



P.S.R. ENGINEERING COLLEGE



(An Autonomous Institution, Affiliated to Anna University, Chennai)
Accredited by NAAC A+ Grade, NBA and listed Under, 12 (B) of the UGC Act, 1956
Sivakasi - 626140, Virudhunagar (dt), Tamilnadu

NEWS LETTER

May 2023
Volume 13, Issue 2

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

Institute Vision and Mission

Vision

To contribute to the society through excellence in technical education with societal values and thus a valuable resource for industry and the humanity.

Mission

- ❖ To create an ambience for quality learning experience by providing sustained care and facilities.
- ❖ To offer higher level training encompassing both theory and practices with human and social values.
- ❖ To provide knowledge based services and professional skills to adapt tomorrow's technology and embedded global changes.

Department Vision and Mission

Vision

To be a technical hub of creating Electrical and Electronics Engineers with superior quality, human values and ethical views

Mission

- To provide an excellent, innovative and comprehensive education in electrical and electronics engineering.
- To create a conducive learning environment and train the students in the latest technological development domain to enhance carrier opportunities
- To produce competent and disciplined engineers suitable for making a successful career in industry/research.

CONTENTS

* Faculty Activities	03
* Department Activities	10
* Student Activities	23
* Know Your Alumni	29
* Placement Details	30
* Student Article	33

FACULTY ACTIVITIES

NAME OF THE FACULTY	NAME OF THE WORKSHOP/FDP	FDP/STTP	NAME OF THE INSTITUTE/INDUSTRY	DATE AND DURATION (FROM – TO)
Dr.K.PUNITHA	Vehicular Ad-Hoc Networks(VANETS) & Internet of Things(IOT)	FDP	Vellore Institute of Technology	01.04.2023 to 03.04.2023
	Introduction to Machine Learning	NPTEL	IIT Madras	Jan to March 2023
	An Overview of Patents & Procedure for Protection	Workshop	RAMCO Institute of Technology	20.01.2023
	Research Innovations and Emerging Advances in Electrical Engineering	IFDP	Eswari Engineering College	05.01.2023 to 12.01.2023
	Solar Photovoltaics for Sustainable Future	International Webinar	Bharat Institute of Engineering and Technology and Indian Ceramic Society	24.12.2022
Dr R.ARUNA	Microprocessors and Microcontrollers	NPTEL	IIT Madras	January to April 2023
	National Intellectual Property Awareness Mission	Training Program	Government of India, Ministry of commerce and Industry	30.03.2023
	Integrated Artificial Intelligence (AI) in Data science and its Applications in cloud	FDP	Government College of Technology	06.03.2023 to 10.03.2023

	Research Innovations and Emerging Advances in Electrical Engineering	IFDP	Eswari Engineering College	05.01.2023 to 12.01.2023
	M2M &IoT Interface Design & Protocols for Embedded Systems	Coursera Course	University of Colorado Boulder	28.12.2022
	Introduction and Programming with IoT Boards	Coursera Course	Postech Pohang University of Science and Technology	15.12.2022
	Architecting Smart IoT Devices	Coursera Course	Eit Digital Co funded by the European Union	13.12.2022
	Architecting Smart IoT Devices	Coursera Course	EIT Digital	13.12.2022
Dr.M.ULAGANATHAN	Electric Vehicles Part I	FDP	IIT Madras	Jan to Feb 2023
	Electrical Vehicle Motors and Drives: Design Analysis and Validation	FDP	SRM Institute of Science and Technology	20.01.2023 to 25.01.2023
	Research Innovations and Emerging Advances in Electrical Engineering	IFDP	Eswari Engineering College	05.01.2023 to 12.01.2023
Dr.M.CARMEL SOBIA	NBA Accreditation and Teaching and Learning Engineering (NATE)	FDP	IIT Madras	Jan- Apr 2023
	Emerging Technologies on Biomedical Health care applications	FDP	Sathyabama Institute of Science and Technology	12.12.2022 to 17.12.2022
Ms S KRISHNAVENI	Integrated Artificial Intelligence (AI) in Data science and its Applications in cloud	FDP	Government College of Technology	06.03.2023 to 10.03.2023
	Research Innovations and Emerging Advances in Electrical Engineering	IFDP	Eswari Engineering College	05.01.2023 to 12.01.2023

