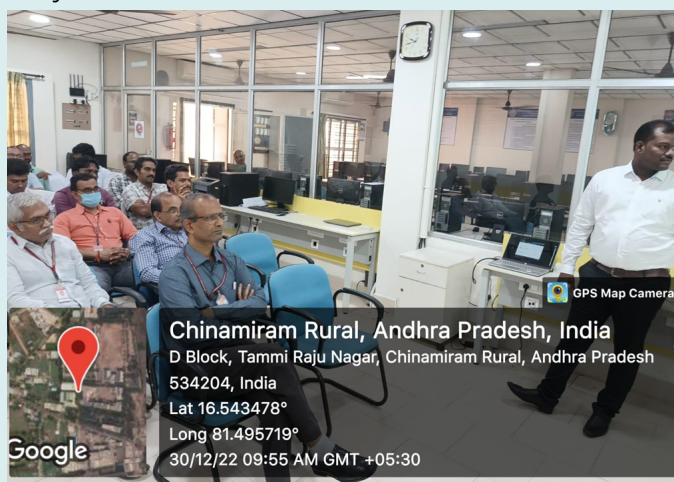Below are the glimpses of the industrial visits:

TRAINING PROGRAMS

The department of EEE is proactive in conducting various training programs to the students to make them ready to face the challenges ahead. These programs fine-tune the skill-sets of the students. Keeping in view that VLSI Chip Design Course help students to win jobs in core sector, the department offered this and facilitated the students to upgrade their knowledge. Tracking the needs of the industry, the Department takes care of improving the skills of the students accordingly.
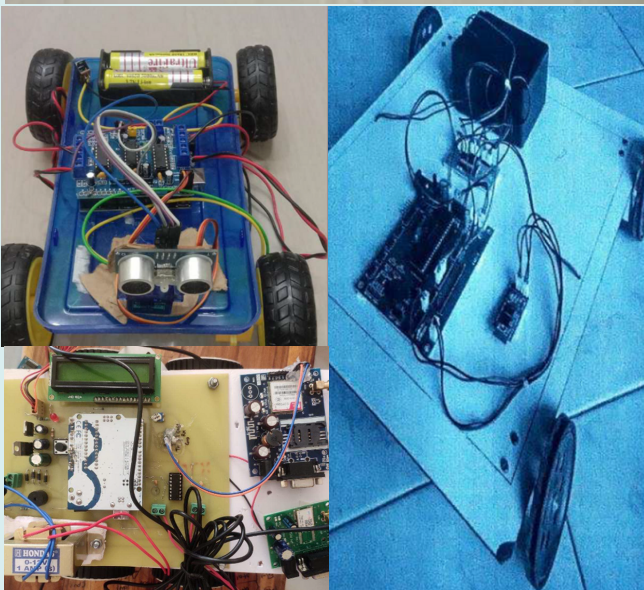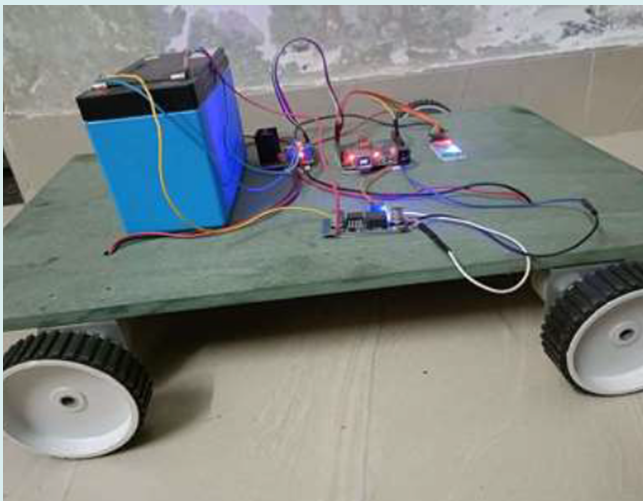

FACULTY TRAINING PROGRAMS

An internal staff training program was arranged to the faculty on Fuzzy Logic Controllers for Electrical Systems. Speaker Dr.Suresh Mikkili from NIT Goa explained the application of fuzzy logic controllers to power quality issue and DC motor drive speed control. He interacted with faculty of the department about their research problems and explained where they can implement this fuzzy in their research work.

