



# Sairam NEWSLETTER EEE



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Sri  
**SAI RAM ENGINEERING COLLEGE**

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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 pleased to share the highlights of the Department of Electrical and Electronics Engineering from **June 2021 to December 2021**. The department successfully conducted the National Level Technical Symposium **“FLUXION '21”** on **20th October 2021**, providing a platform for students to showcase their technical skills.

A series of technical sessions were organized, including a Key note Talk on “Micro to Nano Semiconductor Devices and Application and a workshop on PCB DESIGN USING KICAD , ensuring students stay updated with industry advancements. The **SAIRAM ENSAV Club** successfully conducted “Sairam MUN 2.0” Conference, where teams took roles as CEO, Policy Maker, and Environment Analyst to discuss the Global Transition towards Renewable Energy, fostering leadership and analytical skills.

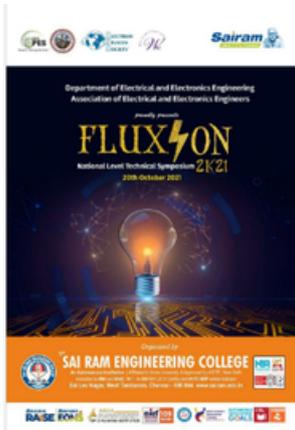
We are also proud to highlight that our faculty members actively engaged in various internships, enhancing their industrial knowledge to provide a better learning experience for students. As we move forward, we encourage our students and faculty to continue their journey of innovation, research, and excellence in Electrical and Electronics Engineering.

Dr. R. Azhagumurugan  
Head of the Department  
[hod.eee@sairam.edu.in](mailto:hod.eee@sairam.edu.in)

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



# SYMPOSIUM FLUXION '21



Department of Electrical and Electronics Engineering, Sai Magnicon proudly conducted 21st National Level Technical Symposium “FLUXION ’21” held on 20th October, 2021



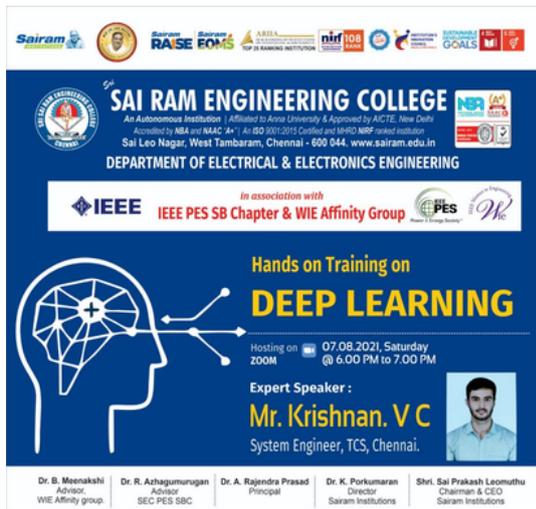
# CONFERENCE SAIRAM MUN 2.0

Department Of Electrical And Electronics Engineering Organizes IEEE Technically Sponsored “Sairam MUN 2.0” Conference for students on 29/10/2021 and 30/10/2021



# GUEST LECTURE /WORKSHOP

## A Hands On Training On “Deep Learning”- 07/08/2021



The poster for the 'Hands on Training on DEEP LEARNING' event is primarily blue and white. At the top, it features the Sairam logo and various accreditation logos including RAISE, EOMS, AICTE, NIT 108, and others. The main title 'SAI RAM ENGINEERING COLLEGE' is prominently displayed, along with its affiliation to Anna University and approval by AICTE. Below this, it mentions the Department of Electrical & Electronics Engineering. The event is organized in association with the IEEE PES SB Chapter & WIE Affinity Group. The central graphic shows a stylized human head profile with a brain and neural network connections, with the text 'Hands on Training on DEEP LEARNING' overlaid. The event details specify it is hosted on Zoom on 07.08.2021, Saturday, from 6:00 PM to 7:00 PM. The expert speaker is Mr. Krishnan. V C, System Engineer at TCS, Chennai, with a small portrait photo. At the bottom, a list of faculty members and their roles is provided.

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DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING

in association with  
**IEEE PES SB Chapter & WIE Affinity Group**

**Hands on Training on  
DEEP LEARNING**

Hosting on **Zoom**  
07.08.2021, Saturday  
@ 6.00 PM to 7.00 PM

Expert Speaker:  
**Mr. Krishnan. V C**  
System Engineer, TCS, Chennai.

