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



# NEWSLETTER





# **ELECTROBLITZ**

VOLUME 9, ISSUE 7 July 2023

# **EDITORIAL BOARD**

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# VISION AND MISSION OF THE DEPARTMENT

# Vision:

To be a premier center 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 ElectricalEngineering 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 thesociety and also excel in their chosen profession
- **PEO2:** Adapt to emerging technologies and continuously upskill through activeresearch in Electrical Engineering and allied areas
- **PEO3:** Demonstrate leadership skills and practice their profession conforming toethical 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 engineeringpractice.
- **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 technologicalchange.

#### **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) |  |

| 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

#### Alumni Series I - Building Bridges

The Alumni Interaction with III-Year and IV-Year Students was organized by the Department of Electrical and Electronics Engineering on 22/07/2023 at EE Tutorial Hall. The eventaimed to provide a platform for senior students to connect with successful alumni, gain insightsinto their future journeys and receive guidance for their own career paths.Event Highlights:Opening Remarks: The event commenced with opening remarks from Dr.K.Mohana Sundaram, HoD/EEE, who welcomed the esteemed alumni and the students. He emphasized the importance of learning from the experiences of alumni who once stood in the students' shoes.Alumni Speaker Sessions: The event featured by S. Jithendra distinguished alumni who graduated in 2013. He share his personal and professional experiences after leaving the institution and spoke about the career choices, challenges faced and significant achievements.

The Alumni engaged in a candid conversation about transition from college life to professional life, work-life balance, and the importance of continuous learning.Q&A Session: The students actively participated in a question-and-answer session, seeking advice from the alumni on topics such as job searching and interview preparation. The alumni graciously addressed each question, offered practical tips and suggestions.Networking Opportunities: Students had the chance to seek mentorship, exchange contact information, and discuss specific career interests with the alumni.Alumni Feedback: The alumni shared his feedback on the institution's academic programs and campus life, offering valuable suggestions for improvement.Conclusion: The Alumni Interaction with III-Year and IV-Year Students was an enlightening and enriching event, leaving a profound impact on both the alumni and the students. The event fostered a sense of camaraderie to set ambitious career goals. The alumni generously shared his experiences and wisdom, providing invaluable guidance for the students' future endeavors.The organizing team extends sincere gratitude to JITHENDRA S for his invaluable contribution and the students for their active engagement. This event has further strengthened the bond between the institution and its alumni community and it will continue to be an essential tradition in nurturing the success of KPRIET's graduating students.



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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING ORGANISES ALUMNI SERIES ON

BUILDING BRIDGES

Nurturing Alumni Connections for Junior Success



2.30 PM TO 3.30 PM



22, July, 2023



EE Tutorial Hall

CONVENOR Dr.MOHANA SUNDARAM K HoD/EEE COORDINATOR Prof. MOHAMED IBRAHIM A Asst. Professor / EEE **Guest Speaker** 

# **JITHENDRAS**

Alumnus (2009 - 2013) - EEE Project Lead Value Labs, Coimbatore



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#### Three Days Hands on Training on "Designing Edge AI Applications with IoT

The department of electrical and Electronics engineering organized the three says hands on training on Designing Edge AI applications with IoT . The event coordinator Prof . G.Saravanan welcome the gathering. Mr . Rohit Prajapati, Technical Director , DigiToad Technologies deliberated the STM32CUBE IDE installation process and board pin configurations on 19/07/2023.During the session, everyone has experienced the program execution and inspired logic implementation on the board . Next day, Mr. Lingam Laishram , guided the installation process of Nano Edge AI Studio and license activation . He demonstrated the many industry case studies and program execution in AI Studio . All the participants are experienced the real-time applications: anomaly detection, classification of signals , predictive model . Also inspired the data set generation using sensors . The DigiToad Technologies team members are well explained in sensor selection for specific application and interfacing technique. In the last day, they were deliberated the AI module with IoT and compatibility of board with other IDE . The event ended with vote of thanks delivered by Dr. I.Baranilingesan, AP (SI.G) / EEE.









