Department of Electrical and Electronics Engineering KPR Institute of Engineering and Technology



# NEWSLETTER





# **ELECTROBLITZ**

**VOLUME 9, ISSUE 9 September 2023** 

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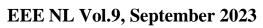


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# VISION AND MISSION OF THE DEPARTMENT

## Vision:

To be a premier centre for quality education, innovation and research in the field of Electrical and Electronics Engineering to meet the global challenges with professional ethics and social consciousness.

## **Mission:**

- Provide a holistic environment to students through knowledge-centric and skill-based education
- Collaborate with industries for effective research and innovation in Electrical Engineering and allied areas
- Enable students to serve the society through prolific ideas with professionalism and ethical values

## **Programme Educational Objectives (PEOs)**

The Graduates of B.E. Electrical and Electronics Engineering, four years after graduation, will

- **PEO1:** Apply the acquired knowledge and skills to meet the emerging needs of the society and also excel in their chosen profession
- **PEO2:** Adapt to emerging technologies and continuously upskill through active research in Electrical Engineering and allied areas
- **PEO3:** Demonstrate leadership skills and practice their profession conforming to ethical and human values

## **Programme Outcomes (POs)**

Graduates of Electrical and Electronics Engineering will be able to:

- **PO1 Engineering Knowledge:** Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
- **PO2 Problem Analysis:** Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
- **PO3 Design/development of Solutions:** 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 Conduct Investigations of Complex Problems:** 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 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 the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
- **PO7 Environment and Sustainability:** Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the 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 multidisciplinary settings.
- **PO10 Communication:** 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 Project Management and Finance:** 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 Life-long Learning:** 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.

### **Programme Specific Outcomes (PSOs)**

The Graduates of Electrical and Electronics Engineering will be able to

- **PSO1:** Analyse, design and test power electronic components integrated withcomputer-based systems to meet industrial and societal needs
- **PSO2:** Deploy modern engineering tools to model, simulate, fabricate and integrate electrical systems with renewable energy to enhance sustainability





# **FACULTY DETAILS**

S.NO	NAME OF THE FACULTY	DESIGNATION
1.	Dr.K.Mohana Sundaram	Professor & Head
2.	Dr.V.S.Chandrika	Professor
3.	Dr.P.Pandiyan	Associate Professor
4.	Dr.A.Karthick	Associate Professor
5.	Dr.C.Pazhanimuthu	Associate Professor
6.	Dr.V.Parimala	Associate Professor
7.	Mr.G.Saravanan	Assistant Professor (Sl.G)
8.	Dr.R.Sampathkumar	Assistant Professor (Sl.G)
9.	Dr.D.Sathish Kumar	Assistant Professor (Sl.G)
10.	Dr.I.Baranilingesan	Assistant Professor (Sl.G)
11.	Dr.S.Ravindran	Assistant Professor (Sl.G)
12.	Dr.A.Rakesh Kumar	Assistant Professor (Sl.G)
13.	Dr.P.Naveen	Assistant Professor (Sl.G)
14.	Dr.T.Ramesh Kumar	Assistant Professor (Sl.G)
15.	Dr.P.Ravikumar	Assistant Professor (Sr.G)
16.	Dr.N.Prakash	Assistant Professor (Sr.G)
17.	Dr.Rangu Seshu Kumar	Assistant Professor (Sr.G)
18.	Ms.B.Lalitha	Assistant Professor (Sr.G)
19.	Ms.R.Revathi	Assistant Professor (Sr.G)
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20.	Mr.A.Mohamed Ibrahim	Assistant Professor (Sr.G)
21.	Mr.V.Kamalkumar	Assistant Professor (Sr.G)
22.	Mr.C.J.Vignesh	Assistant Professor (Sr.G)
23.	Mr.C.Dinesh	Assistant Professor (Sr.G)
24.	Mr.K.Balamurugan	Assistant Professor
25.	Mr.M.Mohana Sundaram	Assistant Professor
26.	Mr.G.Xavier Richards	Assistant Professor

### SUPPORTING STAFF

S.NO	NAME OF THE STAFF	DESIGNATION	
1.	Mr.M.Vinoth Kumar	Technical Officer	
2.	Mr.R.Vinoth Kumar	Technical Officer	
3.	Mr.C.Gobalakrishnan	Lab Technician	
4.	Mr.M.Muthukumar	Lab Instructor	
5.	Mr.M.Karuppusamy	Lab Technician	
6.	Ms.R.Suvalakshmi	Lab Technician	
7.	Mr.M.Soundharrajan	Lab Instructor	
8.	Mr.G.Siva Sankar	Technical Assistant	
9.	Ms.P.Parameshwari	Office Assistant	

