

**Vision of the Institution**

- 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.
- 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.

## Programme Outcomes (POs) of B.E. - Electrical and Electronics Engineering

Program Outcomes (POs)	
<b>PO1</b>	<b>Engineering Graduates will be able to:</b> <b>Engineering Knowledge:</b> Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
<b>PO2</b>	<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.
<b>PO3</b>	<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.
<b>PO4</b>	<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.
<b>PO5</b>	<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.
<b>PO6</b>	<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.
<b>PO7</b>	<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.
<b>PO8</b>	<b>Ethics:</b> Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
<b>PO9</b>	<b>Individual and Team Work:</b> Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
<b>PO10</b>	<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.
<b>PO11</b>	<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.
<b>PO12</b>	<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 Specific Outcomes (PSOs)	
<b>PSO1</b>	<b>Proficiency in Core:</b> Realize the generation, transmission, distribution and utilization of electrical power.
<b>PSO2</b>	<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

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## FACULTY ACHIEVEMENTS

### Faculty Publications:

Name of the Authors	Title of the paper	Title of the journal	Volume	Page No.	Year
S. Senthilkumar, V. Samuthira Pandi, T. Sripriya and N. Pragadish	Design of recustomize finite impulse response filter using truncation based scalable rounding approximate multiplier and error reduced carry prediction approximate adder for image processing application	Concurrency and Computation: Practice and Experience	Vol. 35, No. 8	pp.e7629 doi: 10.1002/cpe.7629	2023
Karthikeyan S. & Lakshmi K	FPGA Based Integrated Control of Brushless DC Motor for Renewable Energy Storage System	Cybernetics and Systems	Online Published	DOI: 10.1080/01969722.2023.2177799	2023
Manivel, M., & K. Lakshmi	Analysis and Implementation of Switched Capacitor-based Multi-Level Inverter for Electric Vehicles Applications.,	Elektronika Ir Elektrotechnika	Vol.29, No. 1	pp.21-32. <a href="https://doi.org/10.5755/j02.eie.33053">https://doi.org/10.5755/j02.eie.33053</a>	2023
Kesavan, T and Lakshmi, K.	Optimization of a Renewable Energy Source-Based Virtual Power Plant for Electrical Energy Management in an Unbalanced Distribution Network	Sustainability	Vol.14, No.18	pp. 11129 <a href="https://doi.org/10.3390/su141811129">https://doi.org/10.3390/su141811129</a>	2022
R. Arulmurugan, P. Balakrishnan, N. Vengadachalam, V. Subha Seethalakshmi and M. Vijayakumar	An Efficient Modified Z Source Grid Tied Inverter System	International Journal of Electrical and Electronics Research (IJEER)	Vol. 10, No.4	pp.1-4 DOI:10.37391/ijeer.100482	2023
Mr.Vijaykumar M, Chandru.S, Jevitha .G, Selakumar.B , Gowrit.T	Automatic Yarn Breakage Identification Wrapping Machine By Using PLC	International Journal of Advances in Engineering and Management	Vol. 5, No. 3	pp. 1604-1607 DOI : 10.35629/5252-050316041607	2023