Ms M KANIMOZHI	Integrated Artificial Intelligence (AI) in Data science and its Applications in cloud	FDP	Government College of Technology	06.03.2023 to 10.03.2023
Mr.T.RENGARAJ	Research Innovations and Emerging Advances in Electrical Engineering	IFDP	Eswari Engineering College	05.01.2023 to 12.01.2023
	An Overview of Patents and procedure for protection	Workshop	Ramco institute of Technology	20.01.2023
Mr.A.PRABHU	Recent Trends in Electric Vehicle Technology and Research Opportunities	Workshop	Sri Sivasubramaniya nadir College of Engineering	27.03.2023 to 03.03.2023
	Research Innovations and Emerging Advances in Electrical Engineering	IFDP	Eswari Engineering College	05.01.2023 to 12.01.2023
Mrs.S.VALLIMAYIL	Vehicular Ad-Hoc Networks(VANETS) & Internet of Things(IOT)	FDP	Vellore Institute of Technology	01.04.2023 to 03.04.2023
	Embedded System	FDP	Pantech E Learning Pvt Ltd, Chennai	27.03.2023 to 27.04.2023
	National Intellectual Property Awareness Mission	Training Program	Government of India, Ministry of commerce and Industry	30.03.2023
	Python Full stack Development	FDP	Pantech E Learning Pvt Ltd, Chennai	28.02.2023 to 29.03.2023
	EV Design using MATLAB	FDP	Pantech E Learning Pvt Ltd, Chennai	08.02.2023 to 09.03.2023
	Basics of Electronics	Webinar	Knowledge Downloadable	21.01.2023

Research Innovations and Emerging Advances in Electrical Engineering	FDP	Eswari Engineering College	05.01.2023 to 12.01.2023
Machine Learning	FDP	Pantech E Learning Pvt Ltd, Chennai	11.01.2023 to 10.02.2023
Java Full Stack 2.0 Master Class	FDP	Pantech E Learning Pvt Ltd, Chennai	10.12.2022 to 10.01.2023

JOURNALS LIST

1. S.Saroja, S.Haseena,R.Madavan,” Disolved gas Analysis of Transformer : An Approach Based on ML and MCDM” IEEE transactions on Dielectrics and Electrical Insulation 2023
DOI: 10.1109/TDEI.2023.3271609.
2. Dr.R.Aruna, Jaya Christa Sargunar Thomas, “System Identification, Stability Analysis and PID Controller Design for PEM Electrolyzer” Springer Nature Singapore Smart sensors and Measurement and Instrumentation Vol.957. 3rd March, 2023.
3. M.Yamuna, **R.Madavan** “Imapct nanoparticles mixtures on mineral and pongamia ester oils dielectric strength” Springer Nature, Biomass Conversion and Biorefinery, 2022
<https://doi.org/10.1007/s13399-022-03235-0>.
4. S.Haseena, S.Kavipriya, S.Saroja, **R.Madavan**, M.Muhibbullah and Umashankar Subramaniam “Moth- Flame Optimization for Early Prediction of Heart Diseases” Computational and Mathematical Methods in Medicine DOI:[10.1155/2022/9178302](https://doi.org/10.1155/2022/9178302)
5. S.Haseena, S.Saroja, **R.Madavan**, Alagar Karthick, Bhaskar Pant, and Melkamu Kifetew “ Prediction of the Age and Gender Based on Human Face Images Baed on Deep Learning Algorithm” Computational and Mathematical Methods in Medicine Volume 2022 | Article ID 1413597 | <https://doi.org/10.1155/2022/1413597>.
6. **Dr.K.Punitha** V. Seetharaman D. Devaraj, and V. Selvaganesh “Deep learning based maximum power point prediction for Arduino controlled solar water pumping systems” Songklanakarin Journal of Science and Technology 44 (3), 884–891, May – Jun. 2022.
7. **R.Aruna**, S.T.Jaya Christa and Praveen Paul Jeyapaul “ Modelling analysis and design of

Solar PV based hydrogen energy storage system for residential applications” International journal of Advanced Technology and Engineering Vol 9(91) ISSN(Print): 2394-5443 ISSN (Online): 2394-7454 <http://dx.doi.org/10.19101/IJATEE.2321.875129>.