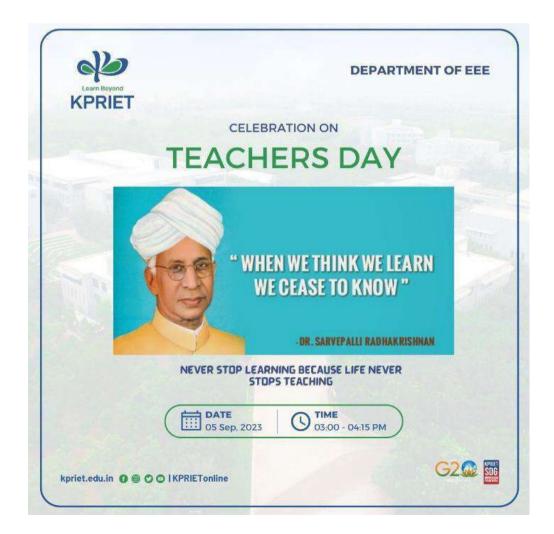




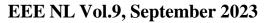
#### **ASSOCIATION ACTIVITIES**

#### **Teachers Day Celebration**

The department of EEE celebrated the Teachers' Day on 05/09/2023 with great enthusiasm in the second-year classroom. The whole program was organized by the second-year students to acknowledge the dedication and hard work of the teachers. Faculty members shared the experiences about "Teacher as a digital instructor for different ways of learning". In this speech explained the importance of educational technologies and the different types of educational technologies. Also described how teachers can facilitate self-learning among students and how they can encourage and help students grow both in the classrooms and clinical settings. Some students also expressed their gratitude towards the teachers by giving short speeches. Students performed cultural activities like dance, songs poems etc. on this special occasion. The students also arranged some fun games for the teachers to entertain them. Students expressed their gratitude, regard, and respect towards their teachers on that day. The students are arranged some fun games for the teachers to entertain them. All faculty members participated and enjoyed in the teachers' day celebration. The event was concluded with a formal vote of thanks.







#### **Guest Lecture on Recent Trends in Power Electronics**

The department of EEE organized the guest lecture on ' Recent Trends in Power Electronics' conducted online mode on 14/10/2023 at Thanam Hall. This guest lecture is for thirdyear EEE students for the course U21EE502- Power Electronics and Drives. The resource person will help students to know the concepts of power electronics and recent trends in power electronics circuits and their applications. The following topics were covered during the webinar Power Semiconductor Devices (SiC and GaN) Gate driver circuit design IGCT and GTO features Power converter and matrix converter Microgrid Low voltage power electronic devices and real-time applications. Implementation of microgrids in villages Power quality and their issues such as harmonics, sag, swell and transients, flicker Passive and active filters CDAC projects and R.& D sections involved in the projects on non-linear loads, unbalanced supply, and neutral current compensations Active filters and their functions Real-time implementation of CDAC projects in nearby villages in Kerela Power electronic converter, inverter, chopper, and resonant converter applications



### WEBINAR ON Recent Trends in Power Electronics

VIRTUAL MODE http://meet.google.com/tpv-jyrv-nzi

CONVENOR Dr. Mohana Sundaram K., HoD/ EEE

COORDINATORS Dr. Parimala V., AsP/ EEE Dr. Rakesh Kumar A., AP (SI.G) / EEE

14.10.2023 2.00PM VENUE : THANAM HALL

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#### DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

**Resource Person** 

Mr. A. Saravana Kumar Scientist E/ Joint Director Power Electronics Group CDAC, R&D organization of Meity Thiruvananthapuram, Kerala





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#### Alumni Series III

The department of EEE organized the Alumni Series III event on 21/09/2023, from 11:30 am to 12:15 pm, proved to be an enlightening experience focused on 'Building Bridges' between alumni and first-year students. Serving as the distinguished resource person was Er. Subhiksha C.L, a Quality Engineer at Rently Software Development Pvt Ltd. in Coimbatore. Er. Subhiksha C.L delivered an insightful session, emphasizing the significance of goal-setting, the pursuit of research, and the art of deriving enjoyment from the four-year academic journey. Her words resonated deeply with the audience, inspiring students to approach their college years with purpose and determination. She further stressed the importance of aligning their skills with the everevolving needs of the industry. The event commenced with a warm introduction by Prof. Mohamed Ibrahim A, an Assistant Professor (Sr.G) in the Department of Electrical and Electronics Engineering and introduced the alumni, highlighting their pivotal role in connecting the academic realm with the professional world. The Alumni Series III event successfully facilitated meaningful interactions, leaving both alumni and students motivated to forge strong connections and pursue their educational journeys with a clear focus on industry requirements. It was a memorable occasion that bridged the past and present, paving the way for a brighter future.









