# SRI MANAKULA VINAYAGAR

# ENGINEERING COLLEGE

## An Autonomous Institution

23 years of ACADEMIC EXCELLENCE



# "ELECTIC"

## NEWSLETTER

# DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

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## ACCREDITED BY:

ACCREDITED WITH GRADE **A** NAAC

NBA NATIONAL BOARD OF ACCREDITATION

TATA CONSULTANCY SERVICES

# ABOUT THE DEPARTMENT



The department of Electrical and Electronics Engineering was established in the year 1999 with a sanctioned intake of 40. With its strenuous effort shown in academics and extra-curricular activities, the department magnifies gradual growth in its intake to 60 in the academic year 2001, upgraded to120 in 2004 and elevated to 180 in 2011. In its long haul, with a vision of providing finest postgraduate programme, the department introduced M.Tech in Power Electronics and Drives with an intake of 18. To add jewel in the crown, the department received research center in the academic year 2020-2021 for promoting research attitude among the young aspirants. In the quality check of NBA, the department has been accredited in 2 cycles which is valid up to 30th June 2022.

The department is unique in its own ways by promoting excellence in Electrical Engineering and fulfilling its role in the era of new millennium and meets the needs and demands of various industrial sectors. With the intent of instilling research approach among students, the department is heedful in Research &Development projects funded by governmental organizations such as DST and MHRD. In its augmentation, the department involves in collaborative research with industries such as LED forse India, ARR KAY controls, Radiance India, Kailash transformers, Sree Rajeswari Intechs and coupled with its gradual proliferation, the department has signed MoU with Pantechpro Ed., Aurotech transformers, Appasamy associates, Surya enterprises, Abirami Enterprises. In Conjunction with Appasamy associates and Pantechpro Ed, the department has established Industry supported laboratories for the glorification of students.

With determined hope and optimism, the department has dedicated and well qualified faculty members who manifested to be specialized in Power Systems, Power Electronics and Drives, Electrical Machines, Embedded Systems, Renewable Energy, Electric Vehicle etc. with a strive of establishing a Centre of excellence in technical education which in turn will bring out technocrats with extraordinary skills and societal commitment.

Along with the specialization, the department is intense inproviding updated curriculum by covering the emerging areas like Renewable Energy Systems, Embedded System, Electric Hybrid Vehicle, Industrial Automation and Control and Artificial Intelligence. Besides, the students are replenished with advanced international courses for enhancing their technical skills and programming abilitiesto get acquainted with new trends in technology and develop overall potential of the students in diversified aspects.

# VISION OF THE INSTITUTE

To be globally recognized for excellence in quality education, innovation and research for the transformation of lives to serve the society.

# MISSION OF THE INSTITUTE

- **M1: Quality Education:** To provide comprehensive academic system that amalgamates the cutting edge technologies with best practices.
- **M2: Research and Innovation:** To foster value-based research and innovation in collaboration with industries and institutions globally for creating intellectuals with new avenues.
- **M3: Employability and Entrepreneurship:** To inculcate the employability and entrepreneurial skills through value and skill based training.
- **M4: Ethical Values:** To instill deep sense of human values by blending societal righteousness with academic professionalism for the growth of society.

# VISION OF THE DEPARTMENT

To promote proficiency in the field of Electrical and Electronics Engineering by creating a stimulating environment for research, innovation and entrepreneurship.

# MISSION OF THE DEPARTMENT

- **M1: Quality Education:** To impart high quality technical education with problem solving capabilities by innovative pedagogy in emerging technologies.
- **M2: Industrial and Societal needs:** To cater the dynamic needs of the industry and society by strengthening industry-institute interaction.
- **M3: Research and Innovation:** To nurture the spirit of research attitude by carrying out innovative technologies pragmatically.
- **M4: Placement and Entrepreneurship:** To inculcate the professionalism in career by advancing synergetic skills to compete in the corporate world.

# PROGRAMME EDUCATIONAL OBJECTIVES (PEOs)

### PEO1: Professional Knowledge
To possess strong educational foundation in Electrical and Electronics Engineering to attain successful career with professional responsibility.

### PEO2: Innovative Skills
To enrich the skills to design and develop innovative solutions for engineering problems in a multidisciplinary environment.

### PEO3: Ethics
To actively embrace leadership qualities for achieving professional goals with ethical values.

### PEO4: Adaptability
To enhance intellectual competency along with technical skills by adapting to the current trends through eternal learning.

# PROGRAMME SPECIFIC OUTCOMES (PSOs)

### PSO1: Core Proficiency
Utilize the engineering core knowledge to identify, formulate, design, and investigate the complex engineering problems of power electronics, electrical machines and power systems.

