



Sri

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Sai Leo Nagar, West Tambaram, Chennai - 600 044. www.sairam.edu.in

Sairam NEWSLETTER EEE



VOLUME 26 | ISSUE NO 1

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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

VISION

To inculcate discipline, good quality education, research and training, wide knowledge to meet the global standards, opportunities to gain practical knowledge in the laboratories, awareness in emerging technologies in students to render their services for the betterment of the society with ethics.

MISSION

To provide a platform in acquiring knowledge in the field of Electrical and Electronics Engineering with highest quality in technical education and services to the society. To fulfill the needs:

TEACHING AND MENTORING - To provide best teaching and mentoring through ethical and moral values.

PROFESSIONAL GROWTH- To provide quality education for Electrical and Electronics Engineers that prepares them for exemplary life-long career and professional growth.

CUTTING-EDGE TECHNOLOGIES- To develop cutting edge technologies through research that meets the needs of industry, government and the scientific community.

HIGHER STUDIES- To guide our graduates to pursue their formal education further, including PG and PhD programmes.

SOLUTION PROVIDERS- To excel in student learning activities, to produce them as problem solvers as a team or individual by active interaction and effective communication with peers and stakeholders.





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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

PROGRAM EDUCATIONAL OBJECTIVES

PEO I: Graduate will apply the principles of basic science, mathematics and engineering fundamentals necessary to formulate, solve and analyze engineering problems.

PEO II: Graduate will expertise in the field of Electrical and Electronics Engineering.

PEO III: Graduate will acquire the knowledge for pursuing advanced degrees in Engineering, Science, Management, Research and Development.

PEO IV: Graduate will achieve professionalism, leadership qualities, self and continuous learning.

PEO V: Graduate will fulfill the needs of the society by working as Engineers, Entrepreneurs in core as well as inter-disciplinary areas in an ethical and responsible manner.

PROGRAM SPECIFIC OUTCOMES

PSO1. Students gain proficiency in analyzing and resolving complex issues related to Power and Energy, Power Electronics and Embedded Systems.

PSO2. Students gain the knowledge to design and control electrical machines and drives for applications in transportation and industrial sectors.



From the HoD's desk...



Dr. R. Azhagumurugan M.E., Ph. D

Head of the Department

Electrical and Electronics Engineering

We are delighted to share the key highlights of the Department of Electrical and Electronics Engineering from **June to December 2023**. During this period, the department organized a variety of events, workshops, and webinars, providing students with valuable opportunities to enhance their technical skills, gain industry exposure, and engage in innovation-driven learning. These initiatives aimed to bridge the gap between theoretical knowledge and practical applications, fostering a culture of research, entrepreneurship, and professional development.

One of the major highlights was **SAI MAGNICON - ELECTRAX 2K23**, a flagship event that brought together students, faculty, and industry experts to explore advancements in electrical and electronics engineering. .

The department also celebrated **World Standards Day**, emphasizing the importance of global standards in engineering and technology. A **workshop on MATLAB** was conducted to equip students with essential simulation and modeling skills, while the **Sairam Defence Innovation and Startup Hackathon 2.0 Bootcamp** provided a platform for students to develop innovative defense solutions. Additionally, the **PLUG INTO SAFETY: Unveiling the Best in Electrical Awareness session at the Engineering Practices Lab** raised awareness about electrical safety practices and precautions.

To enhance students' knowledge, the department organized a **Webinar on the Design and Development of Electric Vehicles**, highlighting e-mobility and sustainability. The "**Sairam to UPSC - Aspire, It's Doable!**" webinar provided guidance for civil service aspirants. Spark Fest – Idea Presentation encouraged innovative thinking and problem-solving. Additionally, several IEEE events offered opportunities for research, networking, and discussions on emerging technologies.

Through these initiatives, the department continues to empower students with industry-relevant skills, encourage interdisciplinary learning, and cultivate a spirit of innovation and excellence in Electrical and Electronics Engineering. We look forward to organizing more impactful events and creating opportunities for students to excel in their academic and professional journeys.