#### Senior-First Connect

The department of EEE organized the event 'Senior-First Connect' on 20/09/2023 with K.Vaishnavi serving as the resource person. This event was designed to provide valuable insights and guidance to EE first-year students as they embarked on their academic journey. The focus was on sharing experiences, academic strategies, tips for maintaining a balanced college life, and discussing career opportunities in the field of electrical engineering, particularly power systems. The event kicked off with a warm welcome to all attendees, followed by an introduction to K Vaishnavi, the senior student who would be sharing her experiences and insights by Mr.A.Mohamed Ibrahim, AP(Sr.G)/EE. K Vaishnavi began by recounting her personal college journey, highlighting key milestones, challenges faced, and achievements earned. Her story resonated with the first-year students, offering inspiration and relatability. The 'Senior-First Connect' event was highly successful, achieving its objectives of providing guidance, mentorship, and practical information to first-year students. K Vaishnavi's insights into college life, academic success, and electrical engineering were well-received and left the attendees feeling better prepared for their academic journey. The discussion on ABB global service internship opportunities and power systems added a practical dimension to the event, offering students a glimpse into potential career paths in the field of electrical engineering. In conclusion, this event provided an excellent platform for first-year students to kickstart their academic year with the wisdom and mentorship of senior who had successfully walked the same path.









#### **Publication by the Faculty Members**

 Dr.A.Karthik, "Partial discharge based recognition of water droplets location in high voltage insulator using convolutional neural network – Bacterial foraging algorithm based optimized machine learning classifier", Elsevier - Measurement: Journal of the International Measurement Confederation, September 2023.



## **List of Eminent Academicians/Scientists Visit**

S.No.	Name and Designation	Organization
1	Mr. A. Saravana Kumar Scientist E / Joint Director	CDAC, Thiruvananthapuram, Kerala
2	Er. C.L. Subhiksha Quality Engineer	Rently Software Development Pvt Ltd, Coimbatore

## Faculty Participation in FDP/Seminar/Workshop/Orientation Program

S. No	Faculty Name	Type of the Event	Event Name	Name of the Organization	Duration of the Event
1	Ms.B.Lalitha	Webinar	Battery Management Systems and Electric Batteries	ISIEINDIA	02/09/2023
2	Mr.A.Mohamed Ibrahim	Workshop	AI and Automation in MS Excel	Skill Nation	03/09/2023
3	Mr.A.Mohamed Ibrahim	Quiz	Chandrayaan 3 Mahaquiz	MyGov	06/09/2023

# **Students Participation in Seminar/Workshop/Hands on** Training/ Orientation Program

S.No	Student Name	Year & Section	Event Name	Name of the Organization	Duration of the Event
1	Thrivesh S	Π	Discus Throw	Kannyakumari District Athletic Association	02/09/2023 - 03/09/2023
2	Thrivesh S	II	Shotput	Kannyakumari District Athletic Association	02/09/2023 - 03/09/2023
3	Pannai Alangara Pandiyan S	III B	Javelin Throw	Bharathiyar University, Coimbatore	04/09/2023 - 05/09/2023
4	Tirukkumaran M A	III B	All India Vayu Sainik Camp 2023	Air Force Station, Jalahalli	04/09/2023 - 30/09/2023



