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

KPRIET
Learn Beyond

NEWSLETTER

Department of EEE
KPRIET
Empower Through Learning

ELECTROBLITZ

VOLUME 8, ISSUE 2

February 2022

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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

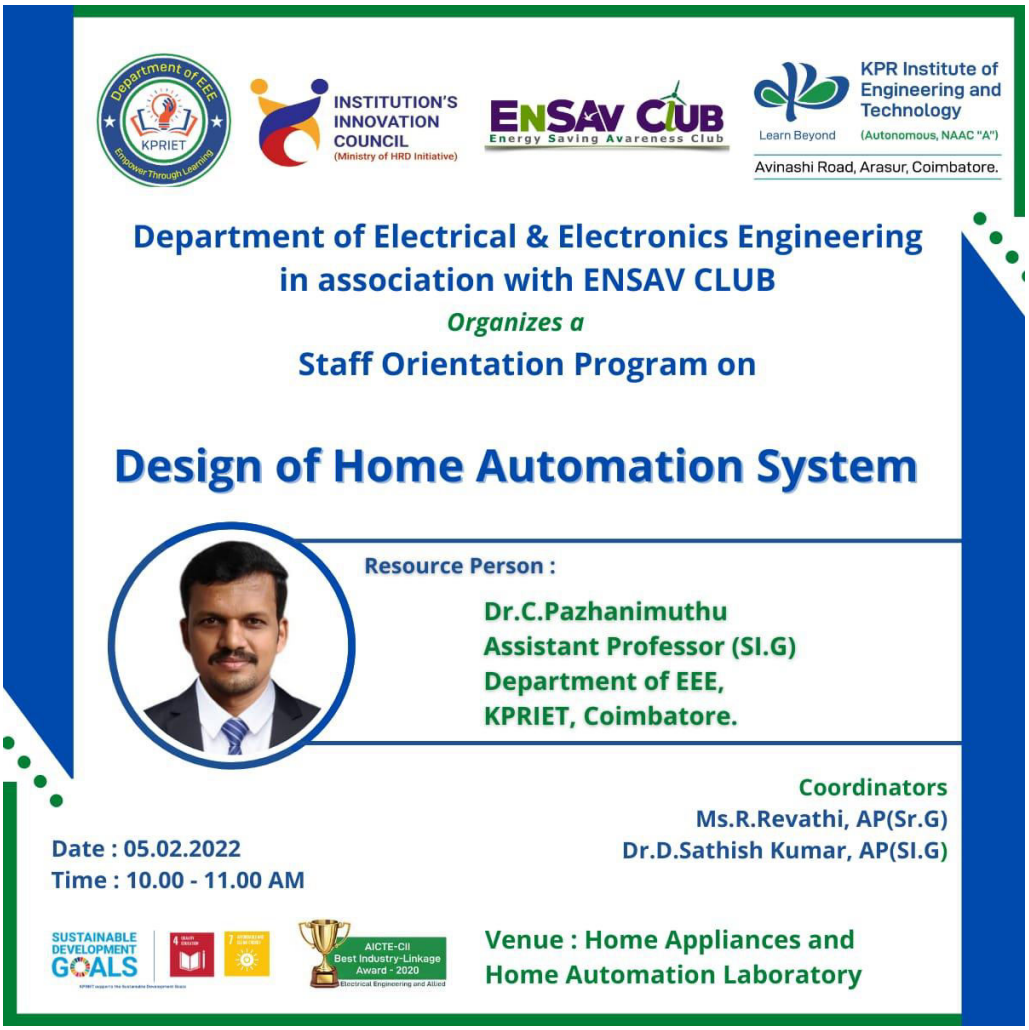
S.NO	NAME OF THE STAFF	DESIGNATION
1.	Mr.M.Vinothkumar	Lab Technician
2.	Mr.C.Gopalakrishnan	Lab Technician
3.	Mr.R.Vinothkumar	Lab Technician
4.	Mr.K.S.M.Manoj Kumar	Lab Technician
5.	Ms.P.Parameshwari	Junior Assistant

Staff orientation program on "Design of Home Automation System"