Dr. B. Manakshi, Advisor, WIE Affinity group.  
Dr. R. Ashwagunagan, Advisor, SEC PES SBC.  
Dr. A. Rajendra Prasad, Principal.  
Dr. K. Porkumar, Director, Sairam Institutions.  
Shri. Sai Prakash Leomuthu, Chairman & CEO, Sairam Institutions.

The Department of Electrical and Electronics Engineering, in association with the IEEE PES SB Chapter and WIE Affinity Group, organized a hands-on training program on “Deep Learning” on 7th August 2021. The session was conducted by Mr. Krishnan V. C., System Engineer at TCS, Chennai, who provided practical insights and guidance on deep learning concepts and applications.

## Key note Talk on “Micro to Nano Semiconductor Devices and Application”- 16/09/2021

The Department of Electrical and Electronics Engineering organized the Inauguration of the IEEE Electron Devices Society, followed by a keynote talk on “Micro to Nano Semiconductor Devices and Applications” on 16th September 2021. The keynote address was delivered by Dr. D. Nirmal from the IEEE EDS Coimbatore Chapter, Madras Section, who shared valuable insights on semiconductor device technologies and their evolving applications from micro to nano scales.



The poster for the 'Inauguration of IEEE Electron Devices Society' event features a blue and orange color scheme. It includes the Sairam logo and accreditation logos at the top. The main title 'SAI RAM ENGINEERING COLLEGE' is at the top left. The event is organized by the Department of Electrical & Electronics Engineering in association with the IEEE. The central graphic shows a circuit board with a microchip, with the text 'Inauguration of IEEE ELECTRON DEVICES SOCIETY' overlaid. Below this, it specifies a 'KEY NOTE TALK ON MICRO TO NANO SEMICONDUCTOR DEVICES AND APPLICATION'. The event details state it is hosted on Zoom on 16.09.2021, Thursday, from 2:30 pm to 4:00 pm. The resource person is Dr. D. NIRMAL, IEEE EDS COIMBATORE CHAPTER, Madras section, Professor & Head, Dept of Electronics and Communication Engineering, Karunya Institute of Technology and Sciences, Coimbatore, with a small portrait photo. At the bottom, a list of faculty members and their roles is provided.

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DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING

in association with  
**IEEE**

**Inauguration of  
IEEE ELECTRON DEVICES  
SOCIETY**

**KEY NOTE TALK ON  
MICRO TO NANO SEMICONDUCTOR  
DEVICES AND APPLICATION**

Hosting on **Zoom**  
16.09.2021, Thursday  
@ 2:30 pm to 4:00 pm

Resource Person  
**Dr. D. NIRMAL**  
IEEE EDS COIMBATORE CHAPTER, Madras section  
Professor & Head,  
Dept of Electronics and Communication Engineering,  
Karunya Institute of Technology and Sciences, Coimbatore

Mr. P. Shanmugasriya, HOD/EEE, SEC PES SBC.  
Dr. R. Ashwagunagan, HOD/EEE.  
Dr. A. Rajendra Prasad, Principal.  
Dr. K. Porkumar, Director, Sairam Institutions.  
Shri. Sai Prakash Leomuthu, Chairman & CEO, Sairam Institutions.



# GUEST LECTURE /WORKSHOP

**Skillrack Orientation Program – 25.09.2021**



The poster for the Skillrack Orientation Program features the SAI RAM ENGINEERING COLLEGE logo at the top, along with various accreditation logos (RAISE, EONS, AICTE, NVA, NTA, NMC, NIOS, NTA, NMC, NIOS). The main title is "SKILLRACK ORIENTATION PROGRAM" in large white letters on a blue background. Below the title, it says "Hosting on Zoom 25.09.2021, Saturday @ 6.30 PM to 7.30 PM". Underneath, it lists "Alumni Speakers" with two profiles: Mr. Shiva Ram N., Web Developer at Zoho Corp. Pvt. Ltd., and Mr. J. Sidharthan, Software Engineer at Prodapt Solutions Pvt. Ltd. At the bottom, there is a row of five names: Ms. V. Malini (Co-ordinator), Dr. R. Anugamunagan (HOD/EEE), Dr. A. Rajendra Prasad (Principal), Dr. K. Perikumar (Director, Sairam Institutions), and Shri. Sai Prakash LeoMuthu (Chairman & CEO, Sairam Institutions).