5	Sandeepraaj P	III B	All India Vayu Sainik Camp 2023	Air Force Station, Jalahalli	04/09/2023 - 30/09/2023
6	Tharunraj M	IV B	Long Jump	Bharathiyar University, Coimbatore	05/09/2023
7	Adhithya A	Π	Paper Glitz	SNS College of Engineering, Coimbatore	12/09/2023
8	Gowshick M S	II	Paper Presentation	SNS College of Engineering, Coimbatore	12/09/2023
9	Jeffery Vibin J	II	Paper Presentation	SNS College of Engineering, Coimbatore	12/09/2023
10	Varun S K	II	Workshop	SNS College of Engineering, Coimbatore	12/09/2023
11	Mohana Priya M	II	Logo by Stroke	SNS College of Engineering, Coimbatore	12/09/2023
12	Deepan Kumar S	III A	Robothon	SNS College of Engineering, Coimbatore	12/09/2023 - 13/09/2023
13	Anandha Kumar S	III A	Robothon	SNS College of Engineering, Coimbatore	12/09/2023 - 13/09/2023
14	Dhanaraj P	III A	Robothon	SNS College of Engineering, Coimbatore	12/09/2023 - 13/09/2023
15	Giri Prasath B P	III A	Paper Presentation	SNS College of Engineering, Coimbatore	13/09/2023
16	Shesan K	II	Calibrex	SNS College of Engineering, Coimbatore	13/09/2023
17	Deepak D	II	Calibre-X	SNS College of Engineering, Coimbatore	13/09/2023
18	Vishal Kannan S I	II	Calibre-X	SNS College of Engineering, Coimbatore	13/09/2023
19	Vignesh M	II	Calibre-X	SNS College of Engineering, Coimbatore	13/09/2023
20	Dhinakaran Duraisamy A	II	Tech Spark	SNS College of Engineering, Coimbatore	13/09/2023 - 14/09/2023
21	Thrivesh S	II	Shotput	KSR Educational Institutions, Tiruchengode	15/09/2023 - 17/09/2023
22	Deepan Kumar S	III A	Concentia	Indian Institute of Space Science and Technology, Thiruvananthapuram	22/09/2023 - 26/09/2023
23	Deepan Kumar S	III A	Water Rocket	Indian Institute of Space Science and Technology, Thiruvananthapuram	22/09/2023 - 27/09/2023
24	Anandha Kumar S	III A	RC Rallycross	Indian Institute of Space Science and Technology, Thiruvananthapuram	23/09/2023 - 28/09/2023
25	Dhanaraj P	III A	RC Rallycross	Indian Institute of Space Science and Technology, Thiruvananthapuram	23/09/2023 - 28/09/2023



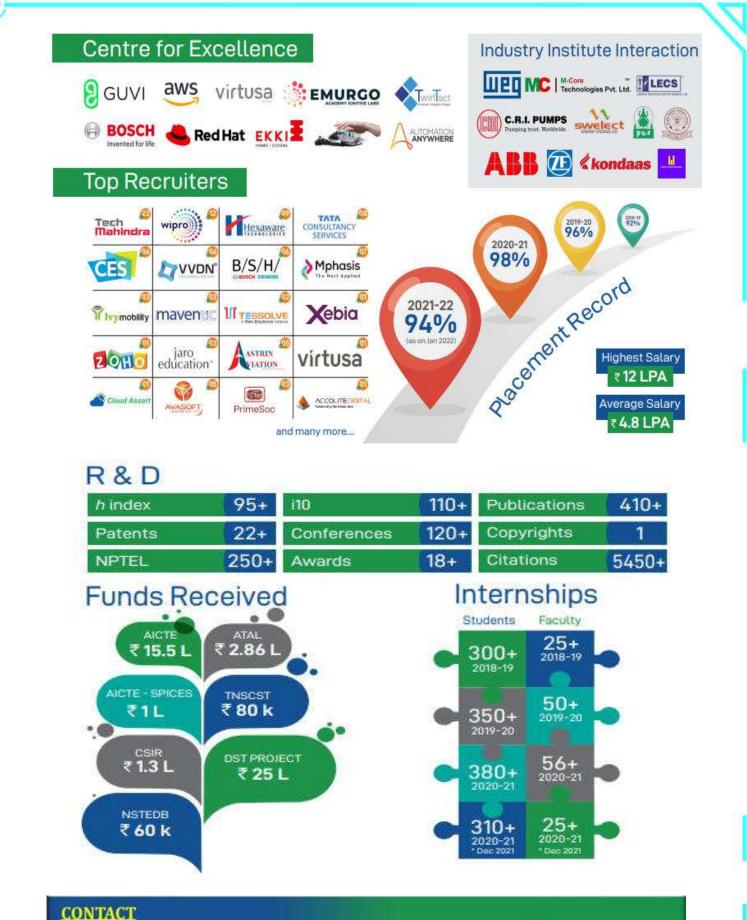


26	Anandha Kumar S	III A	Amphibot	Indian Institute of Space Science and Technology, Thiruvananthapuram	23/09/2023 - 28/09/2023
27	Dhanaraj P	III A	Amphibot	Indian Institute of Space Science and Technology, Thiruvananthapuram	23/09/2023 - 28/09/2023
28	Deepan Kumar S	III A	Amphibot	Indian Institute of Space Science and Technology, Thiruvananthapuram	23/09/2023 - 28/09/2023

# **Student Placement Details**

S.No.	Student Name	Organization
1	Swetha V.	Accenture, Chennai
2	Dhivyaa Lakshmi S.	Accenture, Chennai
3	Suwetha S.	Schneider Electric, Bangalore
4	Pavithra K.S.	Pricol, Coimbatore
5	Nishok Anand R.	Pricol, Coimbatore
6	Pranesh T.	Pricol, Coimbatore
7	Arun S.	Pricol, Coimbatore
8	Logesh.S.	Pricol, Coimbatore





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