STUDENT PROJECTS

Projects are group activities that promote innovative as well as critical thinking of the students. They learn the dynamics of teamwork. The department of EEE always strives for the development of the students hence the faculty in the department encourage all the students to work on various projects and improve their skills. In order to encourage and motivate the students, a dedicated lab called "Sadhana-Projects Laboratory" was established to utilize and develop project hardware prototypes. Students are allowed to utilize this lab for doing their mini project, curriculum and non-curriculum project works. Every year in the month of March-April, Department organizes "Project-Expo" to demonstrate/exhibit all the curriculum and non-curriculum student projects. It makes a good platform for knowledge sharing and the best projects/prototypes are rewarded with a cash prize and merit certificate. some of the projects are presented below:

SPORTS

Sports are always integral part of education. Participating in various sports and games make students physically fitness which in-turn promotes learning ability. Adding one more feather to the cap of the department of EEE, the students team from the department participated in cricket and volleyball tournaments held on the campus and stood as runners. They cherished their winning spirit. Here are a few snapshots of the participation od students in sports and games.

Kishore cup (cricket)

Volleyball   **Kishore cup (cricket)**

STUDENT TALENTS

The department supports various talents of the students along side academics. The following art is just one example.

This is by K. Amrutha Sri Vidya (4/4)

4

FACULTY PUBLICATIONS

1. K Raja, M. K. Patan, Md Ahmed, P. Ganeshan, " Water Evaporation Algorithm Optimized Cascade Controller for Frequency Regulation of Integrated Microgrid" Journal of Intelligent & Fuzzy Systems (IOS Press), 2022. https://doi.org/10.3233/JIFS-212434

2. Aljafari, Belqasem, Priya Ranjan Satpathy, M. Siva Rama Krishna, Pradeep Vishnuram, and Sudhakar Babu Thanikanti, "Reliability Enhancement of Photovoltaic Systems under Partial Shading through a Two-Step Module Placement Approach" Energies 15, no. 20: 7766, 2022. https://doi.org/10.3390/en15207766

3. B. Aljafari, M. Siva Rama Krishna , P.R. Satpathy, S.B.Thanikanti, B.Victor Ayodele, "Automatic Monitoring System for Online Module-Level Fault Detection in Grid-Tied Photovoltaic Plants" Energies 2022, 15(20), 7789; https://doi.org/10.3390/en15207789

4. G. Madhavi, V.Harika, Md. Azaharhmed, "Diversified soft computinf techniques for economic load dispatch problem", Journal of Theoretical and Applied Information Technology 100, no.10, 2022. http://www.jatit.org/volumes/Vol100No10/12Vol100No10.pdf

5. Vemulapalli, Harika, Madhavi Gudavalli, and Md. Azaharahmed. "Prototype for Automatic Fire Detection and Extinguishing Robot." ECS Transactions 107, no. 1 (2022): 11673. https://doi.org/10.1149/10701.11673ecst

6. G. Veeranna, K. Kiran Kumar, K. Vaisakh, R.S. Rao, "Adaptive PID-Fuzzy logic controller modeling for brushless DC motor drive system", International Journal of Early Childhood 14, no. 02 (2022): 1427-1435.

7. Vemulapalli, Harika, Madhavi Gudavalli, G.Veeranna, M.K.Patan, Md. Azaharahmed. "Cuckoo Optimized Novel Cascaded Controller for Reducing the Frequency Deviations in AGC of Interconnected Power System" NeuroQuantology 2022; 20(10): 2622-2631. https://doi.org/10.14704/nq.2022.20.10.NQ55225

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