The Department of Electrical and Electronics Engineering, in association with the Skill Development Club, organized a “Skillrack Orientation Program” on 25th September 2021. The session was conducted by Mr. ShivarRam N., Web Developer at Zoho Corp. Pvt. Ltd., and Mr. J. Sidharthan, Software Engineer at Prodapt Solutions Pvt. Ltd., who provided an overview of the Skillrack platform and its benefits in enhancing programming and problem-solving skills.

## ONE DAY TRAINING SESSION ON PCB FABRICATION - 25/09/2021

The Department of Electrical and Electronics Engineering at Sri Sairam Engineering College, in association with the Skill Development Club, organized a one-day training session on “PCB Fabrication” on 25th September 2021. The session was conducted through Google Meet by Mr. Raja, Product Development Engineer at Silicon System, Coimbatore, who created awareness about PCB design and fabrication processes.



The poster for the One Day Training Session on PCB Fabrication features the SAI RAM ENGINEERING COLLEGE logo at the top, along with various accreditation logos (RAISE, EONS, AICTE, NVA, NTA, NMC, NIOS, NTA, NMC, NIOS). The main title is "ONE DAY TRAINING SESSION PCB FABRICATION" in large white and yellow letters on a green background. Below the title, it says "Hosting on Google Meet 25.09.2021, Saturday @ 6.00 PM to 7.00 PM". Underneath, it lists the "Trainer Mr. Raja, Product Development Engineer, Silicon Systems, Coimbatore". At the bottom, there is a row of five names: Ms. V. Malini (Co-ordinator), Dr. R. Anugamunagan (HOD/EEE), Dr. A. Rajendra Prasad (Principal), Dr. K. Perikumar (Director, Sairam Institutions), and Shri. Sai Prakash LeoMuthu (Chairman & CEO, Sairam Institutions).



# GUEST LECTURE /WORKSHOP

“IEEE Day 2021 – TECHPILLA” - 05/10/2021



In Association with  
IEEE PES SB Chapter  
WIE Affinity Group  
Sairam  
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An Autonomous Institution  
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DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING

IEEE DAY  
TECHPILLA  
As a part of IEEE DAY 2021 Celebrations  
05.10.2021, Tuesday | 2.00 PM | SSR Hall

Dr. M. Venkateshkumar  
Vice Chair - IEEE PES Madras Section  
Associate Editor, IEEE Access Journal  
Assistant Professor (Sr. Grade)  
Amrita School of Engineering, Chennai

Co-ordinators: Dr. B. Meenakshi, Advisor, WIE Affinity group | Ms. P. Shanmugapriya, Advisor, IEEE EDS

Dr. R. Ashgumurugan  
HOD/EEE  
IEEE DAY AMBASSADOR

Dr. A. Rajendra Prasad  
Principal

Dr. K. Porkumaran  
Director  
Sairam Institutions

Shri. Sai Prakash LeoMuthu  
Chairman & CEO  
Sairam Institutions

RAISE FOMS  
ARISA  
nirf  
ios  
GOALS

The Department of Electrical and Electronics Engineering, in association with the IEEE PES SB Chapter and WIE Affinity Group, celebrated “IEEE Day 2021 – TECHPILLA” on 5th October 2021. The event featured a special address by Dr. M. Venkateshkumar, Vice Chair of IEEE PES Madras Section and Associate Editor of the IEEE Access Journal, and Assistant Professor (Senior Grade) at Amrita School of Engineering, Chennai, who shared his insights on advancements in electrical and electronic engineering.

## Workshop on “Entrepreneurship and Innovation as Career Opportunity” – 24.11.2021

The Department of Electrical and Electronics Engineering, in association with the Institution Innovation Council (SEC-IIC) and the Entrepreneurship Development Cell (EDC), conducted a workshop on “Entrepreneurship and Innovation as a Career Opportunity” on 24th November 2021. The session was delivered by Ms. Gunavathi Gunasekaran, Electromagnetic Design Engineer at TAV Systems Pty Ltd, Australia, who shared valuable insights on pursuing entrepreneurship and innovation as a promising career path.



