### **ISSUE 21**

### ENERGETICS EEE NEWS LETTERS K.S.R. COLLEGE OF ENGINEERING (Autonomous) TIRUCHENGODE – 637 215

#### Vision of the Institution

### 30.12.2024

**IV** We envision to achieve status as an excellent educational institution in the global knowledge hub, making self-learners, experts, ethical and responsible engineers, technologists, scientists, managers, administrators and entrepreneurs who will significantly contribute to research and environment friendly sustainable growth of the nation and the world.

#### Mission of the Institution

- **IM 1** To inculcate in the students self-learning abilities that enable them to become competitive and considerate engineers, technologists, scientists, managers, administrators and entrepreneurs by diligently imparting the best of education, nurturing environmental and social needs.
- **IM 2** To foster and maintain mutually beneficial partnership with global industries and Institutions through knowledge sharing, collaborative research and innovation.

### Vision of the Department / Programme: (Electrical and Electronics Engineering)

**DV** We envision a Department that leads in the field of Electrical and Electronics Engineering through education, training and research committed to influence the direction of the field and make a constructive contribution to society wherein the Department can thrive and grow.

### Mission of the Department / Programme: (Electrical and Electronics Engineering)

DM 1	To create professionally	competent and resourceful	Electrical and Electronics Engineers.
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**DM 2** To promote excellence in teaching, pioneering research and innovation for a sustainable growth of the nation and enrichment of humanity.

#### **Programme Educational Objectives (PEOs) : (Electrical and Electronics Engineering)**

#### The graduates of the programme will be able to

- **PEO 1** Employability and Higher studies: Excel in professional career and/or higher education by acquiring knowledge in basic engineering, science and mathematics in Electrical and Electronics Engineering.
- **PEO 2** Sustainable Engineering Solutions: Develop and apply engineering solutions for solving contemporary social and human issues with realistic constraints through modern tools.
- **PEO 3** Interpersonal and Ethical Proficiency: Exhibit professional and ethical standards, effective communication skills, teamwork spirit and multidisciplinary approach for successful careers in Indian and Multinational companies and to engage in lifelong learning.

Program	n Outcomes (POs)
	Engineering Graduates will be able to:
PO1	<b>Engineering Knowledge:</b> Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
PO2	<b>Problem Analysis:</b> Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
PO3	<b>Design/Development of Solutions:</b> Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
PO4	<b>Conduct Investigations of Complex Problems:</b> Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
PO5	<b>Modern Tool Usage:</b> Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations.
PO6	<b>The Engineer and Society:</b> Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
PO7	<b>Environment and Sustainability:</b> Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
PO8	<b>Ethics:</b> Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
PO9	<b>Individual and Team Work:</b> Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
PO10	<b>Communication:</b> Communicate effectively on complex engineering activities with the engineering community and with 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	<b>Project Management and Finance:</b> Demonstrate knowledge and understanding of the 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 multidisciplinary environments.
PO12	<b>Life-long Learning:</b> Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.
Program	n Specific Outcomes (PSOs)
PSO1	<b>Proficiency in Core:</b> Realize the generation, transmission, distribution and utilization of electrical power.
PSO2	<b>Professional Skill:</b> Formulate the testing procedures needed to make the measurements of electrical and electromagnetic quantities and to provide solutions to the real time problems.