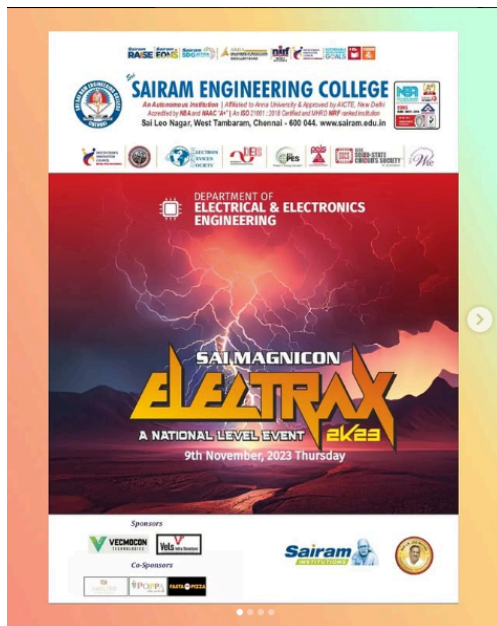
Dr. R. Azhagumurugan

Head of the Department

hod.eee@sairam.edu.in

"The future belongs to those who believe in the beauty of their dreams."

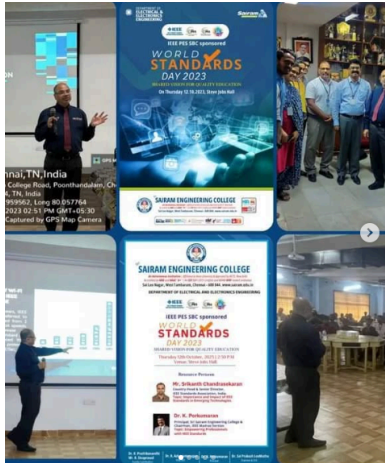
SYMPOSIUM ELECTRAX 2K23



Department of Electrical and Electronics Engineering, Sai Magnicon proudly conducted National Level Technical Symposium “ELECTRAX 2K23” held on NOVEMBER 9TH 2023

GUEST LECTURE /WORKSHOP

WORLD STANDARDS DAY-12-10-2023



The Department of Electrical & Electronics Engineering of Sri Sai Ram Engineering College-Chennai in association with IEEE PES SBC celebrated 'The Worlds Standards day 2023' with Mr. Srikanth Chandrasekaran, Country Head & Project Director, IEEE Standards Association, India- in our campus on 12.10.2023, Thursday at 2.30 pm in Steve Jobs hall

Workshop on matlab-26-09-2023

The Department of Electrical and Electronics Engineering, Sri Sairam Engineering College, in association with the Automobile Club, successfully organized a workshop on MATLAB on September 26, 2023, at BETA Hall. The session was delivered by Dr. T. Porselvi, Associate Professor, EEE, and Advisor of SEC IEEE PELS SBC. The event was coordinated by Dr. L. Kurinjimalar (SEC/EEE), providing participants with valuable insights into MATLAB applications.



GUEST LECTURE /WORKSHOP



PLUG INTO SAFETY - 1-1-2023:

The Department of Electrical and Electronics Engineering, Sri Sairam Engineering College, successfully organized “PLUG INTO SAFETY: UNVEILING THE BEST IN ELECTRICAL AWARENESS” on December 1, 2023, at the Engineering Practices Lab. This interactive session was conducted for the school students of Sri Sairam Matriculation Higher Secondary School, aiming to enhance their knowledge of electrical components and safety awareness.

Sairam Defence Innovation and Startup Hackathon 2.0 Bootcamp-24.11.2023

The Bootcamp concluded successfully with 50 teams from SEC and SIT gaining insights from experts like Dr. Karthikeyan (IITDM Chennai) and Dr. Thirukkumaran (SkillsDA Ltd). Participants developed defense-focused solutions and pitched their ideas to judges. The winning team will be announced soon.