### PSO2: Cutting Edge Technologies
Explore the new cutting edge technologies in the field of Electric vehicle, Automation, Artificial Intelligence, Robotics and Renewable Energy to compete in global market.

### PSO3: Design and Evolution
Capability to comprehend the technological advancements with the usage of modern design tools for analysing and designing systems to confront the rapid pace of industrial innovations.

# PROGRAMME OUTCOMES (POs)

**PO1: Engineering Knowledge:**
Apply knowledge of mathematics, science, engineering fundamentals and an engineering specialization to the solution of complex engineering problems.

**PO2: Problem Analysis:**
Identify, formulate research literature and analyze complex engineering problems reaching sustainable conclusions using first principles of mathematics, natural sciences and engineering sciences.

**PO3: Design and Development of Solutions:**
Design solutions for complex engineering problems and design components or processes that meet specified needs with appropriate consideration for public health and safety, and cultural, societal and environmental considerations.

**PO4: Conduct Instigations of Complex Problems:**
Use research based – knowledge and research methods including design of experiments, analysis and interpretation of data and synthesis of information to provide valid conclusions.

**PO5: Modern Tool Usage:**
Create, select and apply appropriate techniques, resources and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.

**PO6: The Engineer and Society:**
Apply reasoning informed by contextual knowledge to assess societal, safety, health, legal and cultural issues and the consequent responsibilities relevant to professional engineering practice.

# PROGRAMME OUTCOMES (POs)

**PO7: Environment and Sustainability:**
Understand the impact of professional engineering solutions in societal and environmental contexts and demonstrate knowledge of and need for sustainable development.

**PO8: Ethics:**
Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

**PO9: Individual and Team Work:**
Function effectively as an individual and as a member or leader in diverse teams and in multi disciplinary settings.

**PO10: Communication:**
Communicate effectively on complex engineering activities with the engineering community and society at large, such as being able to comprehend and write effective reports and design documentation, make effective presentations and give and receive clear instructions.

**PO11: Project Management and Finance:**
Demonstrate knowledge and understanding of engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multi disciplinary environments.

**PO12: Life – long Learning:**
Recognize the need for and have the preparation and ability to engage in independent and life-long learning broadest context of technological change.

# GOLD MEDALISTS & UNIVERSITY RANK HOLDERS
## Under Graduate



**ANBARASI.V**
**2015-2019**

**ABIRAMI.P**
**2014-2018**

**ANBARASI.D**
**2011-2015**

**SWATI.V**
**2010-2014**

**JANARTHANAN.J**
**2009-2013**

**AVINASH MURALI NAIR**
**2008-2012**

**SOWMYA.M**
**2007-2011**

**GANESAN.A**
**2006-2010**

**SHANMUGAM.R**
**2005-2009**

**AARTHY.M**
**2004-2008**

**VINOTH.P**
**2000-2004**

# GOLD MEDALISTS & UNIVERSITY RANK HOLDERS
## Post Graduate

**Abinaya**
**Saraswathy.T**
**2011-2013**

**Sangeetha.T**
**2015-2017**

**Vesali.V**
**2017-2019**

# Under Graduate students university rank list year wise

| Batch | Total Ranks | Ranks Obtained |
|---|---|---|
| 2015-2019 | 9 | 1,2,3,5,6,7,8,9,10 |
| 2014-2018 | Yet to be announced | 1(Gold medal) |
| 2013-2017 | 4 | 2,3,4,6 |
| 2012-2016 | 5 | 2,3,4,6,7,8 |
| 2011-2015 | 5 | 1,2,6,7,10 |
| 2010-2014 | 9 | 1,3,5,6,10,11,12,12,14 |
| 2009-2013 | 10 | 1,2,4,5,6,7,9,11,12,13 |
| 2008-2012 | 7 | 1,2,4,9,13,14,15 |

# Post Graduate students university rank list year wise

| Batch | Total Ranks | Ranks Obtained |
|---|---|---|
| 2017-2019 | 3 | 1,2,3 |
| 2015-2017 | 2 | 1,2 |
| 2014-2016 | 1 | 1 |
| 2013-2015 | 6 | 2,3,4,6,7,9 |
| 2012-2014 | 6 | 2,4,5,7,9 |

## Placement Percentage

| Batch | Placement percentage% |
|---|---|
| 2017-2021 | 97.22 % |
| 2016-2020 | 96.49% |
| 2015-2019 | 95.58% |
| 2014-2018 | 94.39% |

## University Pass Percentage

| Batch | University pass percentage % |
|---|---|
| 2017-2021 | 98.2 % |
| 2016-2020 | 100 % |
| 2015-2019 | 87.3 % |
| 2014-2018 | 87.5% |

# IEEE Guest Lecture



Dr.G.K. Sathish Kumar, Manager, R&D (Power Electronics), Manatec E-Drive. Pvt. Ltd., Puducherry in association with SMVEC-IEEE Student Branch has delivered a guest lecture titled "Electric Vehicle-Future and Challenge" to our EEE students on 21$^{st}$ February, 2022.