## CONTENTS

- Faculty Achievements
  Department Activities
  Students Activities

- ➢ Info Corner

### FACULTY ACHIEVEMENTS **Faculty Publications:**

SI · N o	Title of the Paper	Name of the Author/s	Name of the Journal	Vol No, Issue No & pp	Year and Month of Publicat ion	Categ ory Q1/Q2 / Q3/Q4	UGC Care list/Scop us/Web of Science/o ther
	-		2024-25				
1	Lalitha, B., Lakshmi, K., Karthick, A., & Manoj Kumar, P	Performance analysis of photovoltaic module using eutectic phase change material	Energy Sources, Part A: Recovery, Utilization, and Environmental Effects	Vol.46, no. 1, pp. 14423– 14435. https://doi.org/ 0.1080/155670 6.2024.241777	Octob 1 r 2024 3	()/	Web of Science
2	KanagarajNallaiyaGo under, RamasamyMurugesan , VijayakumarMadhaiy an, ObaidAldosari	A high gain quasi Z- source based full-bridge isolated DC-DC converter with extendable structure for grid-tied/standalone PV system	IET Power Electronics	Vo.17, pp 2134–2149 (2024). https://doi.org/ 0.1049/pel2.12 79	1 Septer	Q2	Web of Science
3	J, Ganesh Moorthy, Jerome Moses M, and Kalaiselvan N	Active power regulation in low voltage grid-tied inverters for rooftop solar PV systems: Progress and future directions	Energy Sources, Part A: Recovery, Utilization, and Environmental Effects	Vol. 46, no.1, pp. 81–104. https://doi.org/ 0.1080/155670 6.2024.239289	Septer ber 3 2024	Q2	Web of Science
4	Senthil Kumar S, Nada Alzaben, Sridevi A, Ranjith V	Improving Quality of Service (QoS) in Wireless Multimedia Sensor Networks using Epsilon Greedy Strategy	Measurement Science Review	Vol. 24, No. 3 pp.113- 117,DOI: 10.2478/msr- 2024-0016	Augus 2024		Web of Science
5	Sharath Kumar D R V A, Rajakumareswaran V., Katuri Rayudu, Vasanthi A., Tharani B., Senthil Kumar R.	Enhancing Ransomware Detection in Cybersecurity: A Comprehensive Ensemble Approach	Journal of Electrical Systems	Vol. 20 No. 10 pp. 5315-5324 DOI: https://doi.org/1 0.52783/jes.622 5	Septer ber 2024	-	Scopus
6	Ganesh MoorthyJagadeesan, ArivoliSundaramurth y, Senthil Kumar P , Sivapragasam J, Sathiya D ,Perumal K	Design and Implementation of Energy-Efficient Lighting Systems in Warehouse Environments Using Dialux	VDI Z IntegriertePro duktion	Vol. 11, no. 10 pp.35-59, DOI: 10.37897 VZIPJ.2024.V 1110.24.40816	Septer ber 1 2024	-	Scopus
7	Ashish A. Mulajkar, Varsha D. Jadhav, Dhananjay R. Dolas, S. Gowtham, Madhuri S. Bhagat, HarshalPatil, P. Satishkumar	Unmanned aerial vehicle resilience: A new approach to fault diagnostics framework	Journal of Autonomous Intelligence	Volume 7 Issu 5, pp.1-17, DOI: 10.32629/jai.v7 5.1637	July		Scopus

# Salient Achievements (Faculty)

S. No	Name of the Faculty	Achievement	Awarded by
1.	Dr.M.Vijayakumar	Award of Excellence in Research	Novel Research Acedamy,Puducheery
2.	Mrs. R. Sacithraa	Thalaivi award	Dindigul district HR foundation
3.	Dr. R. Jeyabharath	AAram Viruthugal 2024-Kalvisar viruthu	AAram seya virumbu Arrakatalai
4.	Mr. P. Manikandan	AAram Viruthugal 2024 - Naalasiriyar viruthu	AAram seya virumbu Arrakatalai
5.	Dr.S.Ramesh	Best paper award	INCOWOCO-2024
6.	Dr.M.Vijayakumar	Best paper award	INCOWOCO-2024

# **Faculty as Participants in Various Programmes**

S.No	Name of the faculty	Title of the Program	Duration From – to	Organized by
1	K.Yamuna	Electric Vehicle Systems and Control	08.07.2024 to 12/07/2024	NITTR,Chennai
2	K.Yamuna A.Vasanthi B.Yuvarani Dr.E.Vani	Emerging Trends in Advanced Engineering Research: Opportunities and Challenges	01.07.2024 to 06.07.2024	Sree Sakthi Engineering College, Karamadai(Coimbatore)
3	S.Dhivagar M.Subramani S.Gowtham E.Kannan	Essential skills for Professional Development in Higher Education	01.07.2024 to 07.07.2024	Star Internation Foundation For Research and Education
4	S.Gowtham	Recent Trends in Computing 4.0	08.07.2024 to 13.07.2024	Vishwakarma Institute of Technology, Pune
5	Dr.C.Santha Kumar	Design of Electric Vehicle Charging System	22.07.24 to 27.07.2024	PSG Institute of Technology and Applied Research- ATAL FDP
6	P Manikandan Dr S Ramesh Dr R Sankarganesh	Hybrid Electric Vehicles Empowering Sustainable Mobility Trough Innovative Engineering	19.08.2024 to 2408.2024	Mahendra Institute of Technology, Mallasamudram- ATAL FDP
7	Dr.S.Rajasekaran	Enhancing Teaching Methodology with MATLAB	24.8.2024,31.9.20 24	K.S.R.College of Engineering- ATAL FDP
8	B.Yuvarani	Artificial Intelligence's Potential Applications In Energy Management And Energy Storage Systems: A Technological Revolution	09.09.2024 to 14.09.2024	KSRCE, Tiruchengode- ATAL FDP
9	Dr.M.Ramasamy Dr.V.Ravi Dr.M.Vijayakumar V. Kiruthiga Devi A.Ravi	Integration of AI and IoT for design of Solar Powered Electric Vehicle charging infrastructure for Greener future	21.09.2024 to 28.09.2024	Erode Sengunthar Engineering College- ATAL FDP
10	Dhivagar S	Research Perspectives on Smart and Sustainable Energy Management Solutions	16.12.2024 to 21.12.2024	PSG Institute of Technology and Applied Research -ATAL
11	S.Gowtham E.Kannan V.Kiruthiga Devi	Integration of AI and IIoT for design of Solar Powered	21.09.2024 to 28.09.2024	Erode Sengunthar Engineering College-

