KPR Institute of Engineering and Technology

(Autonomous)

Avinashi Road, Arasur, Coimbatore - 641 407

LEARN BEYOND

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

NEWSLETTER

ELECTROBLITZ

VOLUME 6, ISSUE 5

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EDITORIAL BOARD

INDEX

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.Mohanasundaram	Professor
4.	Dr.R .Uthirasamy	Associate Professor
5.	Dr.V.S.Chandrika	Associate Professor
6.	Dr.P.Pandiyan	Associate Professor
7.	Mr.S.Vivekanandan	Assistant Professor (Sl.G)
8.	Mr.G.Sarvanan	Assistant Professor (Sl.G)
9.	Dr.A.Karthick	Assistant Professor (Sl.G)
10.	Mr.R.Sampath Kumar	Assistant Professor (Sl.G)
11.	Mr.A.Gowri Shankar	Assistant Professor (Sr.G)
12.	Mr.D.Sathish Kumar	Assistant Professor (Sr.G)
13.	Ms.B.Lalitha	Assistant Professor (Sr.G)
14.	Ms.V.J .Vijayalakshmi	Assistant Professor (Sr.G)
15.	Ms.R .Revathi	Assistant Professor (Sr.G)
16.	Mr.A.Mohamed Ibrahim	Assistant Professor (Sr.G)
17.	Mr.P.Ravikumar	Assistant Professor (Sr.G)
18.	Dr.C.Pazhanimuthu	Assistant Professor (Sr.G)

19.	Dr.S.Ravindran	Assistant Professor (Sr.G)
20.	Mr.V.Kamal Kumar	Assistant Professor
21.	Mr.K.Balamurugan	Assistant Professor
22.	Mr.C.J.Vignesh	Assistant Professor
23.	Ms.S.Divya	Assistant Professor
24.	Ms.P.Praveena	Assistant Professor
25.	Dr.I.Baranilingesan	Assistant Professor
26.	Mr.C.Dinesh	Assistant Professor
27.	Mr.M.Mohanasundaram	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.	Mr.C.Karuppusamy	Lab Technician
6.	Mr.A.Nandhakumar	Office Assistant

ASSOCIATION ACTIVITIES

Quiz Series on EV Battery Management System

The department of Electrical and Electronics Engineering organized a Quiz program titled **"EV Battery Management System"** on 02.10.2020 open to all, who are keen on emerging EV technologies. The poster is circulated to various Institutions and in social media digitally. The quiz started by 12.00 pm and closed at 08.00 pm. Participants from various colleges, Universities and Industries across India and has participated in this quiz.

• This Quiz had 10 questions covering Electric Vehicles available with various companies and countries.

• Each question carries 10 marks.

• The participants who scored 50% and above were issued with Certificate of Appreciation.
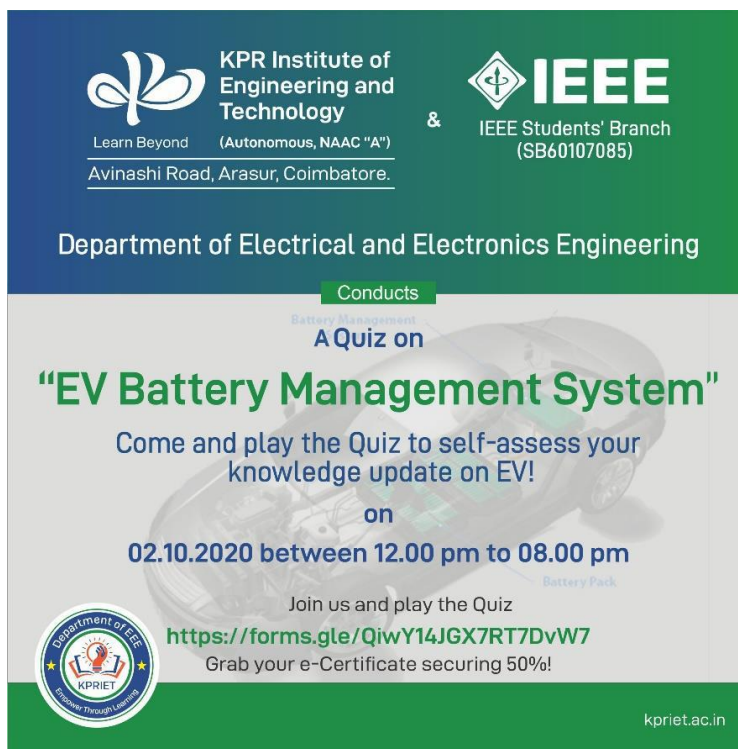
The details of the Program Participants are given below:

Total Participants : 673

Participants cleared the quiz and received Certificate : 622

Participants from other Nations, Institutions and Universities : 567

Participants from KPRIET : 106

Webinar on Career Opportunities for Electrical Engineers

The department of Electrical and Electronics Engineering & Career Advancement Cell organized a webinar on **"Career Opportunities for Electrical Engineers"** on 10.10.2020. A heart-warming welcome remark was delivered by Dr. V. Kumar Chinnaiyan, Professor & Head, Department of EEE. Mr.Karthikeyan Jayadev, Senior Associate, Test Release/ Governance Manager, Cognizant, Chicago, Illinois presented the following deliberations

- Role of Electrical Engineers

- Electrical engineers opportunities in recent field like Electrical vehicle, telecommunications, computer, aerospace, etc.

- How to prepare for interview and add the weight-age in resume

- How to improve the skills related to Electrical Engineering

Students expressed their gratitude towards the resource person for knowledge which he shared. This webinar is interesting for the students. 75 Participants from various institutions have attended the webinar. Dr.I.Baranilingesan, Assistant Professor, Department of EEE proposed the vote of thanks.

Faculty Members Journal Publications

1. **Vijayalakshmi V J**, Guna, Hariharan, Mohan Kumar, "Mitigation of Harmonics in Power Network with Real Time Data Based on Etap", International Journal of Scientific and Technology Research, Vol. 9 (10), October, 2020.

2. **Karpagam J**, Aldrin Jose, Andrew Franklin Raj A, Arunmozhi T M, Kuttiraj G, "Dual Source Self Displaying Water Pumps", International Journal of Engineering and Advanced Technology, Vol. 10 (1), October, 2020.

3. **Praveena P**, Arabi Madharshan, Aravinth, Dheneshraajan, Gokul, "Hybrid Electric Charging Station using Raspberry Pi", International Journal of Engineering and Advanced Technology, Vol. 10 (1), October, 2020.

4. **Uthirasamy R, Karpagam J**, **Kumar Chinnaiyan V, Vijayalakshmi V J**, **Ravikumar P,** "Mitigation of Power Quality Issues on Hybrid Boost Converter: A Comparative Analysis", Journal of Electrical Systems, Vol. 16 (4), October, 2020.

5. **Pazhanimuthu C, Chandrika V S, Baranilingesan I, Ravindran S, Praveena P,** "Implementation of IoT based Smart Energy Management System in College Campus", International Journal of Future Generation Communication and Networking, Vol. 13 (4), October 2020.

6. Jagadesh T, **Balamurugan K, Vivekanandan S, Vignesh C J, Kamalkumar V,** "Design and Analysis of Power Efficient 3-Tap FIR Digital Filter using Folding Architecture", International Journal of Future Generation Communication and Networking, Vol. 13 (4), October 2020.

7. **Uthirasamy R, Karpagam J**, **Umashankar Subramaniam, Vijayalakshmi V J**, "Extended Boost DC-DC-AC Converter for Electric Vehicle Applications", IOP Conference Series:Materials Science and Engineering, IOP Publishing, Vol. 1 (937), October, 2020.

8. S.Chandraprabha, **C.Dinesh, A.Mohamed Ibrahim, G.Saravanan,** "LSTM MLSTM Model Based Wind Speed Forecasting Model Based Wind Speed Forecasting", International Journal of Future Generation Communication and Networking, Vol. 13 (4), October 2020.

9. **Revathi R,** Sevugan Rajesh J, Karthikeyan R, "Hybrid DPSO based MPPT Control of High Static Gain Converter in Photovoltaic System for DC Microgrid Applications", IOP Conference Series:Materials Science and Engineering, IOP Publishing, Vol. 1 (937), October, 2020.