8. **Dr.M.Carmel Sobia** “Smart foot wear and Tracking system for women security” International Journal of Emerging Technology in Computer Science & Electronics (IJETCSE) ISSN: 0976-1353 Volume 30 Issue 1 – JANUARY 2023

CONFERENCE LIST

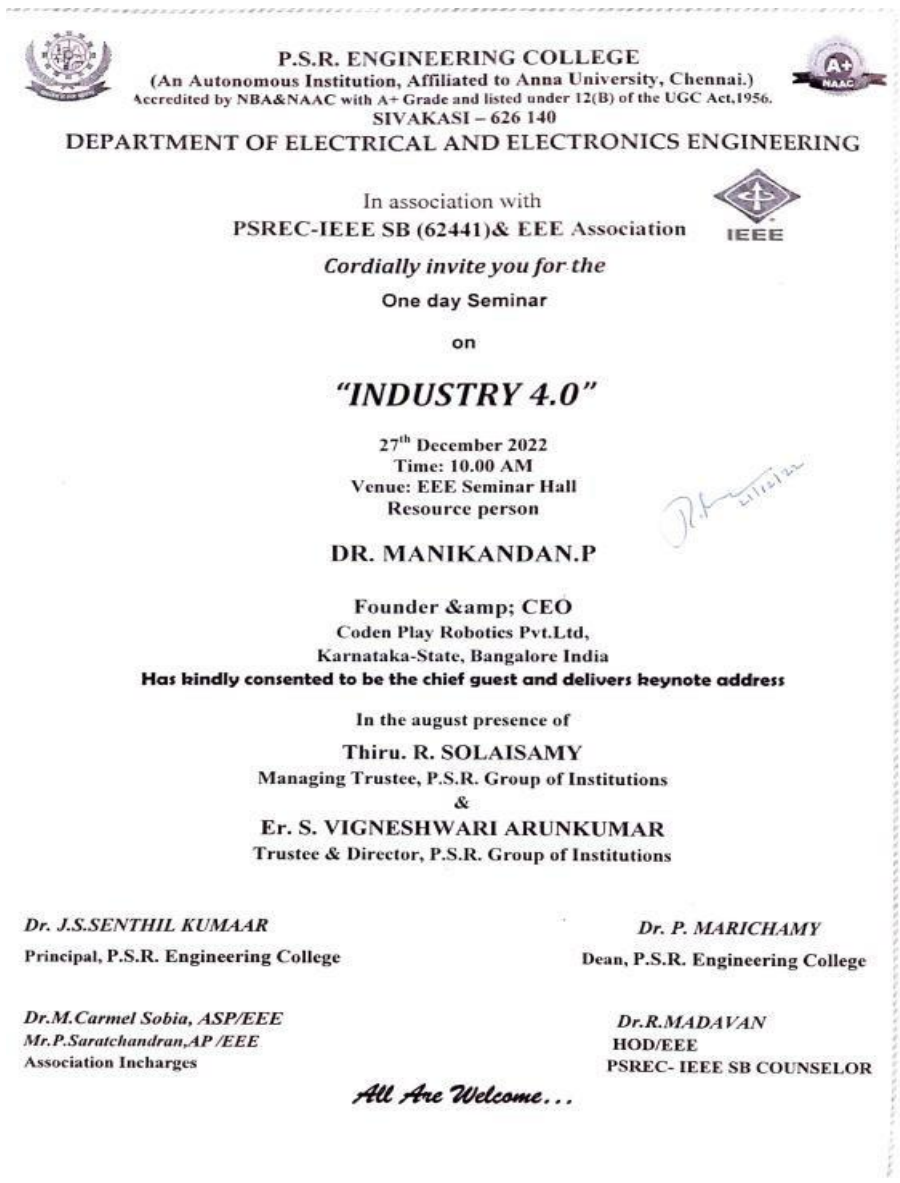
1. **Dr.R.Madavan**, “Novel Portable Hybrid Renewable Energy Based Concrete Pipe Water Heater” International Conference on Renewable and Sustainable Energy Technologies (RESET - 2023) organized by the Department of Electrical and Electronics Engineering, during 22 -23 March 2023.
2. **Dr.R.Madavan**, “IoT based Voice Control Wheel Chair” International Conference organized by Paavai Engineering College 17th March 2023.
3. **R. Madavan** “On the Loading and Workability of Synthetic Ester Filled Transformers” IEEE International Conference on Electrical, Computer and Communication Technologies (ICECCT 2023) 22 - 24, February 2023.
4. **Dr.K.Punitha**, “Wireless power Transfer System” in the international conference organized by Paavai Engineering College on 17th March 2023.
5. **Dr.K.Punitha**, “Generation of Power using Horse Herd Optimization Algorithm for photovoltaic Solar System” International Conference on Advancements in Automotive Technology- 2023 organized by Automobile Engineering at Bannari Amman Institute of Technology held on 5th and 6th April 2023.
6. **Dr.K.Punitha**, “Single Phase Voltage Source Inverter for Harmonics Mitigation” International Conference on Advancements in Automotive Technology- 2023 organized by Automobile Engineering at Bannari Amman Institute of Technology held on 5th and 6th April 2023.
7. **Dr.R.Muniraj** and Dr.M.Ulaganathan “Design and Evaluation of MPPT Based Two Stage Battery Charging Scheme For A Solar PV Lightning System” IEEE International conference