# Guest Lecture
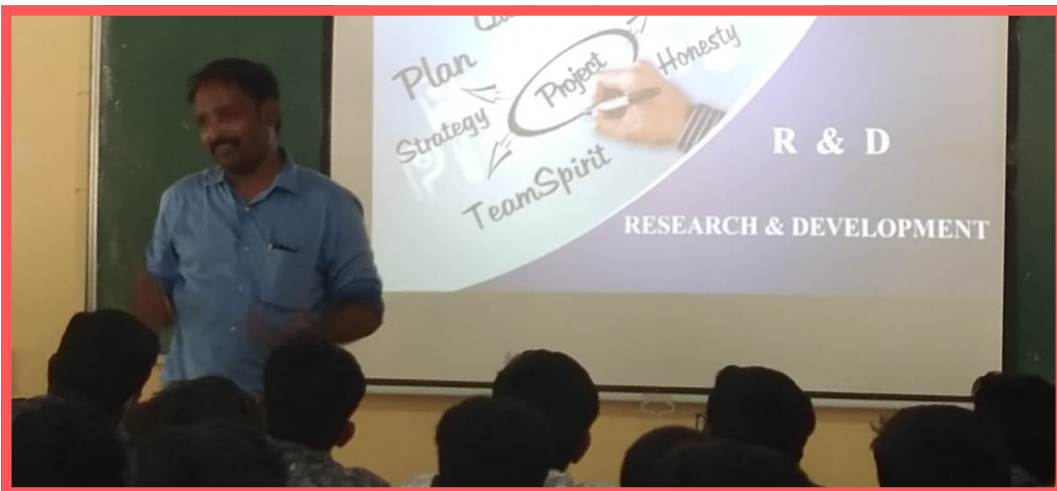


Mr.P. Jayakumar, JS ARA Tech, Design Project Consultant delivered a guest lecture to our students from third year on "Innovative Product Development", putting them into picture with the scenario regarding Patenting, Copyrights and his experiences on 25$^{th}$ February, 2022.

# International certification courses
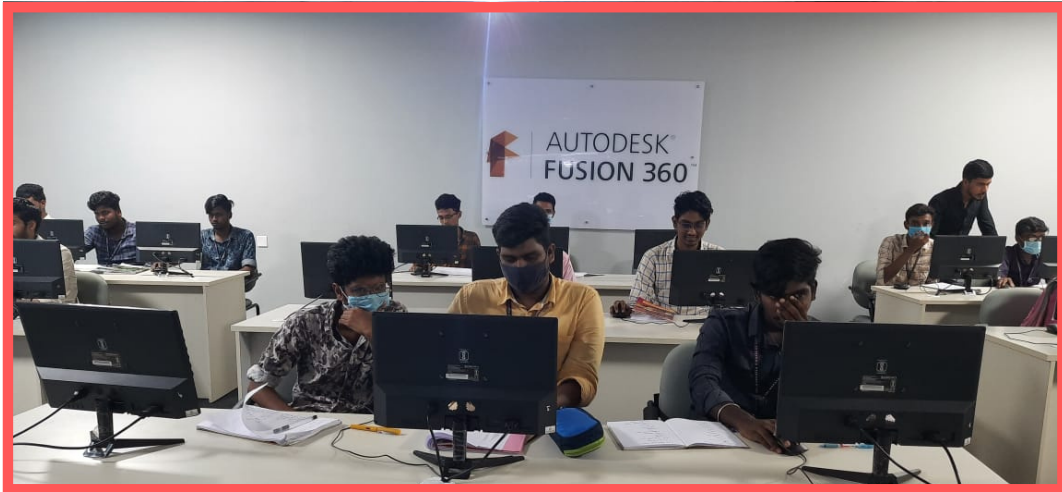


International certification courses were conducted for our III year students in the areas of "Java Programming" in order to enhance the Technical skills of our students by Train lab Academy Ethnotech solutions from 28-02-2022 to 05-03-2022.