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DEPT. OF ELECTRICAL & ELECTRONICS ENGINEERING

In association with  
Institution Innovation Council (SEC-IIC)  
&  
Entrepreneurship Development CELL (EDC)

Expert Talk by

Ms. GUNAVATHI GUNASEKARAN  
Electromagnetic Design Engineer  
TAV Systems Pty Ltd, Australia

Workshop on  
ENTREPRENEURSHIP  
AND INNOVATION  
as Career Opportunity

Hosting on ZOOM  
24.11.2021, Wednesday  
@ 6.00 pm

Meeting ID: 8754502221 Pass Code: seciic

Mr. J. Harinarayanan  
IIC Programme  
Co-ordinator

Dr. R. Ashgumurugan  
HOD/EEE

Dr. K. Porkumaran  
Principal

Shri. Sai Prakash LeoMuthu  
Chairman & CEO  
Sairam Institutions



# GUEST LECTURE /WORKSHOP

Value added course on PCB DESIGN USING KICAD – 14/12/2021  
to 18/12/2021

The poster is for a value-added course titled "VALUE ADDED COURSE ON PCB DESIGN USING KICAD" for second-year students, held from 14.12.2021 to 18.12.2021 at the Hands-on Training Centre. The course is led by Mr. E. Arunkumar, Vice President of Retech Solutions Pvt Ltd. The poster features logos for Sairam Engineering College, Department of Electrical & Electronics, IEEE, WIE, and Retech Solutions Pvt Ltd. It also lists several faculty members and their roles.

The Department of Electrical and Electronics Engineering, in association with the IEEE PES SB Chapter, WIE Affinity Group, IEEE EDS Student Branch Chapter, and IE(I), conducted a Value-Added Course on “PCB Design using KiCad” for second-year students at the Hands-on Training Centre. The session was handled by Mr. E. Arunkumar, Vice President of Retech Solutions Pvt. Ltd., on 14th December 2021 to 18th December 2021 who provided practical training on PCB design using the KiCad software.

## WEBINAR ON WIND ACCESS TO SUSTAINABLE AND MODERN ENERGY – 15/06/2021

The poster is for a webinar titled "Webinar on WIND ACCESS TO SUSTAINABLE AND MODERN ENERGY" organized by the ENSAV Club of Sri Sairam Engineering College on 15.06.2021. The webinar is hosted on Zoom at 5:00 PM with a meeting ID of 875 450 2221 and a passcode of green9. The expert speaker is Dr. V. Kirubakaran, Director - In Charge, Centre for Rural Energy, Gandhigram Rural Institute. The poster also features logos for Sairam Engineering College, ENSAV Club, and Green9.

The ENSAV Club of Sri Sairam Engineering College organized a webinar on “Wind Access to Sustainable and Modern Energy” on 15 June 2021 to mark Global Wind Day, aligning with SDG 7 and SDG 11. The session was delivered by Dr. V. Kirubakaran, Director (In-Charge), Centre for Rural Energy, Gandhigram Rural Institute. He highlighted the role of wind energy in ensuring clean, sustainable, and accessible power for the future.

Your paragraph text



# STUDENT ACHIEVEMENTS

## ENERGY CONSERVATION DAY - 2021



The Department of Electrical and Electronics Engineering, in association with the IEEE PES SB Chapter AND IGEN conducted an Awareness Program on -++Energy Conservation day 2021. Students also performed a street play to show how careless use of electricity leads to energy wastage. Through this play, we explained simple ways people can save electricity at home, such as using LED bulbs, turning off fans and lights when not needed, and using renewable energy sources.



# FACULTY PUBLICATIONS

## (June-December 2021)

**Faculty Name :** Dr.P.SHANMUGAPRIYA

**Journal/Conference :**

AIP Conference Proceedings – Nov 2021

**Title :**

Optimizing Sensor Deployment Strategy for Large-Scale Internet of Things Using Artificial Bee Colony

**Faculty Name :** MOHAN S

**Journal/Conference :**

1. ICCCT 2021 – Dec 2021

2. Advances in Parallel Computing – 2021

**Title :**

1. Photovoltaic Fed Flyback Converters Using Improved Perturb and Observe Algorithm Online Transformer Monitoring System

**Faculty Name :** Dr.B.MEENAKSHI

**Journal/Conference :**

1. Journal of Physics: Conference Series – Jul 2021

2. Journal of Physics: Conference Series – Jun 2021

**Title :**

1. Fault Detection in Wind Farm Turbine Using Machine Learning Based on SVM Algorithm

2. Designing and Commissioning of Heat Pumps for Hybrid Heating Using Solar Panels

3. Intelligent MPPT Control for Wind Energy Conversion Systems Based on Reinforcement Learning



# FACULTY PUBLICATIONS

## (June-December 2021)

**Faculty Name :** Dr.T.PORSELVI

**Journal/Conference :**

1. Journal of Physics: Conference Series (Jun 2021)
2. 2nd Global Conference for Advancement in Technology (GCAT 2021) – Oct 2021
3. Journal of Physics: Conference Series – Jun 2021
4. 2021 4th International Conference on Computing and Communications Technologies (ICCCT 2021) – Dec 2021