List of Eminent Academicians/Scientists Visited

S.No.	Name and Designation	Organization
1	Mr.Karthikeyan Jayadev Senior Associate	Test Release/ Governance Manager Cognizant, Chicago, Illinois

Faculty Participation in
FDP/Seminar/Workshop/Orientation Program

S.No	Faculty Name	Type of the Event	Event Name	Venue	Duration of the Event
1	Dr.S.Ravindran	ATAL FDP	Electric Vehicles	National Institute of Technology, Puducherry	05/10/2020 - 09/10/2020
2	Mr.D.Sathish Kumar	ATAL FDP	Smart Cities	Kumaraguru College of Technology, Coimbatore	19/10/2020 - 23/10/2020
3	Ms.B.Lalitha	ATAL FDP	Smart Cities	Kumaraguru College of Technology, Coimbatore	19/10/2020 - 23/10/2020
4	Ms.R.Revathi	ATAL FDP	Internet of Things (IoT)	Thiagarajar College of Engineering, Madurai	19/10/2020 - 23/10/2020
5	Dr.C.Pazhanimuthu	ATAL FDP	Internet of Things (IoT)	Thiagarajar College of Engineering, Madurai	19/10/2020 - 23/10/2020
6	Mr.R.Sampathkumar	ATAL FDP	Energy Storage	Indian Institute of Information Technology, Design & Manufacturing, Kancheepuram	27/10/2020 - 31/10/2020
7	Ms.B.Lalitha	ATAL FDP	Energy Storage	Indian Institute of Information Technology, Design & Manufacturing, Kancheepuram	27/10/2020 - 31/10/2020
8	Dr.C.Pazhanimuthu	STTP	Emerging Trends in Micro/Nano Sensors and Actuators for Industrial Application	Sri Manakula Vinayagar Engineering College, Puducherry	26/10/2020 - 31/10/2020
9	Dr.C.Pazhanimuthu	Workshop	Research Challenges in Wireless Sensor Network and Opportunities in IoT	Muthayammal Engineering College, Namakkal	17/10/2020

| 10 | Dr.S.Ravindran | Workshop | Energy Ambassador Program 2020 - Rapid Software Development with Advanced MIT App Inventor | Vellore Institute of Technology, Chennai | 17/10/2020 |
| 11 | Mr.A.Mohamed Ibrahim | Workshop | Getting Aligned to the Publishing Process-Author | Elsevier - Researcher Academy | 25/10/2020 |

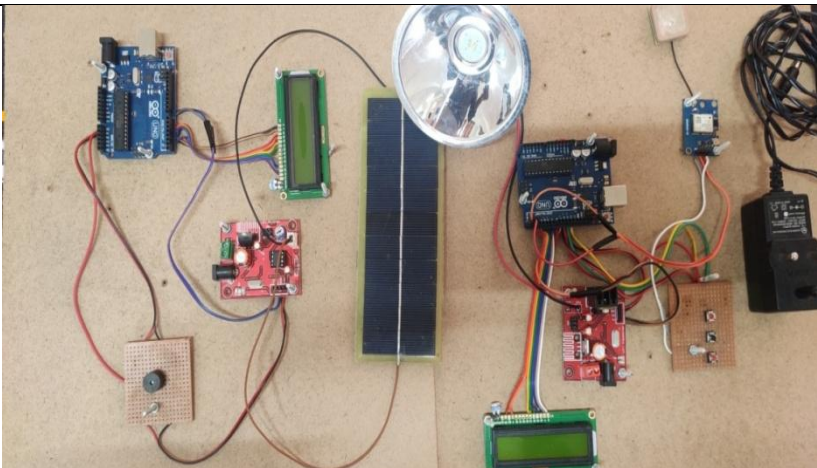## Students Participation in Online Courses/ Workshop/Seminar/Quiz/Paper Presentation