# IEEE Guest Lecture



Dannie Ambrose, Senior Architech-UX in association with SMVEC-IEEE Student Branch has delivered a guest lecture titled "Introduction to UX Design Process & Its Impact" to our students on 4th March, 2022.
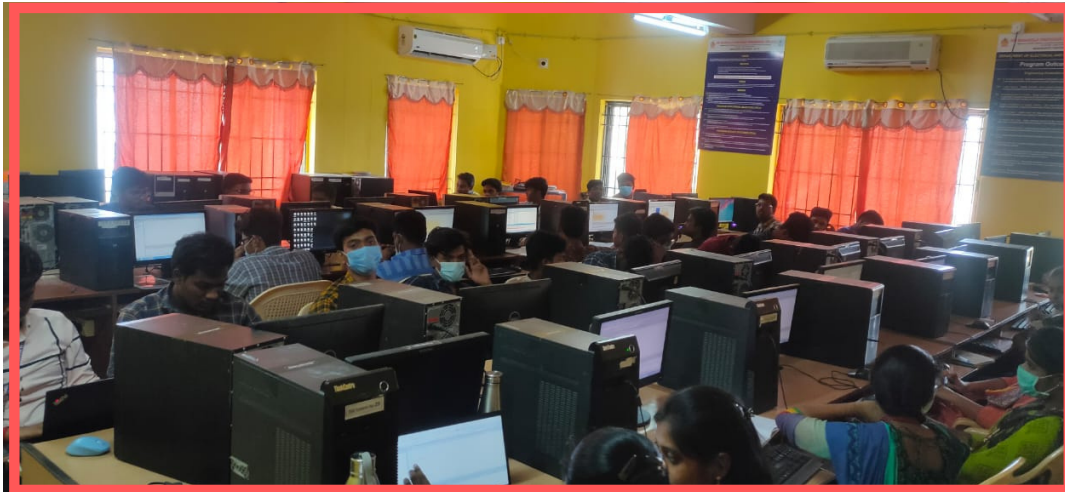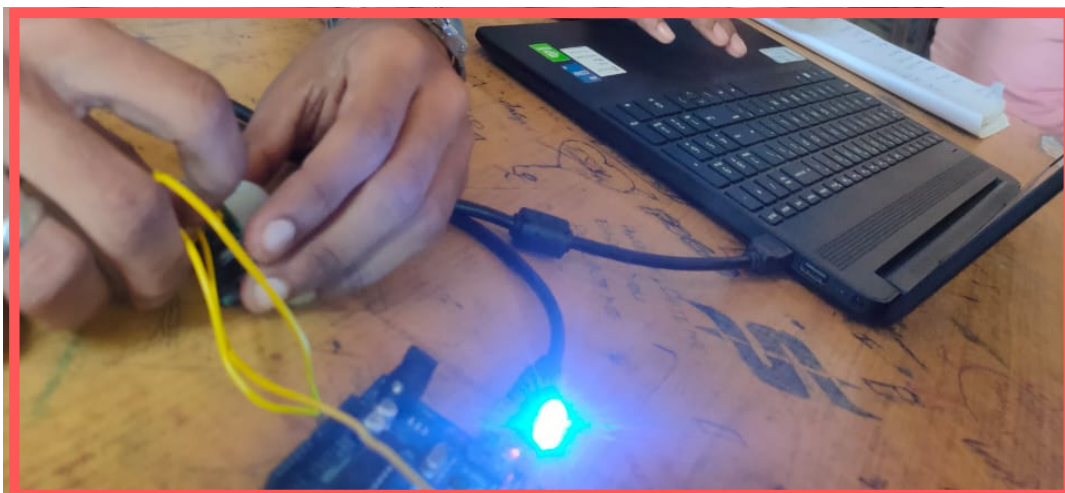
# CLUB ACTIVITIES



In-house club activities were conducted for first, Second and Third year students on every Saturday in various topics through **Basic Electrical and Electronics Club**.



In-house club activities were conducted for first, Second and Third year students on every Saturday in various topics through **Hackathon Club**.

In-house club activities were conducted for first, Second and Third year students on every Saturday in various topics through **Programmers Club**.



In-house club activities were conducted for first, Second and Third year students every Saturday on various topics in the **Embedded Systems Club**.

In-house club activities were conducted for first, Second and Third year students on every Saturday in various topics through **Literary Club**.



In-house club activities were conducted for first, Second and Third year students on every Saturday in various topics through **Renewable and Power Electronics Club**.

# DRAWING COMPETITION - WORLD WATER DAY



Our Students of third year have participated in Drawing Competition conducted on World Water Day in association with Institute of Engineers (India) on 19$^{th}$ March, 2022 (Saturday).

# INDUSTRIAL VISITS



Our Second year students went for an Industrial Visit to new Tirupur Area Development Corp., Erode on 19-03-2022 (Saturday).



Our First year students went for an Industrial Visit at PENTAGON Switch Gear Pvt. Ltd. Coimbatore on 18-03-2022.

Our Third year students went for an Industrial Visit to Kerala State Electronics Development Corporation, Kerala on 01-04-2022, Friday.

# SMART INDIA HACKATHON



Our Students of First, Second, Third year, EEE have participated in the Internal Hackathon in Institute level for Smart India Hackathon.

# NSS



Our department has conducted NSS activities on every Thursday.

# EDITORIAL BOARD MEMBERS

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