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



NEWSLETTER





ELECTROBLITZ

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INDEX

| S.No. | Contents | Page No. |
|-------|---|-------------|
| 1 | Vision and Mission | 1 |
| 2 | PEOs POs and PSOs | 2 |
| 3 | Faculty Details | 3 |
| 4 | Association Activities | 5 |
| 5 | Faculty Member Publication | 10 |
| 6 | Faculty Member Designated as Expert Member | 10 |
| 7 | Faculty Participation in FDP/Seminar/Workshop/Orientation Program | 11 |
| 8 | Students Participation in Hands on Session/Workshop/Seminar/ Quiz/Paper Presentation | 12 |
| 9 | Students Placement Details | 13 |
| 10 | Product Development | 14 |
| 11 | Photo and Art Gallery | 16 |

VISION AND MISSION OF THE DEPARTMENT

Vision:

To be the **centre of higher learning** in the field of Electrical and Electronics Engineering by educating the students to meet the **global challenges** with **professional ethics and social consciousness**.

Mission:

- Providing technical, intellectual and ethical environment to the students through knowledge centric education and research.
- Collaborating with industries in the vicinity, nationally and internationally for exposure and **innovation**.
- Enabling the students to serve the society through prolific ideas.

Programme Educational Objectives (PEOs)

The Graduates of Electrical and Electronics Engineering will

- **PEO1** Possess an adequate knowledge to meet the needs of the stakeholders and excel in their chosen profession with good communication and managerial skills.
- **PEO2** Adapt to emerging technologies and practice their profession confirming to ethical and human values.
- **PEO3** Continuously improve the habit of self-study through professional development activities.

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)

Graduates of Electrical and Electronics Engineering will able to:

- **PSO1** Develop skills to the expectations of the dynamic industrial practices in Electrical Engineering and allied areas.
- **PSO2** Analyze, design and integrate various renewable energy sources to meet the energy demand.

FACULTY DETAILS

| S.NO | NAME OF THE FACULTY | DESIGNATION |
|------|-----------------------|----------------------------|
| 1. | Dr.V.Kumar Chinnaiyan | Professor & Head |
| 2. | Dr.J.Karpagam | Professor |
| 3. | Dr.K.Mohana Sundaram | Professor |
| 4. | Dr.R.Uthirasamy | Professor |
| 5. | Dr.V.S.Chandrika | Associate Professor |
| 6. | Dr.P.Pandiyan | Associate Professor |
| 7. | Dr.A.Karthick | Associate Professor |
| 8. | Mr.S.Vivekanandan | Assistant Professor (Sl.G) |
| 9. | Mr.G.Saravanan | Assistant Professor (Sl.G) |
| 10. | Dr.R.Sampathkumar | Assistant Professor (Sl.G) |
| 11. | Dr.C.Pazhanimuthu | Assistant Professor (Sl.G) |
| 12. | Dr.I.Baranilingesan | Assistant Professor (Sl.G) |
| 13. | Dr.S.Ravindran | Assistant Professor (Sl.G) |
| 14. | Dr.A.Matheswaran | Assistant Professor (Sl.G) |
| 15. | Dr.V.Parimala | Assistant Professor (Sl.G) |
| 16. | Dr.D.Sathish Kumar | Assistant Professor (Sl.G) |
| 17. | Ms.B.Lalitha | Assistant Professor (Sr.G) |

| 18. | Ms.R.Revathi | Assistant Professor (Sr.G) |
|-----|----------------------|----------------------------|
| 19. | Mr.A.Mohamed Ibrahim | Assistant Professor (Sr.G) |
| 20. | Mr.P.Ravikumar | 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. | Ms.P.Praveena | Assistant Professor |
| 26. | Mr.M.Mohana Sundaram | Assistant Professor |

SUPPORTING STAFF

| S.NO | NAME OF THE STAFF | DESIGNATION |
|------|----------------------|------------------|
| 1. | Mr.M.Vinothkumar | Lab Technician |
| 2. | Mr.C.Gopalakrishnan | Lab Technician |
| 3. | Mr.R.Vinothkumar | Lab Technician |
| 4. | Mr.K.S.M.Manoj Kumar | Lab Technician |
| 5. | Ms.P.Parameshwari | Junior Assistant |