Mr.Dhivagar.S, Safrin.T , Thulasiraman.P, Divakar.V, Santhosh.M	Programmable Logic Controller programming and wiring of pills vending machine	International Journal of Advances in Engineering and Management	Vol. 5, No. 3	pp: 1157-1161 DOI: 10.35629/5252- 050316041607	2023
Dr.Senthilkumar S, Ayyandurai P, Dineshwaran K, Gowtham V, Kavin J R	Optimization of boiler operation and maintenance using IOT	International Journal of Advances in Engineering and Management	Vol. 5, No. 3	pp: 1850-1855 DOI: 10.35629/5252- 050318501855	2023
M. Subramani, Kaarthikeyan S, Kabeena K J, Mohan R, Someshkannan V	Intelligent Toll Charge Collection System with Safety Features using Arduino	International Journal of Innovative Research in Engineering	Vol. 4, No. 1	PP: 162-164	2023
Dr.Lakshmi K, Ranjith kumar R, Amol M, Sathish kumar. A, Kiruba karan M	Automatic Path Memorizing Forklift	International Journal of Advances in Engineering and Management	Vol. 5, No.4	pp: 636-641 DOI: 10.35629/5252- 0504636641	2023
Dr. E.Vani, Subash G, Guna M, Nishanth S, Poovarasan M	Pic Microcontroller Based Boiler Monitoring & Controlling System for Power Plant Industry	International Journal of Advances in Engineering and Management	Vol. 5, No. 5	pp: 01-03 DOI: 10.35629/5252- 05050103	2023
Yamuna. K , Kishore. S, Hemnath.V, Naveen. A, Jeevanandham. S	A Multi Sensor Intelligent Device For Real Time Multi Phase Flow Controlling In Thermal Power Plant	International Journal of Advances in Engineering and Management	Vol. 5, No. 4	pp: 463-467 DOI: 10.35629/5252- 0504463467	2023
B.Yuvarani, Hari Vignesh.S, Nalan.R, Sridhar.A, Surya Prakash.S	Smart Greenhouse Control System with Plant Health Monitoring	International Journal of Innovative Research in Engineering	Vol. 4, No. 2	pp. 324-326	2023
Vasanthi.A, Prasanth S, Dinesh Kumar P, Vijay Kumar B, Infant Jennifer R	Programmable Logic Controller Based On Automatic Loom Machine	International Journal of Advances in Engineering and Management (IJAEM)	Vol. 5, No. 3	pp: 1640-1643	March 2023
Dr.S.Ramesh, Mohammed Al Fahad, Prem Prakash S, Kavinraj V, Deepa V	Facial Movement Based Robotic Arm Control Using Arduino and Python	International Journal of Innovative Research in Engineering	Volu. 4, No. 1	PP: 151-154	January- February 2023
Dr.M. Vijayakumar Dr.E.Vani	Renewable Energy	Scientific International Publishing House	Book ISBN : 978-93-5757-270-5		2023

## Faculty Patent Publication

Topic	Inventors	Application No.	Date	Status
Solar Mobile Charger	Mr.S.Gowtham Mr.M.Subramani	364442-001	19/05/2022	Patent Granted

## Faculty as Participants in Various Programmes

Name of the Faculty	Name of the Event/Title	Seminars / Workshops / Conferences/ FDP	Date of the Event	Organized by	Place	No. of days Attended
K. Yamuna	Workshop on IEEE vTools Reporting	Workshop	26.01.2023	IEEE Madras Section	Online	01
Dr.S.Senthil Kumar	NBA Accreditation and Teaching and learning in Engineering (NATE)	FDP	JAN-APR 2023	NPTEL	Online	4Months