S.No	Student Name	Year	Event Name	Venue/ Conducted by	Duration of the Event
1	Aakash V.	II	Workshop	Vellore Institute of Technology, Chennai	07/10/2020
2	Karthikeyan C.	III	Webinar	Dr.NGP Institute of Technology, Coimbatore	08/10/2020
3	Dhivya S.	III	Quiz	Masters Academy	13/10/2020
4	Karthikeyan C.	III	Quiz	Masters Academy	13/10/2020
5	Vignesh K.	III	Webinar	Google - Perfect Plan B	16/10/2020
6	Kathiresan C.	II	Webinar	Vellore Institute of Technology, Chennai	17/10/2020
7	Vignesh K.	III	Workshop	Vellore Institute of Technology, Chennai	17/10/2020
8	Vignesh K.	III	Workshop	Vellore Institute of Technology, Chennai	17/10/2020
9	Vignesh K.	III	Workshop	Vellore Institute of Technology, Chennai	17/10/2020
10	Rahul Adarsh F.	III	Workshop	Vellore Institute of Technology, Chennai	17/10/2020
11	Rahul Adarsh F.	III	Workshop	Vellore Institute of Technology, Chennai	17/10/2020
12	Rahul Adarsh F.	III	Workshop	Vellore Institute of Technology, Chennai	17/10/2020
13	Rahul Adarsh F.	III	Workshop	Vellore Institute of Technology, Chennai	17/10/2020
14	Aravind B.	III	Workshop	Vellore Institute of Technology, Chennai	17/10/2020
15	Deepak J.	II	Quiz	Sri Krishna College of Arts and Science, Coimbatore	18/10/2020

16	Sushmitha S.P.	II	Training	Mathwork/Training Services	19/10/2020
17	Aravind B.	III	Quiz	Masters Academy	24/10/2020
18	Ashok S.	III	Quiz	Masters Academy	24/10/2020
19	Bala Surya T.	III	Quiz	Masters Academy	24/10/2020
20	Balaji P.A.	III	Quiz	Masters Academy	24/10/2020
21	Bharathwaj N.	III	Quiz	Masters Academy	24/10/2020
22	Boobalan P.	III	Quiz	Masters Academy	24/10/2020
23	Dhivya S.	III	Quiz	Masters Academy	24/10/2020
24	Gokul D.	III	Quiz	Master Academy	24/10/2020
25	Gokul M.	III	Quiz	Master Academy	24/10/2020
26	Karthikeyan C.	III	Quiz	Masters Academy	24/10/2020
27	Kiruthic P.	III	Quiz	Masters Academy	24/10/2020
28	Sindhuja V.	III	Quiz	SVS College of Engineering, Coimbatore	28/10/2020
29	Boobalan P.	III	Coding Challenge	Shah and Anchor Kutchhi Engineering College, Mumbai	30/10/2020
30	Karthikeyan C.	III	Coding Challenge	Shah and Anchor Kutchhi Engineering College, Mumbai	30/10/2020
31	Kiruthic P.	III	Coding Challenge	Shah and Anchor Kutchhi Engineering College, Mumbai	30/10/2020
32	Mohamed Harish M.	III	Coding Challenge	Shah and Anchor Kutchhi Engineering College, Mumbai	30/10/2020
33	Gokul D.	III	Workshop	Energy Swaraj Foundation	30/10/2020

Placement Details

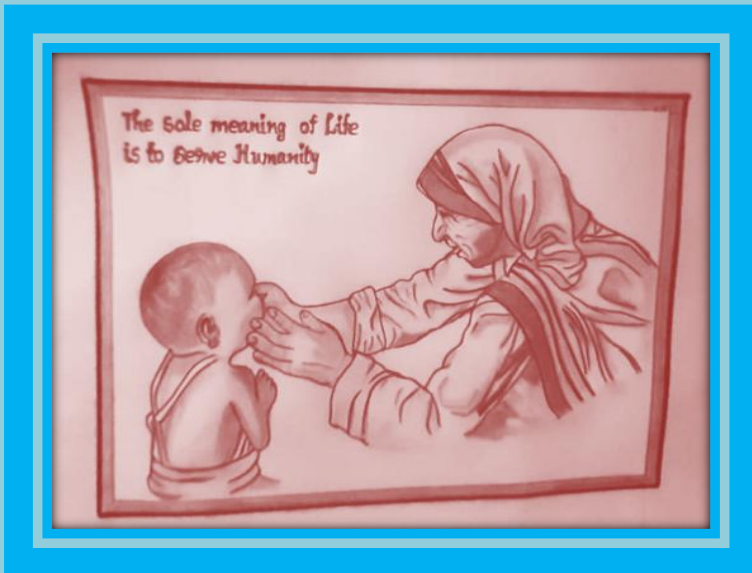|	Student Name	Organization
1	ABISHEK.S.KUMAR	Caliber Interconnect Solutions - Coimbatore
2	GOKULPRASANTH S.	Caliber Interconnect Solutions - Coimbatore