ASSOCIATION ACTIVITIES

Quiz Series on Electric Vehicles – XXIX

The department of Electrical and Electronics Engineering organized a "Quiz Series on Electric Vehicles – XXIX" on 08/01/2022 open to all, who are keen on emerging EV technologies. The poster is circulated to various Institutions and in social media digitally. Participants from various Institutions, Universities and Industries across India and foreign nations have participated in this quiz. The details of the Program Participants are given below:

| Total Participants | : 1008 |
|--|--------|
| Participants cleared the quiz and received Certificate | : 975 |



Webinar on "Digital Profile Building"

The Department of Electrical and Electronics Engineering organized a webianr on "**Digital Profile Building**" on 10.01.2022 for students' community. **Prof. C. Dinesh**, Assistant Professor (Sr.G.), Department of Electrical and Electronics Engineering, KPR Institute of Engineering and Technology has delivered valuable presentation on Digital Profile Building for III year Students. He had provided the few deliberations on

- Linked In
- Git Hub

Students expressed their gratitude towards the resource person for knowledge which he shared. The seminar provided some of the interesting facts in IoT and its applications to the students and faculty members. 87 participants have attended the seminar and ignited themselves. The Vote of thanks was delivered by Dr.D.Sathish Kumar - AP (Sl.G). The department of EEE thank the management for providing this opportunity to conduct the webinar successfully.

Value Added Course on "Skill Enhancement on Pumps"

The EKKI-KPRIET International Water Technology Centre (EIWTC) conducted a value added course on "Skill Enhancement on Pumps" for second year chemical students on 12/01/2022. A heart-warming welcome was delivered by Prof.B.Lalitha, AP (Sr.G)/EEE and Dr.V.Kumar Chinnaiyan addressed the gathering and shared the glimpse of EIWTC. The session details are opportunities in pump sector, drive technologies in pumps, pump selection & application, cavitation, pump installation and trouble shooting and pump performance testing. The sessions was by Prof.V.Bhuvaneswari, AP (Sr.G)/Mech, Dr.S.Kanmani, handled AsP/Civil and Prof.C.J.Vignesh, AP (Sr.G)/EEE .This EKKI-KPRIET International Water Technology Centre facilitates the students to serve as interns in the college premises rather than reaching out to the industry. Dr.S.Ravindran, AP (Sl.G.)/EEE delivered the vote of thanks.

Alumni Series – January 2022

The Department of EEE organized an Alumni series for 2023 and 2024 batch on 22/01/2022. A heart-warming welcome was delivered by Prof.R.Revathi, AP (Sr.G)/EEE and Dr.V.Kumar Chinnaiyan addressed the gathering and shared the glimpse of interview in the current scenario. Er. Sanjay Singaravelu. R, IoT Engineer, Kalycito Infotech Pvt. Ltd., Coimbatore an alumnus of 2020 has been invited as a resource person to deliver the information about the expectation from the fresher's in the interview table. He has shared his personal experience about how to get ready and face the interviewer. The session was an eye opening for all the participants. Dr.D.Sathish Kumar, AP (SI.G.)/EEE delivered the vote of thanks.

Quiz Series on Electric Vehicles – XXX

The department of Electrical and Electronics Engineering organized a "Quiz Series on Electric Vehicles – XXX" on 29/01/2022 open to all, who are keen on emerging EV technologies. The poster is circulated to various Institutions and in social media digitally. Participants from various Institutions, Universities and Industries across India and foreign nations have participated in this quiz. The details of the Program Participants are given below,

Faculty Member Publication

- R. Uthirasamy, V. Kumar Chinnaiyan, Alagar Karthick "Design of Boosted Multilevel DC-DC Converter for Solar Photovoltaic System", International Journal of Photoenergy, January 2022.
- Alagar Karthick, "Investigation of Weight Fraction and Alkaline Treatment on Catechu Linnaeus/Hibiscus cannabinus/Sansevieria Ehrenbergii Plant Fibers-Reinforced Epoxy Hybrid Composites", Advances in Materials Science and Engineering, January 2022.
- 3. Alagar Karthick, "Mechanical and Durability Studies on Ficus exasperata Leaf Ash Concrete", Advances in Civil Engineering, January 2022.
- Alagar Karthick, "Fabrication of MnO2 Nanocomposite on GO Functionalized with Advanced Electrode Material for Supercapacitors", Journal of Nanomaterials, January 2022.
- Alagar Karthick, "Performance Evaluation of Cyclic Stability and Capacitance of Manganese Oxide Modified Graphene Oxide Nanocomposite for Potential Supercapacitor Applications", Journal of Nanomaterials, January 2022.
- Alagar Karthick, "A Review on the Effect of Various Chemical Treatments on the Mechanical Properties of Renewable Fiber-Reinforced Composites", Advances in Materials Science and Engineering, Hindawi, January 2022.
- V.S.Chandrika, "Natural Fiber Incorporated Polymer Matrix Composites for Electronic Circuit Board Applications", Advances in Materials Science and Engineering, Hindawi, January 2022.