The department of Electrical and Electronics Engineering organized a staff orientation program on "Design of Home Automation System" on 05/02/2022 for staff community. A heart-warming welcome was delivered by Prof.R.Revathi, AP (Sr.G), Dept. of EEE. Dr.C.Pazhanimuthu, AP (Sl.G) has delivered valuable presentation on role, importance and recent technologies in design of home automation. He had presented the discussions on

- Need and importance of home automation
- Recent technologies in home automation
- How to do programming
- Implementation of home appliances to IoT
- Demonstration of home automation projects

The orientation program provided some of the interesting facts in home automation and IoT implementation to the staff members. The vote of thanks was delivered by Dr.D.Sathisk Kumar, AP (Sl.G)/EEE. There were fifteen staff attended the programme and get benefited. The department of EEE thanks to the management for providing this opportunity to conduct the orientation program successfully.



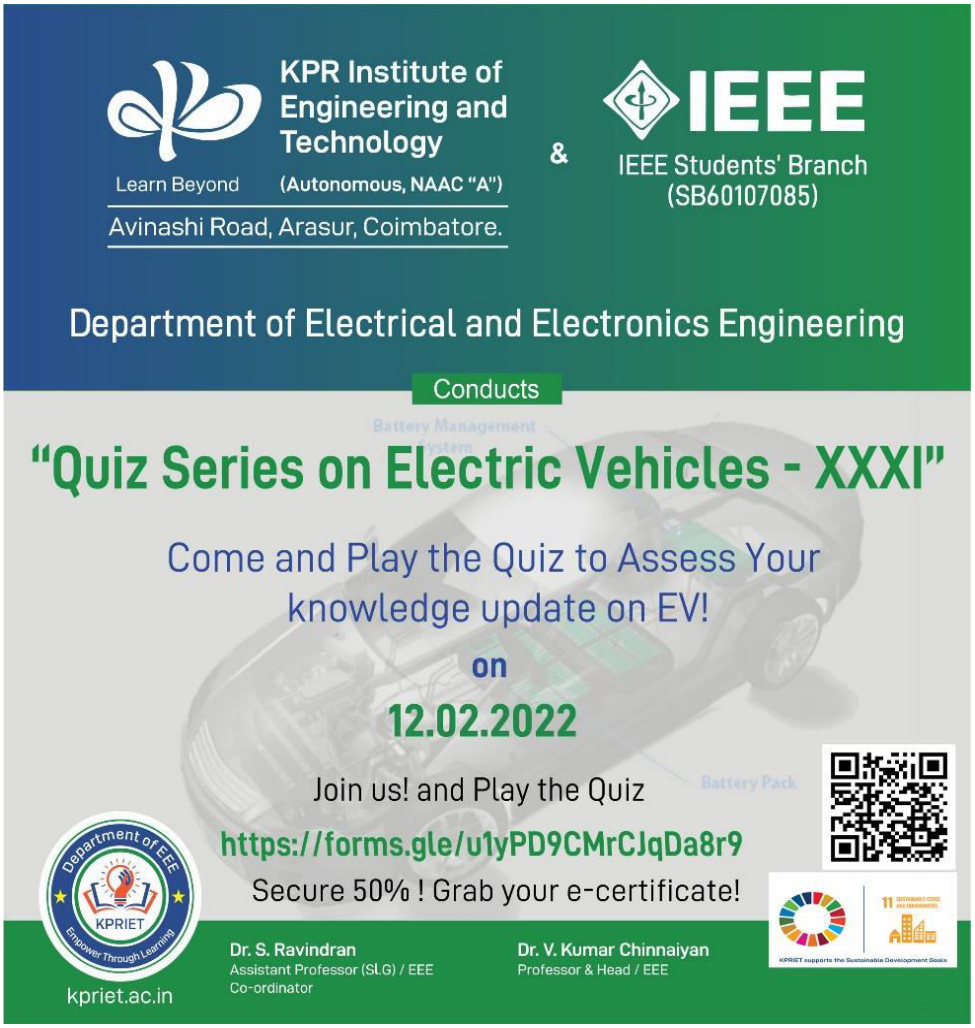
Quiz Series on Electric Vehicles – XXXI

The department of Electrical and Electronics Engineering organized a "Quiz Series on Electric Vehicles – XXXI" on 12/02/2022 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.