Product Development

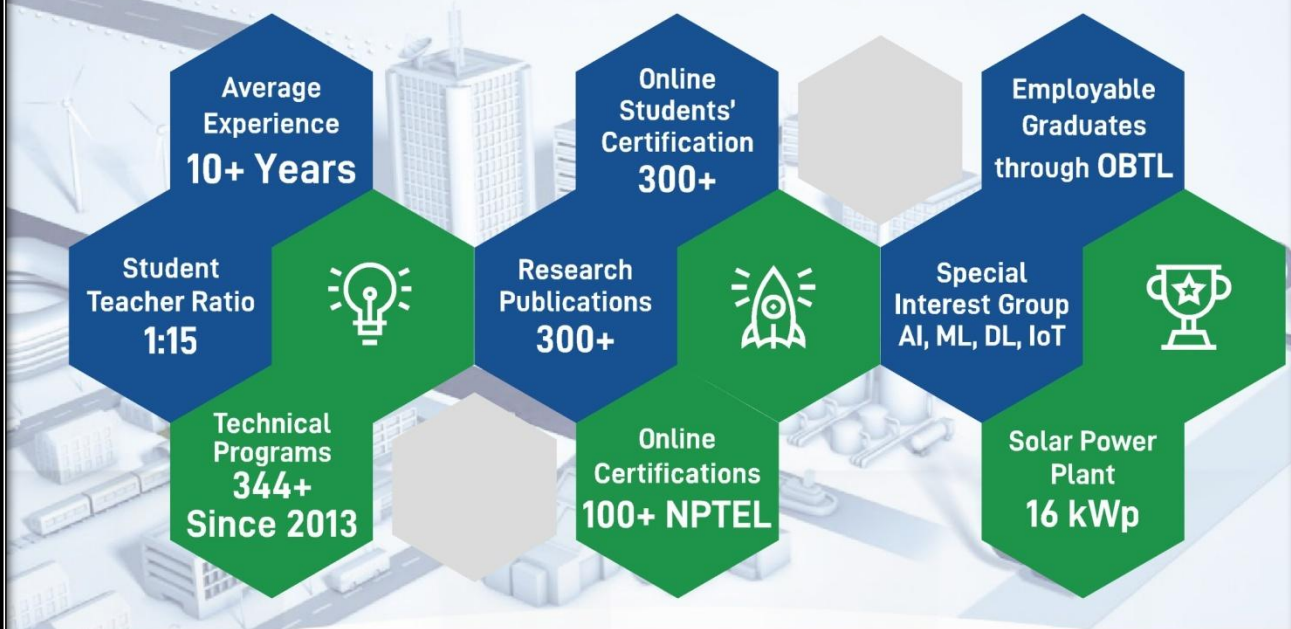|	
Product Title	OPTIMISING BORDER AND PATROL COMMUNICATION OF FISHING BOATES USING LIFI TECHNOLOGY
Name of the Supervisor	Dr. V.S. Chandrika, Associate Professor/EEE
Product Description	Wireless technology has bloomed to a great extent that it requires wireless technology to transmit. Nowadays, fisherman has faced many disaster in the ocean due to communication issues the Li Fi can be overcome the issues. This communications has become important in communication way to transmit wireless data using light intensity to this is data transmission using Visible Light Communication (VLC). It can be used to establish the communication between two boats in unmanned areas. The application can be widely used by people in the border to find the appropriate path to reach the destination. In this mechanism, we have implemented embedded system to save the fishermen life and to avoid the problems between two countries hence make good relationship between them. The fishermen crosses the sub border then the warning signal is given to both the countries and alarm is indicated to fisher men. The boat will automatically stop and if matched to fishermen id, they can proceed to sail the boat or may take any action for crossing border. This provides ease to operate even for illiterate people. The VLC has been used to communicate the data transmission of the boat to base stations it can useful to time of a propagation of the signals.
Photograph of the Product	

Student's Corner

ART GALLERY

The Sole meaning of Life
is to Serve Humanity

Student's Corner

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ART GALLERY

G.Vinothini / III-EEE-B

Department of
Electrical and Electronics Engineering

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**

CONTACT

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