Patent Publication by the Faculty Member

- 1. R.Sampathkumar, "A Fuel Cell Assembly and Method Thereof", Publication No. 202241001621, January 2022.
- 2. A.Mohamed Ibrahim, "Artificial Intelligence-Based Techniques to Decide and Guide Pilot for Landing of Aircrafts", Publication No. 202241001184, January 2022.

Faculty Members Designated as Expert Member

- Dr.V.Kumar Chinnaiyan, Professor from the Department of Electrical and Electronics Engineering was designated as the expert member for NAAC external audit at Nehru Institute of Engineering and Technology on 24/01/2022.
- Mr.G.Saravanan, Assistant Professor (Sl.G) from the Department of Electrical and Electronics Engineering was designated as the expert member for NAAC external audit at Nehru Institute of Engineering and Technology on 24/01/2022.

Faculty Participation in FDP/Seminar/Workshop/Orientation Program

| S.No | Faculty Name | Type of the Event | Event Name Venue | | Duration of the Event |
|------|--|---|--|--|-------------------------------|
| 1 | Mr. S.Vivekanandan | ATAL FDP | Smart Grid – Drivers, Challenges and Opportunities | Sastra University, Tanjore | 04/01/2022 - 08/01/2022 |
| 2 | Mr. K.Balamurugan | ATAL FDP | Digital Teaching Techniques | Digital Teaching Techniques Sastra University, Tanjore | |
| 3 | Mr. A.Mohamed Ibrahim | Workshop | Mathematical Optimization and its Applications | Mathematical Optimization and its Applications Skill Lync, Chennai | |
| 4 | Ms. R.Revathi | FDP | Design and Development of ML Model for Remote Monitoring and Control of Hybrid Microgrid | Kamaraj College of Engineering and Technology, Virudhunagar | 11/01/2022 - 12/01/2022 |
| 5 | Dr. C.Pazhanimuthu | ATAL FDP | Advanced Control and Sensor Technology for Smart Grid with Renewable Energy IntegrationProgressive Eduction Society's Modern College of Engineering, Pune | | 17/01/2022 |
| 6 | Dr. I.Baranilingesan | FDP | Ui Path Robotic ProcessAutomation Design andDevelopment | | 17/01/2022 - 22/01/2022 |
| 7 | Mr. S.Vivekanandan | ATAL FDP | Digital Teaching Techniques | Digital Teaching Techniques ICT Academy | |
| 8 | Dr. P.Pandiyan | ATAL FDP | Digital Teaching Techniques | ICT Academy | 24/01/2022 - 28/01/2022 |
| 9 | Dr. S.Ravindran | .Ravindran Research Survey SDG 7 Awareness and Action Towards Indian Universitie | | IGEN | 25/01/2022 |
| 10 | Dr. V.S.Chandrika | .S.Chandrika Research SURVEY Universitie SDG 7 Awareness and Action Towards Indian IGEN | | 25/01/2022 | |
| 11 | Dr. D.Sathishkumar | Research Survey | SDG 7 Awareness and Action Towards Indian Universitie | IGEN | 25/01/2022 |
| 12 | Dr. R.Sampathkumar | Research Survey | rch ey Universitie | | 25/01/2022 |
| 13 | Mr. A.Mohamed Research Ibrahim Survey | | SDG 7 Awareness and Action Towards Indian Universitie | IGEN | 25/01/2022 |

| 14 | Ms. B.Lalitha | Research Survey | SDG 7 Awareness and Action Towards Indian Universitie | IGEN | 25/01/2022 |
|----|--------------------|--------------------|---|---|------------|
| 15 | Mr. C.Dinesh | Research Survey | SDG 7 Awareness and Action Towards Indian Universitie | IGEN | 25/01/2022 |
| 16 | Ms. P.Praveena | Research Survey | SDG 7 Awareness and Action Towards Indian Universitie | IGEN | 25/01/2022 |
| 17 | Mr. C.Dinesh | Webinar | My Story - Motivational Session by Successful Entrepreneur/Startup founder | Hindusthan College of Engineering and Technology, Coimbatore | 29/01/2022 |
| 18 | Dr. C.Pazhanimuthu | Workshop | Double Diamond Approach in Design | SSN College of Engineering, Chennai | 29/01/2022 |