GUEST LECTURE /WORKSHOP



Virtual roadshow on the IDEX DISC and DISC PRIME (X)* -22-11-2023

Sri Sairam Engineering College, in collaboration with Sri Sairam Techno Incubator Foundation and IEEE Madras Section, hosted a Virtual Roadshow and Outreach event on November 22, 2023. The keynote address was delivered by Shri. Joel Sachin, Deputy Program Director, iDEX, DIO, Ministry of Defence. Insights were shared by Dr. K. Porkumaran, Chairman, IEEE Madras Section, and iDEX DISC 7 SPRINT Indian Navy Winner

Webinar on "Design and Development of Electric Vehicles" – September 12, 2023

The Department of Electrical and Electronics Engineering, in association with SEC IEEE PELS SBC, organized a webinar on "Design and Development of Electric Vehicles" on September 12, 2023, from 6:30 PM to 7:30 PM. The session was led by Mr. Nithyanandan Ponnusamy, a SAFe Product Owner/Product Manager, who provided insights into the future of electric vehicles. The event was coordinated by Dr. T. Porselvi (Prof/EEE), SEC IEEE PELS Advisor.



GUEST LECTURE /WORKSHOP

Webinar on "Sairam to UPSC - Aspire, it's doable!" – July 30, 2023

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SKILL DEVELOPMENT CLUB
IN ASSOCIATION WITH
SEC IEEE PELS SBC

Webinar on
Sairam to UPSC - Aspire, it's doable!

Resource Person

Mr. M. Rajkumar IPS
Superintendent of Police,
Maharashtra.
Alumnus of SEC EEE

Date: 30th July 2023
Time: 11:00 AM to 12:00 PM
Venue: ONLINE - ZOOM
Link: <https://llng.com/mMkA6>

Dr. T. Porselvi
SEC IEEE PELS Advisor
SENIOR MEMBER OF IEEE

Dr. M. Ananthi
HOD - CSBS
CAPTAIN - SDC

Dr. K. Porkumaran
PRINCIPAL - SEC

Dr. Sai Prakash LeoMuthu
CHAIRMAN & CEO

The Skill Development Club, in association with SEC IEEE PELS SBC, organized an inspiring webinar on UPSC preparation on July 30, 2023. The session featured Mr. M. Rajkumar IPS, Superintendent of Police, Maharashtra, and a proud alumnus of Sri Sairam Engineering College (EEE). The event was guided by Dr. T. Porselvi, IEEE PELS Chapter Advisor, and Dr. M. Ananthi, Skill Development Club Captain & HOD of CSBS.

"Through the Lens" – June 30 to July 2, 2023

The Department of Electrical and Electronics Engineering, in association with SEC IEEE EDS SBC, successfully organized "Through the Lens," a photography contest exclusively for first-year students from June 30 to July 2, 2023. The event encouraged participants to explore themes such as the beauty of science & nature, the view of culture, and the taste of learning. Guided by Ms. P. Shanmugapriya (IEEE EDS Advisor) and Dr. R. Azhagumurugan (HOD/EEE), the contest provided a creative platform for students to showcase their perspectives through photography.

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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING & SEC IEEE EDS SBC

THROUGH THE LENS

Theme :

1. Beauty of science & nature
2. View of culture
3. Taste of learning

Student Coordinator
SRILEKHA - II YEAR EEE - 9442723596
SUREJ - II YEAR EEE - 9566233775

30/06/2023 TO 2/07/2023

E CERTIFICATES WILL BE PROVIDED TO ALL THE PARTICIPANTS & THE PHOTOS WILL BE POSTED ON OUR OFFICIAL INSTAGRAM PAGE @SEC IEEE EDS SBC

Ms. P. SHANMUGAPRIYA
IEEE EDS ADVISOR

Dr. R. AZHAGUMURUGAN
HOD / EEE

Dr. K. PORKUMARAN
Principal SEC

Dr. SAI PRAKASH LEO MUTHU
Chairman & CEO
Sairam Institutions

GUEST LECTURE /WORKSHOP

Webinar on "Sairam to UPSC - Aspire, it's doable!– June 20, 2023

The Department of Electrical and Electronics Engineering, Sri Sairam Engineering College, in association with IEEE PELS SEC SBC, celebrated PELS Day on June 20, 2023, at SSR Hall with a Distinguished Lecture Program (DLP). Dr. Sanjib Kumar Panda from the National University of Singapore delivered a session on "Plug and Play Operational Approach for an Implementation of an Autonomous Microgrid System." The event also featured Dr. K. Porkumaran, Chairman, IEEE Madras Section, discussing "Unveiling the Potential of IEEE," and Dr. Albert Alexander, Chairman, IEEE PELS Madras Section, presenting on "Role of Machine Learning in Power Electronics."