- This Quiz had 10 questions covering Electric Vehicle Technologies
- Each question carries 10 marks.
- The participants who scored 50% and above were issued with Certificate of Appreciation.

The details of the Program Participants are given below:

Total Participants	:	285
Participants cleared the quiz and received Certificate	:	250



Energy conservation awareness Programme on "Smart Energy Efficient Home Automation System"

The Energy conservation awareness Programme on "Smart Energy Efficient Home Automation System" was organized by the department of EEE in association with ENSAV club, KPRIET on 12/02/2022 for I year EEE department students. Dr.C.Pazhanimuthu, AP (Sl.G) has delivered valuable presentation on need of home automation, importance of home automation and recent technologies in design of home automation. The resource person has demonstrated the usage of smart controllers and its application in controlling various home appliances. Students actively participated in the workshop and gained the knowledge on energy conservation by home automation.

KPR Institute of Engineering and Technology
Learn Beyond (Autonomous, NAAC "A")
TNEA Counselling Code: 2764

ENSAV CLUB
Energy Saving Avareness Club

Department of
Electrical and Electronics Engineering
in Association with
ENSAV Club
Organizes a

Workshop on

"Smart Energy Efficient Home Automation System"
For First Year EEE Students

Dr.C.Pazhanimuthu
Assistant Professor (Sl.G)
Department of EEE,
KPRIET, Coimbatore

Date: 12.02.2022
Time: 02:30 - 03:30 PM

Coordinator
Dr.S.Ravindran, AP (Sl.G)