Students Participation in Hands on Session/ Workshop/Seminar/Quiz/Paper Presentation

| S.No | Student Name | Year | Event | Title of the Event / Project | Organizing Institute |
|------|--------------------|------|-----------------------------|--|-------------------------|
| 1 | V. Hariprakash | Π | PALS-NexGen 3D Hackathon | Design and Develop a Stamp Based on the Criteria and 3D Print it to test Infill | IIT PALS, Chennai |
| 2 | S. Jeevan Prasanth | Π | PALS-NexGen 3D Hackathon | Design and Develop a Stamp Based on the Criteria and 3D Print it to test Infill | IIT PALS, Chennai |
| 3 | G. Mahavishnu | Π | PALS-NexGen 3D Hackathon | Design and Develop a Stamp Based on the Criteria and 3D Print it to test Infill | IIT PALS, Chennai |
| 4 | A. Manikandan | П | PALS-NexGen 3D Hackathon | Design and Develop a Stamp Based on the Criteria and 3D Print it to test Infill | IIT PALS, Chennai |
| 5 | K. Vaishnavi | Π | PALS-NexGen 3D Hackathon | Design and Develop a Stamp Based on the Criteria and 3D Print it to test Infill | IIT PALS, Chennai |
| 6 | E. Radhika | ΙΙ | PALS-NexGen 3D Hackathon | Design and Develop a Stamp Based on the Criteria and 3D Print it to test Infill | IIT PALS, Chennai |
| 7 | T. Tharunkumar | п | PALS-NexGen 3D Hackathon | Design and Develop a Stamp Based on the Criteria and 3D Print it to test Infill | IIT PALS, Chennai |

| 8 | S. Sanjay | Π | Virtual Industry Visit | SIEMENS GAMESA | IIT PALS, Chennai |
|----|-------------------|----|------------------------------------|--|-------------------|
| 9 | M. Pandidurai | Π | Virtual Industry Visit | SIEMENS GAMESA | IIT PALS, Chennai |
| 10 | Harshini | Π | PALS innoWAH Taskforce | Overview of the Lean Business Canvas Model | IIT PALS, Chennai |
| 11 | M. Kavinkannan | Π | Workshop | Industrial Safety | IIT PALS, Chennai |
| 12 | S. Santhosh | II | PALS Industry Speaks Core | Product Reliability Engineering | IIT PALS, Chennai |
| 13 | M. Suvetha | II | PALS Industry Speaks Core | Product Reliability Engineering | IIT PALS, Chennai |
| 14 | P. Jones Barnabas | Π | PALS Industry Speaks Digital | Design Thinking and its Impact | IIT PALS, Chennai |
| 15 | K.S. Pavithra | Π | PALS Theory to Practice Session | Cancer Therapy By Inhibition of Immune Checkpoints | IIT PALS, Chennai |

Student Placement Details

| S.No. | Student Name | Organization |
|-------|------------------|-------------------------------|
| 1 | Sushmitha S.P. | VVDN Technologies, Coimbatore |
| 2 | Roshan Akthar A. | VVDN Technologies, Coimbatore |
| 3 | Sivaneasan L. | Skolar, Chennai |
| 3 | Vishnujith M. | Skolar, Chennai |

Product Development

| Product Title | CAMPUS WIDE WATER MANAGEMENT SYSTEM | | | | |
|---------------|---|--|--|--|--|
| | Ms.B.Lalitha/EEE | | | | |
| Name of the | Dr.S.Ravindran/EEE | | | | |
| Supervisor | Mr.C.J.Vignesh/EEE | | | | |
| | OBJECTIVES ♦ To control the water pumping systems ♦ To monitor the water level through mobile application | | | | |
| | To decrease the human effort needed for water management system | | | | |
| | METHODOLOGYThe RO tank water level is measured using Ultrasonic sensor. | | | | |
| Product | The tank level is uploaded to cloud | | | | |
| Description | \clubsuit The controller connected with pump relay will autonomously act to maintain | | | | |
| | water level in tank | | | | |
| | \clubsuit The tank water level and motor status is available in mobile app with security | | | | |
| | officer for manual control. | | | | |
| | RESULTS AND DISCUSSION | | | | |
| | The water level is monitored successfully and uploaded to cloud | | | | |
| | Using the cloud data the pump relay is operated to turn on and turn off pump. | | | | |
| | The tank water level and motor status is displayed | | | | |

ART GALLERY

G.Vinothini / IV EEE-B