Spark Fest – Idea Presentation on September 19, 2023

The Department of Electrical and Electronics Engineering, Sri Sairam Engineering College, in association with SEC IEEE EDS SBC, organized "Spark Fest" on September 19, 2023. The event focused on SDG Goals, encouraging students to present ideas on responsible consumption, climate action, and life under water. Winners were awarded internship opportunities, providing hands-on industry exposure. The event was coordinated by Sri Lekha P. and Surej R. S., with the last date for registration being September 14, 2023.

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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING
& SEC IEEE EDS SBC

SPARK FEST
Idea Presentation On 19th September 2023

Internship opportunities for the winners

FOR REGISTRATION

THEMES:

1. SDG Goal 12-Responsible consumption and production
2. SDG Goal 13-Climate action
3. SDG Goal 14-Life under water

EVENT COORDINATORS:
1)SRI LEKHA P-9442723596
2)SUREJ R S- 9566233775

Last Date for Registration 14th September

Dr.P.SHANMUGAPRIYA
IEEE EDS ADVISOR

Dr.R.AZHAGUMURUGAN
HOD / EEE
IEEE PES Treasurer - MS

Dr.K.PORKUMARAN
Principal

Dr.SAI PRAKASH LEO MUTHU
Chairman & CEO



GUEST LECTURE /WORKSHOP

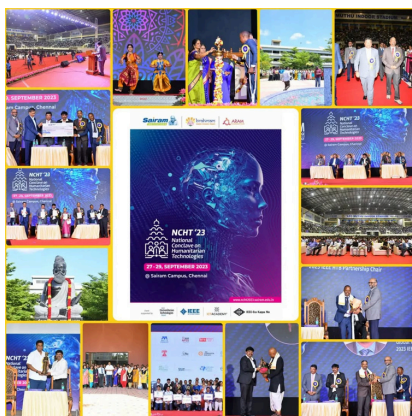


VLSI: Learn about VLSI and witness a live demo on RTL to GDSII using Open Road Flow.-11/10/2023

Aimed to give students and professionals an in-depth understanding of the VLSI design process, as well as practical exposure to OpenROAD, an open-source toolchain used for chip design.

Breaking the barrier – high speed and high-power Permanent Magnet Machines-03/10/2023

Event likely centered around the advancements in Permanent Magnet Machines (PMMs), particularly high-speed and high-power applications, which are vital in many modern electrical and power systems.



National Conclave on IEEE Humanitarian Technologies at Sri Sairam Engineering College from September 27th to 29th, 2023 is an initiative focuses on using technology to address global challenges such as poverty, health, education, clean energy, disaster management, and sustainable development.



GUEST LECTURE /WORKSHOP

ENGINEER'SDAY
EXTRAVAGANZA-TEST YOUR
ENGINEERING IQ on account of
"ENGINEER'S DAY 2023" was
organized to honor the contributions of
engineers to society, raise awareness
about the importance of engineering, and
engage the community, especially
students, with fun and educational
activities.



SIMULATE AND INNOVATE:KEIL
AND PROTEUS EMBEDDED
WORKSHOP " is a event focused on
embedded systems design, simulation,
and innovation using two popular tools:
Keil and Proteus by ELECTRICAL
AND ELECTRONICS
ENGINEERING in association with
Solid State Circuits Society (SSCS).

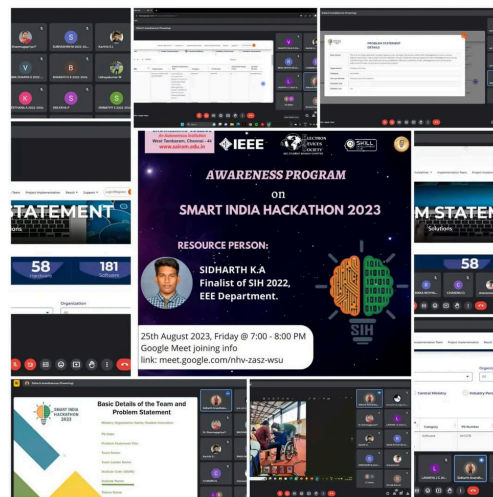
DIGITAL LITERACY organized by the
Department of Electrical and Electronics
Engineering (EEE) in collaboration with
IEEE PELS SEC SBC, IREX, and the
US Embassy. This is a significant
initiative, aiming to promote awareness
and skills related to digital literacy, which
is essential in today's technology-driven
world.