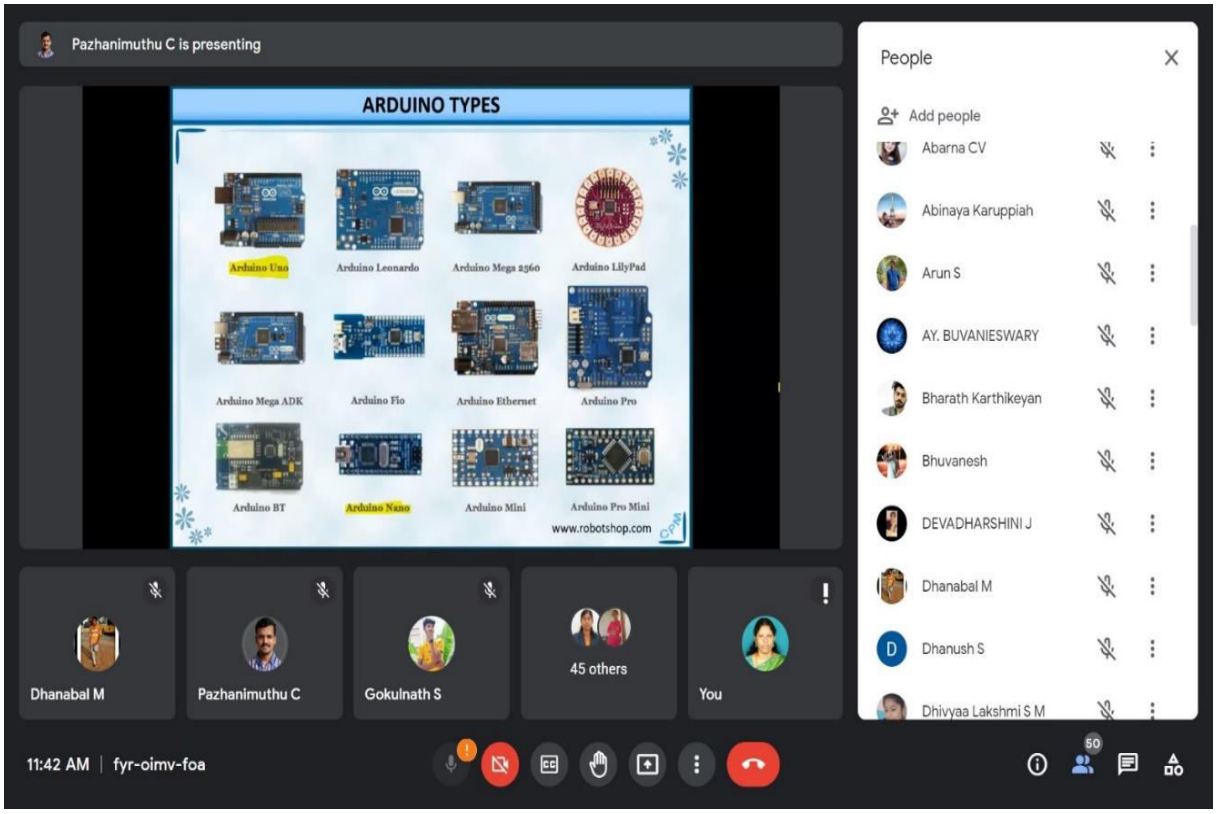
SUSTAINABLE DEVELOPMENT GOALS

AICTE-CII Best Industry-Linkage Award - 2020
Electrical Engineering and Allied

Venue: Home Appliances and Home Automation Laboratory

Project Expo for Polytechnic Students - “Innovate 2022”

The Department of Electrical and Electronics Engineering of KPR Institute of Engineering and Technology organized “Innovate 2022 – Project Expo for Polytechnic Students” on 26/02/2022 in online mode. Prof. B.Lalitha, AP (Sr.G) / EEE welcomed the gathering. Dr. V.Kumar Chinnaiyan, Professor & Head / EEE, gave an inaugural address and highlighted the advantages of conducting this kind of project expo. Dr. M.Akila, Principal, gave the presidential address and deliberated the importance of studies to the outside participants. The participants from various parts of the state showcased their technical talents in the paper presentation, photography and short film. The workshop “Home Automation” was handled by Prof.C.Pazhanimuthu, AP (Sl.G) / EEE in afternoon session to enhance their skills. Finally, the prizes were announced in the valedictory session. Prof. R.Sampathkumar delivered the vote of thanks and event came to conclusion. Totally 26 polytechnic students were benefited.