## DEPARTMENT ACTIVITIES

### Events organized by the faculty

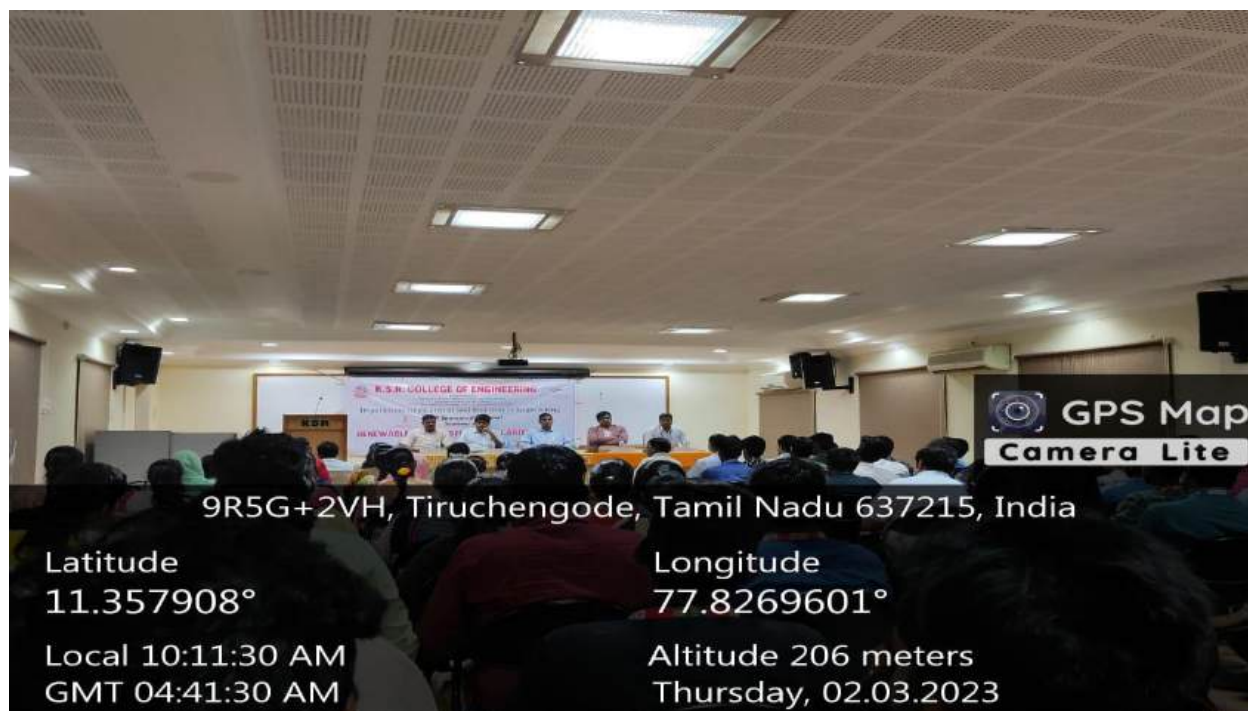
Name of the Coordinators	Title of the Programme	Date		Name of Funding Agency/Chapt er	Resource Person
		From	To		
Dr.S.Senthil kumar Dr.M.Vijayakumar Dr.M.Ramasamy Dr.E.Vani Dr.M.Vijayakumar Mr.S.Gowtham	National Seminar on Renewable Energy Sector as Career Choice	02.03.2023	04.03.2023	ICSSR	1.Dr.V Suresh Babu, Assistant Director, NPTI (PSTI), Ministry of Power (Govt. of India), Bangalore 2. Captain. K.R.Natarajan, Associate NCC officer, K.S.R. College of Engineering ,Tiruchengode 3.M.Sivakumar, Director, NIRT Renewable Energy Pvt. Ltd, Salem, Tamil Nadu. 4. Er.R.Neelamegan, Head - Energy Division, NIRT Renewable Energy Pvt. Ltd, Salem, Tamil Nadu 5. Mr.P.S. Selva Muthukumar, CEO, Green Spark Solar Energy, Erode, Tamil Nadu.

## STUDENT ACTIVITIES

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

S.N o.	Name of students	Name of the Activity	Date	Organized by	Prize/ Award Won
1	Safrin T	Best Outgoing Student	31.03.2023	K.S.R. College of Engineering, Namakkal	I
2	Kanaga R	Oratorical - Tamil	20.02.2023	K.S.R. College of Engineering, Namakkal	II
3.	Lavanya D	RIDDLE MAFIA	11.03.2023	Knowledge Institute of Technology, Salem	III
4.	Lavanya D	Technicla Quiz	11.03.2023	Knowledge Institute of Technology, Salem	III
5.	Megavarshin M	Oratorical - English	20.02.2023	K.S.R. College of Engineering, Namakkal	III

## INFO CORNER



**National Seminar on Renewable Energy Sector as Career Choice on 02.03.2023 to 04.03.2023**



## EEE – Mini Project Expo on 24.03.2023

### Editorial Committee

Dr.D.Gowrisankar  
Assistant Professor / English  
Mrs.K.Yamuna  
Assistant Professor / EEE

Monithkumar. B  
IV Year EEE  
Nivya. R  
IV Year EEE