GUEST LECTURE /WORKSHOP

Awareness Program on SIH 2023

likely focused on raising awareness about SIH 2023, which refers to the Smart India Hackathon (SIH), a nationwide initiative that encourages students to solve real-world problems through innovative and technical solutions, especially in the fields of engineering and technology.



FACULTY PUBLICATIONS

(June-December 2023)

Faculty Name : MEENAKSHI.B

Journal/Conference :

1. Concurrency and Computation Practice and Experience, Wiley Online (19 July 2023)

Title of the paper :

1. Blockchain-enabled joint trust (RF-AOA-HTSA) algorithm-based multiobjective clustering protocol for wireless sensor network

Faculty Name : RAJAKUMAR.P

Journal/Conference :

1. International Journal on Recent and Innovation Trends in Computing and Communication 11 (9s):695-708 (August 2023)

Title of the paper :

1. Interline Unified Power Quality Conditioner for Enhancing Power Quality Using FOFPID-Based Interleaved CUK Converter

Faculty Name : KOTHAI.R

Journal/Conference :

1. AIP Conference Proceedings, Vol.2914(1)P.No.050013 (December 14 2023)

Title of the paper :

1. Next-generation digital healthcare cloud folder for patients

Faculty Name : VENKATESAN.G

Journal/Conference :

1. International Conference on Inventive Research in Computing Applications (ICIRCA 2023) (28 August 2023)
2. Smart Garbage Monitoring and Vigilant System (July 6-8 2023)

Title of the paper :

1. Advancing Cybersecurity with Explainable Artificial Intelligence: A Review of the Latest Research
2. International conference on electronics and sustainable communication systems, Hindusthan Institute of Technology, Coimbatore

FACULTY PUBLICATIONS

(June-December 2023)

Faculty Name : RAJKUMAR.K

Journal/Conference :

1. 2023 Intelligent Computing and Control for Engineering and Business Systems (ICCEBS) (14-15 December 2023)
2. 2023 Intelligent Computing and Control for Engineering and Business Systems (ICCEBS) (14-15 December 2023)

Title :

1. Charging Electric Vehicles at Fuel Stations Using Solar Energy And Fuel Cell Technology
2. An Electric Vehicle Solar PV Case Studies Based Demand Response Modernization

Faculty Name : MOHAN.S

Journal/Conference :

1. Transmission Line Fault Detection Using IoT (14 - 15 December 2023)

Title :

1. Intelligent Computing and Control for Engineering and Business Systems (ICCEBS)

Faculty Name : SANJEEVI GANDHI.A

Journal/Conference :

1. An Experimental Study-Based Dynamic Modeling and Control of Thermal Desalination Pilot Plant (26 October 2023)

Title :

1. Journal of The Institution of Engineers (India): Series B This link is disabled.

Faculty Name : PRIYA.C

Journal/Conference :

1. Multi-Scale Deep Learning-based Recurrent Neural Network for Improved Medical Image Restoration and Enhancement (October-2023)

Title :

1. International Journal of Advanced Computer Science and Applications

FACULTY PUBLICATIONS

(June-December 2023)

Faculty Name : SURESH.K

Journal/Conference :

1. AI-based Messaging System to the Hospital about Patient's Health Conditions(03-06-2023)

Title :

1. Journal of Instrumentation and Innovation Sciences, vol. 8(2), P.No.19-25

Faculty Name : PORSELVI.T

Journal/Conference :

1. Carpathian Journal of Food Science and Technology (04-July-2023)

Title :

1. Enhancing Crop Yield Prediction in Precision Agriculture Through Sustainable Big Data Analytics and Deep Learning Techniques

Faculty Name : KURINJIMALAR.L

Journal/Conference :

1. 2023 Intelligent Computing and Control for Engineering and Business Systems (ICCEBS)(14-15 December 2023)
2. 2023 Intelligent Computing and Control for Engineering and Business Systems (ICCEBS)(14-15 December 2023)