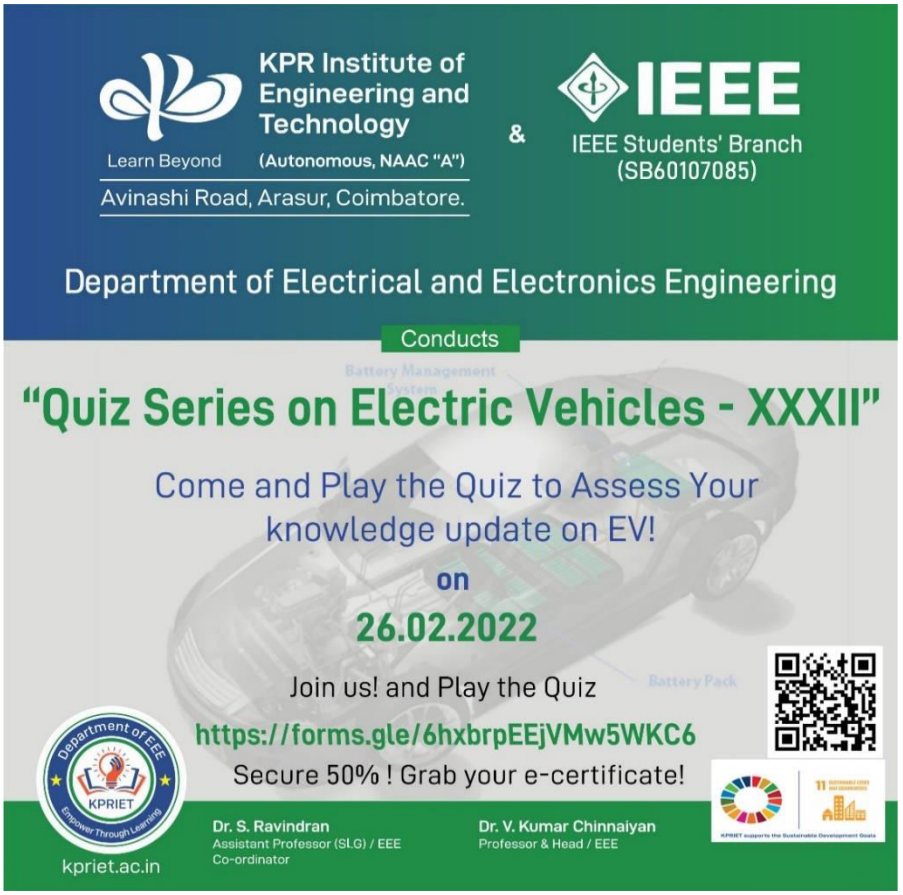
Quiz Series on Electric Vehicles – XXXI

The department of Electrical and Electronics Engineering organized a **"Quiz Series on Electric Vehicles – XXXII"** on 26/02/2022 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.

- This Quiz had 10 questions covering Electric Vehicle Technologies
- Each question carries 10 marks.
- The participants who scored 50% and above were issued with Certificate of Appreciation.

The details of the Program Participants are given below:

Total Participants	:	220
Participants cleared the quiz and received Certificate	:	176



Faculty Members Designated as Resource Person

- Dr A Matheswaran, Assistant Professor (Selection Grade), Department of Electrical and Electronics Engineering was designated as the Resource Person for an AICTE – ISTE Sponsored one week Online Induction Programme on "Design of Sensor Based Systems and Exploration of IPR" organized by Sri Manakula Vinayagar Engineering College, Puducherry on 02/02/2022 and delivered the guest lecture on "Patent Filing Procedure".

Faculty Members Publications

- Remya, R. R., Angeline Julius, T. Y. Suman, V. Mohanavel, **Alagar Karthick**, **C. Pazhanimuthu**, Antony V. Samrot, and M. Muhibbullah. "Role of Nanoparticles in Biodegradation and Their Importance in Environmental and Biomedical Applications." *Journal of Nanomaterials* 2022 (2022).
- Nanmaran, R., S. Srimathi, G. Yamuna, S. Thanigaivel, A. S. Vickram, A. K. Priya, **Alagar Karthick**, **J. Karpagam**, V. Mohanavel, and M. Muhibbullah. "Investigating the Role of Image Fusion in Brain Tumor Classification Models Based on Machine Learning Algorithm for Personalized Medicine." *Computational and Mathematical Methods in Medicine* 2022 (2022).
- **Karpagam, J**., Chandrashekhar K. Patil, KV Pradeep Kumar, Ankur Dutt Sharma, RaviKumar Goyal, Moti Lal Rinawa, and M. Sudhakar. "Fabrication of Al-Zr-Mg-Ni matrix composite with TiC reinforcement by multi-pass recursive friction stir processing and its characterization." *Materials Today: Proceedings* (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	Workshop	Emerging Trends in Energy Efficiency	SSN College of Engineering, Chennai	11/02/2022
2	Mr. K.Balamurugan	Workshop	Emerging Trends in Energy Efficiency	SSN College of Engineering, Chennai	11/02/2022
3	Dr. D.Sathishkumar	Workshop	Emerging Trends in Energy Efficiency	SSN College of Engineering, Chennai	11/02/2022
4	Dr. C.Pazhanimuthu	Expert Talk	Climate Change and Energy Management	Swarnandhra College of Engineering & Technology, Andhra Pradesh	19/02/2022

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	Mr. T.Pranesh	II	EIWTC Activity	Ideathon	KPR Institute of Engineering and Technology, Coimbatore
2	Mr. M.Sarves	II	EIWTC Activity	Ideathon	KPR Institute of Engineering and Technology, Coimbatore
3	Mr. B.Sudeep	II	EIWTC Activity	Ideathon	KPR Institute of Engineering and Technology, Coimbatore

Student Placement Details

S.No.	Student Name	Organization
1	N. Yaswin Krishna	BSH, Chennai
2	S. Ezhil Arasan	Maventic Innovative Solutions Private Limited, Bangalore
3	S. Gokul	Maventic Innovative Solutions Private Limited, Bangalore