#### Publication by the Faculty Members

- Dr.K.Mohana Sundaram, "Adaptive Controller for Bridgeless New SEPIC Integrated Landsman Converter for PFC in Induction Motor", Electric Power Components and Systems, July 2023.
- Dr.V.S.Chandrika, "Performance Analysis of a Seven-Level Multilevel Inverter in Grid-Connected Systems", SSRG International Journal of Electrical and Electronics Engineering, Volume 10, Issue 6, Page No. 9 – 22, June 2023.
- Dr.P.Pandiyan, "Technological advancements toward smart energy management in smart cities", Energy Reports 10 (2023), Page No. 648 – 677.
- Dr.V.Parimala, "Comparative study of conventional solar still with and without blackpainted wick materials: energy and exergy study", Desalination and Water Treatment 294 (2023), Page No. 11 – 19.
- Dr.V.Parimala, "Water depth effect on energy, exergy losses, and exergy efficiency of solar still with wick materials: an experimental research", Environmental Science and Pollution Research, July 2023.



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# List of Eminent Academicians/Scientists Visit

| S.No. | Name and Designation Organization   |                                  |
|-------|---|----------------------------------|
| 1     | Mr. S. Jithendra<br>Project Lead  | Value Labs, Coimbatore           |
| 2     | Ir. Rohit Prajapati, Technical Director, DigiToad Technologies, Bengaluru |                                  |
| 3     | Mr. Lingam Laishram, Technical Engineer                                   | DigiToad Technologies, Bengaluru |
| 4     | Ms. Mrinalini Bark, Application Engineer                                  | DigiToad Technologies, Bengaluru |

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

| S.<br>No | Faculty Name        | Type of the<br>Event | Event Name   | Name of the<br>Organization                                | Duration of<br>the Event      |
|----------|---------------------|----------------------|--|--|-------------------------------|
| 1        | Mr.C.J.Vignesh      | Workshop             | Integrating Autodesk<br>Fusion 360 in Engineering<br>Subjects    | Lendi Institute of<br>Engineering and<br>Technology, Vizag | 26/06/2023<br>-<br>01/07/2023 |
| 2        | Dr.C.Pazhanimuthu   | Conference           | Computing,<br>Communication and<br>Networking Technologies       | IIT, Delhi   | 06/07/2023<br>-<br>08/07/2023 |
| 3        | Dr.C.Pazhanimuthu   | Workshop             | Future of Sustainability:<br>Electric Vehicles and<br>Smart Grid | SRM Institute of<br>Science &<br>Technology, Chennai       | 27/07/2023<br>-<br>29/07/2023 |
| 4        | Ms.B.Lalitha        | Workshop             | Future of Sustainability:<br>Electric Vehicles and<br>Smart Grid | SRM Institute of<br>Science &<br>Technology, Chennai       | 27/07/2023<br>-<br>29/07/2023 |
| 5        | Mr.K.Balamurugan    | Workshop             | Future of Sustainability:<br>Electric Vehicles and<br>Smart Grid | SRM Institute of<br>Science &<br>Technology, Chennai       | 27/07/2023<br>-<br>29/07/2023 |
| 6        | Mr.C.J.Vignesh      | Workshop             | Future of Sustainability:<br>Electric Vehicles and<br>Smart Grid | SRM Institute of<br>Science &<br>Technology, Chennai       | 27/07/2023<br>-<br>29/07/2023 |
| 7        | Dr.C.Pazhanimuthu   | Workshop             | Industrial IoT using<br>LORAWAN Technology                       | Enthu Technology<br>Solutions, Coimbatore                  | 29/07/2023                    |
| 8        | Dr.I.Baranilingesan | Workshop             | Realization of<br>Communication Microgrid<br>using Opal-RT       | VIT, Chennai   | 31/07/2023<br>-<br>04/08/2023 |