Title :

1. IoT Based Ignition System By Insertion And Verification of Driving License
2. An Electric Vehicle Solar PV Case Studies Based Demand Response Modernization

FACULTY PATENT DETAILS



Faculty Name : Dr.K.Suresh
Title : A system and method for battery management system for green energy
Application storage
Number : 2.02341E+11
Date of Filing : 7/2/2023
Status : Published
Date of Publication : 01/09/2023



Faculty Name : Mr. Barath Kanna C
Title : ENERGY MANAGEMENT USING IMPROVED MEASURING
Application STRUCTURE AND SUBSTATION CENTRALIZED VOLTAGE CONTROL
Number : 2.02341E+11
Date of Filing : 1/12/2024
Status : Published
Date of Publication : 10/6/2023



FACULTY PATENT DETAILS



Faculty Name : Dr.R.Azhagumurugan
Title : A CONTROL SYSTEM USING IOT FOR ELECTRIC VEHICLES
Application : MANAGEMENT
Number : 2.02341E+11
Date of Filing : 9/6/2023
Status : Published
Date of Publication : 10/6/2023



Faculty Name : Dr.K.Prathibanandhi
Title : Motor and Battery Overheat Detection in Electric Vehicles
Application :
Number : 2.02341E+11
Date of Filing : 10/17/2023
Status : Published
Date of Publication : 11/3/2023



STUDENT ACHEIVEMENTS

(June - December 2023)



Asian Roller Skating Championship

The Department of Electrical and Electronics Engineering of Sri Sai Ram Engineering College-Chennai is happy and proud of our third year A section student Mr.Someshwar.V.S.

Hackathon Winner

The Department of Electrical and Electronics Engineering of Sri Sai Ram Engineering College-Chennai is proud and happy to share the success of our third year A section student T.RESHMI and her team.



STUDENT ACHIEVEMENTS

(June - December 2023)

The IEEE WIE AG SEC SB Chapter from the Department of Electrical and Electronics Engineering is proud to announce that three IEEE members have been selected as IEEE Region 10 WIE Pre-University Champions 2023. The announcement highlights **Dr. R. Meenakshi** (Chapter Advisor, IEEE WIE AG SEC), along with **Sowmiya R. (Final Year, EEE)** and **Hariharan Kharal (Final Year, EEE)** for their achievements. The design includes congratulatory messages and IEEE branding.



CREA-THON

Vijay Kumar A III Yr has clinched the finalist position in the prestigious CREA-THON 2023 (Designing Competition) organized by the Election Commission of India in Hyderabad. On October 13, 2023, he was honored with an award by Shri Vikas Raj, IAS, Chief Electoral Officer of Telangana.



STUDENT ACHEIVEMENTS

(June - December 2023)



SRM Hackathon

Team Jaiakash S, Arifthaslim A R A, and Mrithyunjayasihi have achieved an outstanding victory, clinching the first prize and a well-deserved cash prize in the recent ideathon and hackathon organized by SRM.

Proud to share the achievements of third-year Section-A student Mr.K.Venkatapathi. He has won the gold medal in the firing competition at the All India Thal Sainik Camp NCC in Delhi. He will be representing Tamil Nadu among 9 cadets from whole state in Firing Competition in ALL INDIA THAL SAINIK CAMP at Delhi from 19th to 30th Sep.



FACULTY AWARDS (2023-2024)



Faculty Name	:	Mr.R.Sivaprasad
Award	:	Best Teacher award
Publication	:	IET
Year	:	2023



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Associate Professor

Electrical and Electronics Engineering

STUDENT EDITOR TEAM

AJITHA SRI

III Year

Electrical and Electronics Engineering

UTHAMA RAJA M

II Year

Electrical and Electronics Engineering

MAHATHI S V

II Year

Electrical and Electronics Engineering

MOHAMMED AZARUDEEN F

II Year

Electrical and Electronics Engineering

HINDU S

II Year

Electrical and Electronics Engineering

AKASH N

II Year

Electrical and Electronics Engineering

SRISANJIT P D

II Year

Electrical and Electronics Engineering



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