Product Development

Product Title	EMPLOYEE ATTENDANCE MONITORING SYSTEM
Name of the Supervisor	Dr.C.Pazhanimuthu Dr.P.Pandiyan Mr.V.Kamal Kumar
Product Description	**OBJECTIVES** ❖ To monitor the employee attendance using QR code scanner through mobile app on the daily basis based on location. ❖ To make a smart e-attendance, avoid the waiting queue and COVID 19 issues. **METHODOLOGY** ❖ The "KPRIET - eAttendance App" is developed for employees and they can use the app to register their attendance with finger print/camera and location in the college campus using mobile. ❖ The scanned data (finger print and location) is verified with the database for marking their attendance. ❖ The location for attendance is validated only within the college campus. ❖ The particular employee unfortunately fail to mark the attendance then they will receive the mail alert on a particular time. **RESULTS AND DISCUSSION** ❖ To monitor the employee attendance using QR code scanner through mobile app on the daily basis. ❖ To monitor the students attendance using mobile app. ❖ To send an attendance report to the concern HoD's in the morning time for ensure the attendance status. ❖ So that they can avoid the loss of pay for that particular day.

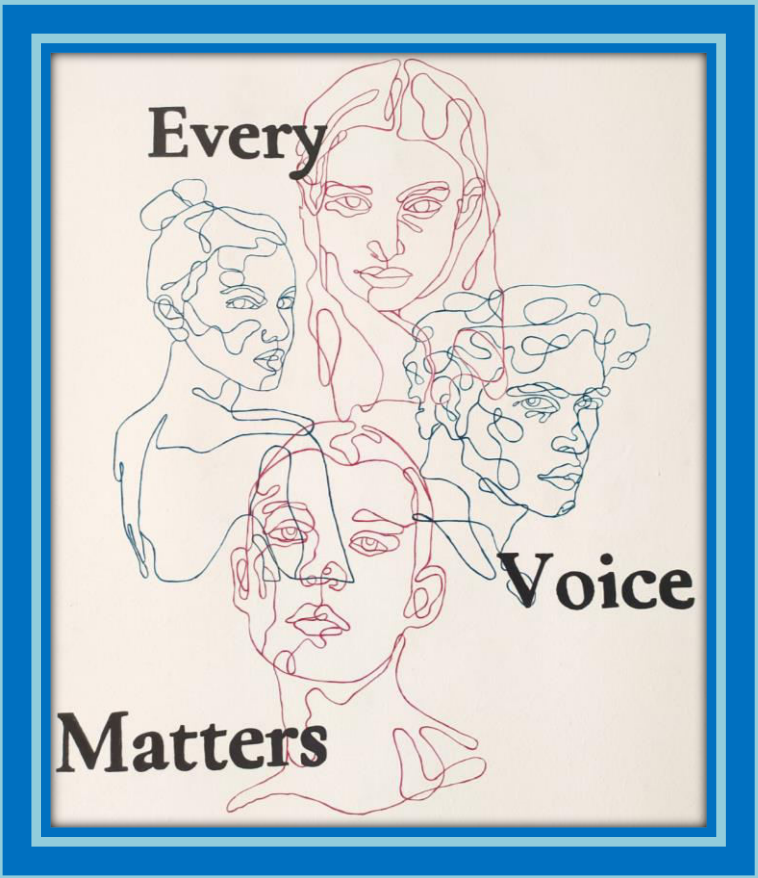
Photograph of the Product	
Project Application	❖ Monitoring the employee attendance in a smart way. ❖ Monitoring the students' attendance using user friendly mobile app. ❖ Sharing of attendance report to the concern higher officials in the morning time for ensure the attendance status.