		Electric Vehicle charging infrastructure for Greener future		ATAL FDP
12	Dr.S.Senthil Kumar	Sustainable Engineering Concept and Life Cycle Analysis	July - September 2024	NPTEL
13	M A Stephenraj	Artificial Intelligence and Optimisation Techniques using MATLAB	07.10.2024 to 11.10.2024	NITTTR - Chandigarh
14	Dr.Ganesh Moorthy J	Green Technology	03.11.2024 to 09.11.2024	Periyar University Salem- ATAL FDP
15	Dr.Ganesh Moorthy J	Research Proposal Writing	August 2024	KSRCE
16	R Sacithraa	Indian Knowledge System Organized by IQAC	30.09.2024 to 06.10.2024	Nandha Arts and Science College, Erode-52
17	M A Stephenraj	Organisational Behaviour	July to September	NPTEL FDP
18	M.Subramani	Research Perspectives on Smart and Sustainable Energy Management Solutions	16.12.2024 to 21.12.2024.	PSG Institute of Technology and Applied Research- ATAL FDP
19	K Meenatchi	A Comprehensive overview of Artificial Intelligence Technologies for Quality control in Semiconductor Industries	02.12.24 to 7.12.24	Sasurie college of engineering. Vijayamangalam- ATAL FDP
20	V.Kiruthiga Devi Dr.S.Senthil Kumar Dr.C.Santha Kumar	Renewable Energy and Electric Vehicles Technology for Sustainable Future	16.12.2024- 21.12.2024	J.J.College of Engineering and Technology -ATAL FDP
21	Dr.S.Rajasekaran	Electronic Systems Design Hands-on Circuits and PCB Design with CAD Software	July to September	NPTEL FDP
22	P Manikandan S.Karthik	Organisational Behaviour	July to September	NPTEL FDP
23	Dr P Veena Dr R Jeyabharath S.Karthik	A Comprehensive overview of Artificial Intelligence Technologies for Quality control in Semiconductor Industries	2.12.2024 to 7.12.2024	Sasurie college of engineering. Vijayamangalam- ATAL FDP

### **DEPARTMENT ACTIVITIES** Events organized by the faculty

S. No	Nature of the Program	Title of the Program	Name of the resource person	Date	No of people attended
1.	Seminar	Importance of Human Values in Education	Dr.R.Kannan B.E., M.E., Ph.D., Professor & Head, Department of Mechanical Engineering, PSNA College of Engineering and Technology, Dindigul	27.07.2024	141
2.	Seminar	Powering Tomorrow :Breakthrough Technologies in Electrical Engineering	Mythili.B, Consultant, Daimler Truck Innovation, Centre India Private Limited, Bengaluru.	27.07.2024	121

3.	Seminar	Harnessing Research for Effective Product Development and Innovation	Mr.R.Pravin, M.E, Lead Technical, SAN Technovation, Perundurai	10.08.2024	120
4.	Seminar	LinkedIn Profile creation & Updation	Dr.M.Ramasamy, Assistant Professor, Department of EEE, KSR College of Engineering, Tiruchengode.	10.08.2024 & 10.00am - 10.30am	120
5.	Seminar	Accelerating Innovation: Exploring opportunities in embedded systems.	Mr.S.Karthick, Assistant Professor, Department of EEE, K S R institute for Engineering and Technology, Tiruchengode	24.08.2024 & 10.00am - 12.00pm	120
6.	Seminar	Innovative Career Paths in The Era of Industrial Automation	Mr.J.K.Eswararunprakash Automation Engineer, B.S Teqtronic, Chennai.	24.08.2024	118
7.	Seminar	Eco Equity: Innovative Approaches to Environmental	Mr.V.Vishnugopan, Assistant Manager, Conserve Solution, Tiruchirapalli.	24.08.2024	118
8.	Association Inauguratio n	-	Dr.R.Jeyabharath, Professor/EEE, Director Accredidations and Ranking, KSR College of Engineering.	21.09.2024 & 9.30am- 10.30am	160
9.	Outreach programme 2025	GATE_JAM	Dr.Sathyan Subbaiah, Professor, Department of Mechanical Engineering, IIT-Madras.	21.09.2024 & 2.00pm- 04.00pm	80
10.	Seminar	Empowering Futures: Navigating and Mastering Careers in Electrical and Electronics Engineering	Dr.K.Udhayakumar Professor, Dept. of EEE, Anna University, Chennai	23.09.2024	60
11.	Seminar	Design Thinking	Mr.Anand Babu, Manager, Design Thinker & Facilitator, School of Design Thinking, Chennai.	27.09.2024	110
12.	Seminar	Sensor, Robotics and Automation	Mr.P.Jagadeesh, Head Operations, Gomadhi Engineering Service, Kunnathar	15.10.2024	50
13.	Seminar	Ensuring Electrical Safety in High Voltage Systems: Mitigating Risks for Sustainable Energy Production and Consumption	Mr.R.Gokul Raaju, Safety Officer, Coral Manufacturing Works India Private Limited, Erode.	18.10.2024	110
14.	Seminar	Stepper Motor Technology:Driving innovation in motion	Mr.B.Surendra Reddy Trainer – OHM Institute, Hyderabad	18.10.2024	118