**Title :**

1. Grid Connected Bidirectional Converter Based EMS System with Model Predictive Control
2. PV System Based Induction Motor with Landsman Converter Using IFOC Controller
3. Improved Prediction of Wind Speed Using Machine Learning
4. PV Based Multilevel Inverter with 15 Levels Using POD Control Method
5. IoT Implementation – A Comparative Study

**Faculty Name :** Dr.P.SHANMUGAPRIYA

**Journal/Conference :**

1. Journal of Electrical Engineering and Technology – November 2021
2. 4th International Conference on Computing and Communications Technologies (ICCCT 2021) – December 2021

**Title :**

1. Flexible Dispatch Strategy Adopted by Optimizing DG Parameters in a Real Time Power System Distributed Network
2. Power Plant Automation Using SCADA in a Gas Insulated Substation
3. Optimal Placement of Distribution Generator by Incorporating Demand Response Strategy for Residential and Industrial Users



# FACULTY PUBLICATIONS

## (June-December 2021)

**Faculty Name :** RAJKUMAR K

**Journal/Conference :**

1. Engineering Science and Technology: An International Journal – August 2021

**Title :**

1. Control of Transformerless T-Type DVR Using Multiple Delayed Signal Cancellation PLL Under Unbalanced and Distorted Grid Condition
2. IoT Based Battery Thermal Monitoring in E-Vehicle System

**Faculty Name :** KURINJIMALAR L

**Journal/Conference :**

1. Journal of Electrical Engineering and Technology – June 2021
2. 4th International Conference on Computing and Communications Technologies (ICCCT 2021) – December 2021

**Title :**

1. Analysis of Electromagnetic and Vibration Characteristics of a Spoke Type PMSM Motor
2. Screw Propelled Autonomous Amphibian Waste Collector



# FACULTY PATENT

## (June-December 2021)

**Faculty Name :** Dr.SASWATI KUMARI BEHERA

**Title :** Intelligent Waste Classifying Bin for Eco-Friendly Bio Composting

**Application Number :** 202141030061

**Date of Filing :** 05-07-2021

**Date of Publication :** 16-07-2021

**Status :** Published

**Faculty Name :** MOHAN S

**Title :** Optimization of New Product Development Cycle through Fuzzy Logic

**Application Number :** 202141025443

**Date of Filing :** 08-06-2021

**Date of Publication :** 25-06-2021

**Status :** Published

**Faculty Name :** JEEVA C

**Title:** Gateway Clustering Energy Efficient Centroid Integrated Protocol for Wireless Sensors to Increase Productivity in the Agriculture Field

**Application Number :** 202141035772 A

**Date of Filing :** 07-08-2021

**Date of Publication :** 13-08-2021

**Status :** Published



# FACULTY PATENT

## (June-December 2021)

**Faculty Name :** Dr. R.AZHAGUMURUGAN

**Title :** Smart Vehicle Run by Renewable Energy Generator

**Application Number :** 348506-001 (Design Patent)

**Date of Filing :** 27-08-2021

**Date of Publication :** 27-08-2021

**Status :** Published

**Faculty Name :** V. MALINI

**Title:** High Secured Remote Patient Monitoring System using IoT, Cloud Computing and AI

**Application Number :** 202141044795

**Date of Filing :** 02-10-2021

**Date of Publication :** 15-10-2021

**Status :** Published

**Faculty Name :** Dr.P.SHANMUGAPRIYA

**Title :** IoT Based Energy Management System in Microgrid using LoRaWAN

**Application Number :** 202141049030

**Date of Filing :** 27-10-2021

**Date of Publication :** 26-11-2021

**Status :** Published

**Faculty Name :** Dr.A.SANJEEVI GANDHI

**Title:** Virtual Instrumentation Based Automatic Fabric Defect Detection System

**Application Number :** 202141053821

**Date of Filing :** 23-11-2021

**Date of Publication :** 10-12-2021

**Status :** Published





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**Mr. MOHAN S**

*Assistant Professor*  
Electrical and Electronics Engineering

### STUDENT EDITOR TEAM

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*III Year*  
Electrical and Electronics Engineering

**HARISH R**

*IV Year*  
Electrical and Electronics Engineering

**KHUSHI P**

*IV Year*  
Electrical and Electronics Engineering

**NITHISH S**

*III Year*  
Electrical and Electronics Engineering





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