Student's Corner

ART GALLERY

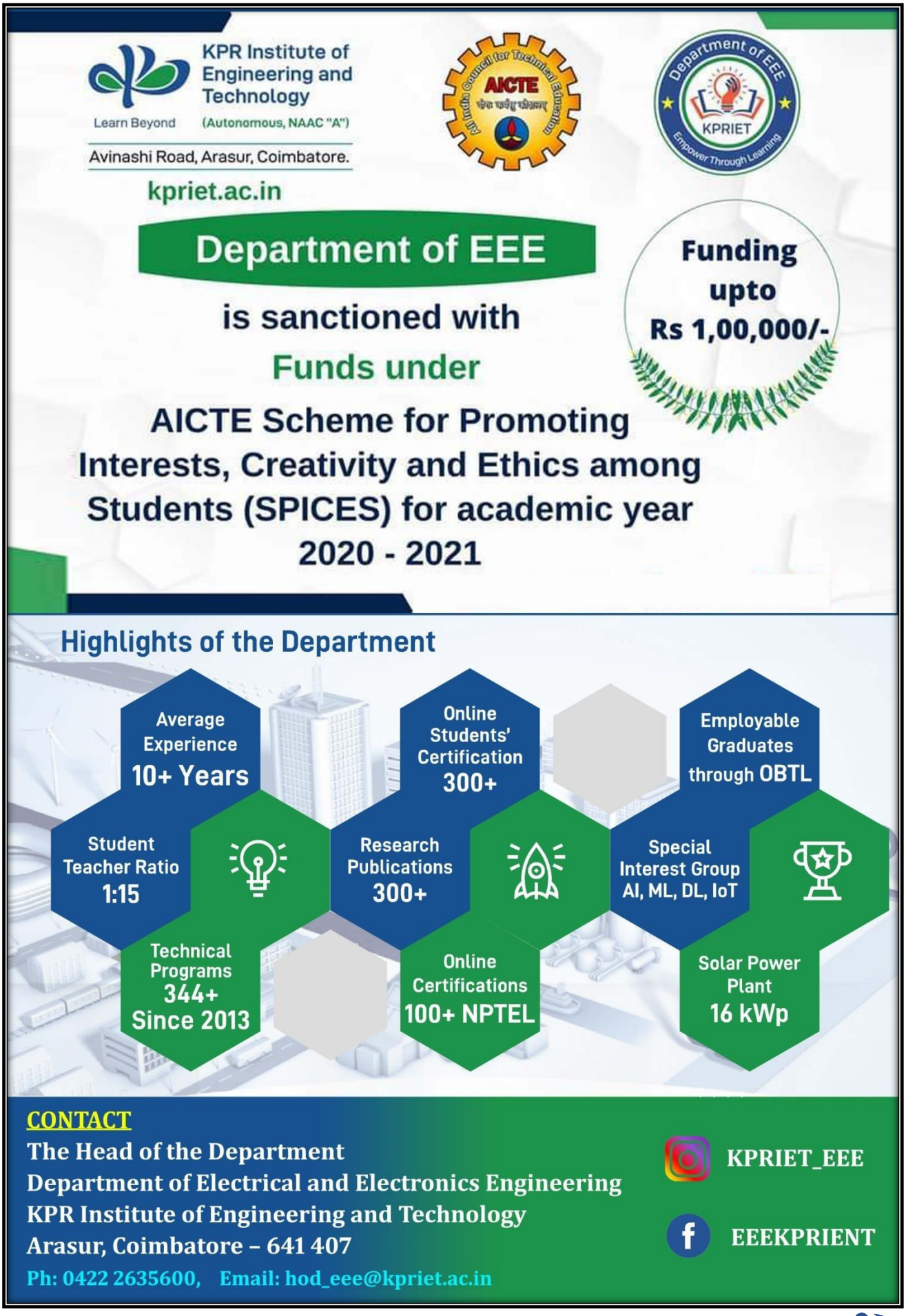
G.Vinothini / IV EEE-B

Student's Corner



ART GALLERY

G.Vinothini / IV EEE-B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Funding upto Rs 1,00,000/-
Highlights of the Department
Average Experience 10+ Years
Online Students' Certification 300+
Employable Graduates through OBTL
Student Teacher Ratio 1:15
Research Publications 300+
Special Interest Group AI, ML, DL, IoT
Technical Programs 344+ Since 2013
Online Certifications 100+ NPTEL
Solar Power Plant 16 kWp
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