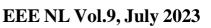
# **Faculty Internship Details**

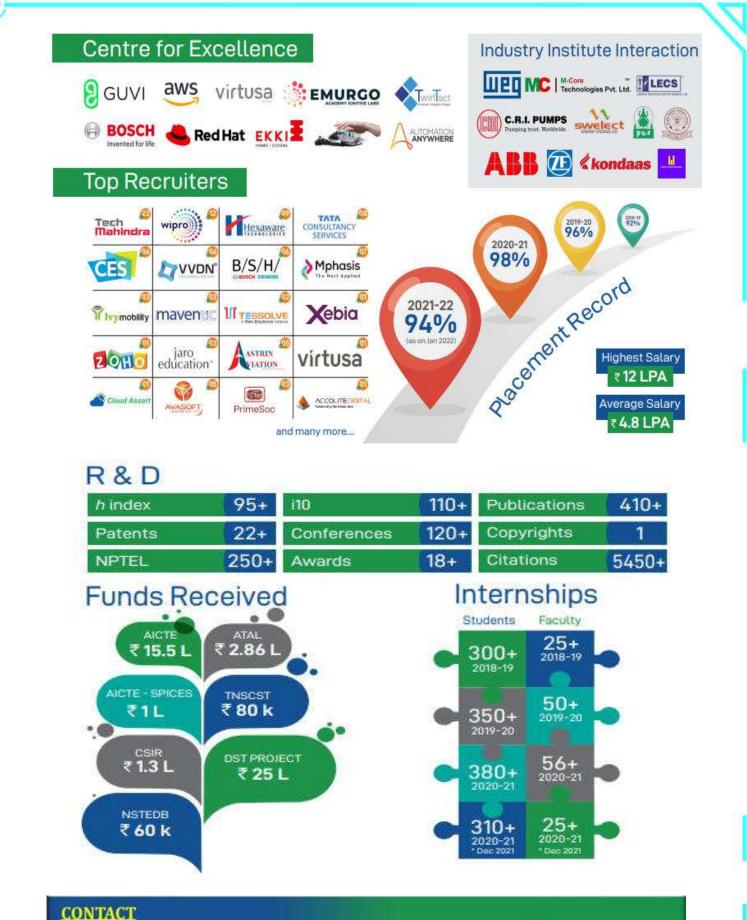
| S.<br>No | Faculty Name            | Company Name  | Internship<br>Starting Date | Internship<br>Ending Date |
|----------|-------------------------|---|-----------------------------|---------------------------|
| 1        | Dr.C.Pazhanimuthu       | MAS Solar systems Pvt. Ltd., SIDCO<br>Private Industrial Estate, Coimbatore | 01-07-2023                  | 07-07-2023                |
| 2        | Mr.V.Kamalkumar         | Innovative Invaders Technologies,<br>Coimbatore                             | 01-07-2023                  | 07-07-2023                |
| 3        | Dr.A.Karthick           | VGR Automation, Coimbatore  | 03-07-2023                  | 08-07-2023                |
| 4        | Mr.A.Mohamed<br>Ibrahim | MAS Solar systems Pvt. Ltd., SIDCO<br>Private Industrial Estate, Coimbatore | 03-07-2023                  | 07-07-2023                |

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

| S.No | Student Name          | Year &<br>Section | Event Name | Name of the<br>Organization                          | Duration of<br>the Event   |
|------|-----------------------|-------------------|------------|--|----------------------------|
| 1    | Maha Vishnu G         | IV EEE A          | Hackathon  | SNS Square<br>Consultancy Pvt. Ltd &<br>Mindful AI   | 16/07/2023                 |
| 2    | Keerthi Ragavendran S | III EEE A         | Workshop   | SRM Institute of<br>Science & Technology,<br>Chennai | 27/07/2023 -<br>29/07/2023 |
| 3    | Harish P S            | III EEE A         | Workshop   | SRM Institute of<br>Science & Technology,<br>Chennai | 27/07/2023 -<br>29/07/2023 |
| 4    | Dhanush S             | III EEE A         | Workshop   | SRM Institute of<br>Science & Technology,<br>Chennai | 27/07/2023 -<br>29/07/2023 |
| 5    | Abishek K             | III EEE A         | Workshop   | SRM Institute of<br>Science & Technology,<br>Chennai | 27/07/2023 -<br>29/07/2023 |
| 6    | Vishnu M              | III EEE A         | Workshop   | SRM Institute of<br>Science & Technology,<br>Chennai | 27/07/2023 -<br>29/07/2023 |







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