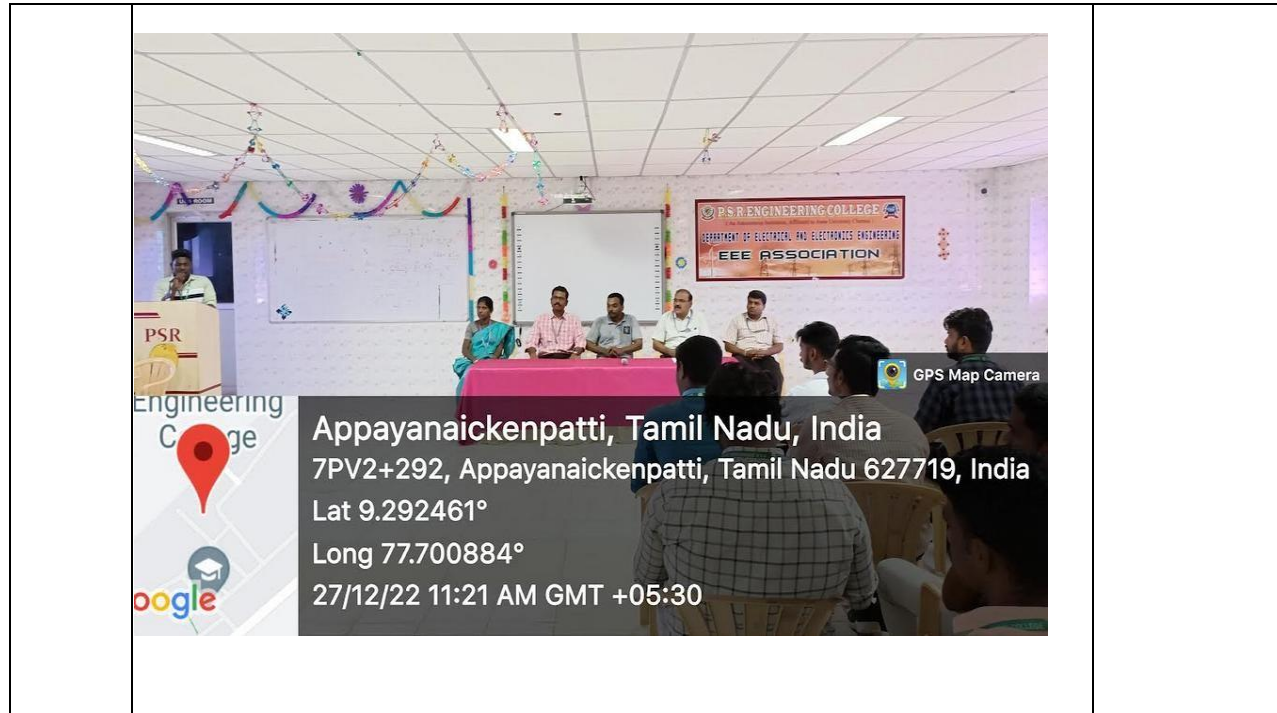
- on Innovation in Science and Technology for Sustainable Development August 25 and 26 2022.
8. **Dr.R.Muniraj** “A comparative analysis on super capacitor based HEV” ISET International Conference on Applied Science & Engineering, AIP Conference Proceedings <https://doi.org/10.1063/5.0120011> 24.03.2023
 9. **Dr.R.Aruna**, Jaya Christa Sargunar Thomas, “System Identification, Stability Analysis and PID Controller Design for PEM Electrolyzer” Springer Nature Singapore Smart sensors and Measurement and Instrumentation Vol.957. 3rd March, 2023.
 10. **Dr.R.Aruna**, “Fast Charging System for Electric Vehicle Using LUO Converter” International Conference on Advancements in Automotive Technology- 2023 organised by Automobile Engineering at Bannari Amman Institute of Technology held on 5th and 6th April 2023.
 11. **Dr.R.Muniraj** and **Dr.M.Ulaganathan** “Quasi Z Source Inverter Fed Induction Motor Drive Using Chaotic Carrier Sinusoidal PWM” IEEE International conference on Innovation in Science and Technology for Sustainable Development August 25 and 26 2022.
 12. **Dr.M.Carmel Sobia** “Smart wireless power transmission system for Autonomous EV charging” International Conference on Advancements in Automotive Technology- 2023 organised by Automobile Engineering at Bannari Amman Institute of Technology held on 5th and 6th April 2023.
 13. **Dr.M.Carmel Sobia**, "IoT Based Physiological Data Monitoring For Construction Worker" International Conference on Smart Engineering for Renewable Energy Technologies - 2023 (ICSERET - 2023) organized by Department of Electrical and Electronics Engineering, Ramco Institute of Technology, Rajapalayam on 24 & 25 March 2023.
 14. **Dr.M.Carmel Sobia** “Transmission tower tilt monitoring system using Wireless Technology” International Conference on Advancements in Automotive Technology- 2023 organised by Automobile Engineering at Bannari Amman Institute of Technology held on 5th and 6th April 2023.
 15. **Mrs.S.Krishnaveni** and **Mrs.M.Kanimozhi**, “ On board Battery Charger for BLDC Based Electric Vehicles” National level conference Renewable Energy for Electric Vehicle Charging system organized by the department of Electrical and Electronics Engineering on