		control			
15.	Intra Paper Presentation	Sparkathon 2k24	-	19.10.2024	258
16.	Seminar	From Ideas To Impact: your Roadmap To Innovation Competition	Mr.S.Dhivagar Assistant Professor, EEE/KSRCE	25.10.2024	62
17.	Seminar	Invent,Innovate,Inspire:Dr iving change through creativity and technology	Mrs.A.Vasanthi Assistant Professor, EEE/KSRCE	26.10.2024	62
18.	Seminar	The Power of Networking: Building Relationships for Entrepreneurial Success	Ms.C.Vidhyapriya Managing Director Vidhya Gurukulam Pre-Schools Chain, Tharamangalam	26.10.2024	133
19.	Seminar	Empowering Innovation throuh IEEE:Membership benefits and Opportunities	Mr.M.Arun Associate Professor, Department of ECE, Panimalar Engineering College, Chennai	09.11.2024	80
20.	Seminar	Navigating Patent Systems: From Idea to Patent	Dr.T.Sureshkumar, Associate Professor, Department of Mechanical Engineering, KSRCE	09.11.2024	66

### MoU

Name of the Organization/Industry	Date of MoU	Nature /Outcome of MoU
Minnotra Energy India Pvt. Ltd., Chennai	11.09.2024	Internship and Placement
Coral Manufacturing works India private limited(CMW)	18.10.2024	Internship and Placement

## **STUDENT ACTIVITIES**

# Awards Received by Students in the Events Organized by Other Institutes

S. No	Name of the Student Achievement		Awarded by	
		Co curricular		
1	Rohit M	Medallion of Excellence	TN sk	tills
2			Adhi	college of Engineering
2	Bhuvaneshwaran.K	1st prize	&tech	nology
3			Vella	college of engineering and
5	Janarthanan S	1st prize	techn	olagy
4			Vella	college of engineering and
Ŧ	Dineshkumar	1st prize	techn	olagy
5			Salem	college of engineering and
5	Bhuvaneshwaran.K	2nd prize	techn	ology
6	Ramanathan G	2nd prize	Vinay	raka misssions research foundation
7			Sri Sa	i Ranganathan Engineering
1	Bhuvaneshwaran.K	1st prize	Colleg	ge, Chennai
8			Vella	college of engineering and
0	Bhuvaneshwaran.K	2nd prize	techn	
9			RP Sa	rathy Institute of
2	Bhuvaneshwaran.K	1st prize	Techr	ology, Salem

10			PAAVAI Engineering College,
10	Hari Annamalai V R	II PRIZE	Namakkal
11	Rohith M	Elite+Silver	IIT-Kharagpur
12	Vasanth J	Elite	IIT-Kharagpur
		Extra curricular	-
	P.Karthick	Best Athletics U20- Won	Namakkal District Athletic Association
1.		GOLD MEDAL in	
		Open Athletic championship	
2.	P.Karthick	Silver medal	CM Trophy
3.	Lavanya D	Bronze Medal	CM Trophy
4.	Sriram P	3rd position	Kongu Engineering college, Erode
-	S.Nannan	1st place in 7th state level	Thamizham silambam
5.		championship	Academy,Cuddalore
6.	P.Karthick	Gold Metal	Anna University Zonal
7.	Sriram P	1st position	KSREI, Nammakkal
8.	Sriram P	Silver medal	
о.			Trichy Anna University, Trichy
9.	Sriram P	3rd position	Paavai Engineering College,
9.			Nammakkal

### **INFO CORNER**



MoU-Minnotra Energy India Pvt. Ltd., Chennai



MoU-Coral Manufacturing works India private limited(CMW), Erode







**Extension Activity** 



ATAL FDP - 09.10.2024 to 14.10.2024



National level technical symposium



Medallion of Excellence from Tamil Nadu Govt.



Awards Received by Students-Co curricular activity

### **Editorial Committee**

Mrs.K.Yamuna Assistant Professor / EEE T.Mugilan III-EEE K. Manoj III-EEE