17th March 2023.

16. **Mrs.S.Krishnaveni**, “Solar panel Fault Monitoring System Through IoT” International Conference on smart Engineering for renewable Energy Technologies- 2023 organized by Department of Electrical and Electronics Engineering, Ramco Institute of Technology, 24 and 25 March 2023.
17. **Mr.S.Ramarj**, “Detection of fire Accident and Prevented by Automated ChainPulling Mechanism” in the international conference organized by Paavai Engineering College on 17th March 2023.
18. **Mr.T.Rengaraj**, “Automated Tracking and water cooling systemfor Solar Panel” in the international conference organized by Paavai Engineering College on 17th March 2023.
19. **Mrs.M.Kanimozhi** and Mrs.S.Krishnaveni “Optimal load sharing in a micro grid Integrated with renewable Energy System” International Conference on Advancements in Automotive Technology- 2023 organized by Automobile Engineering at Bannari Amman Institute of Technology held on 5th and 6th April 2023.
20. **S.Vallimayil**, “Evaluation of Harvesting Energy from Pedestrians using pizeo electric Sensors” in the international conference organized by Paavai Engineering College on 17th March 2023.
21. **R.Palselvam**, “System to Identify Drunk Driving and Avoid Auto Accidents” in the international conference organized by Paavai Engineering College on 17th March 2023.

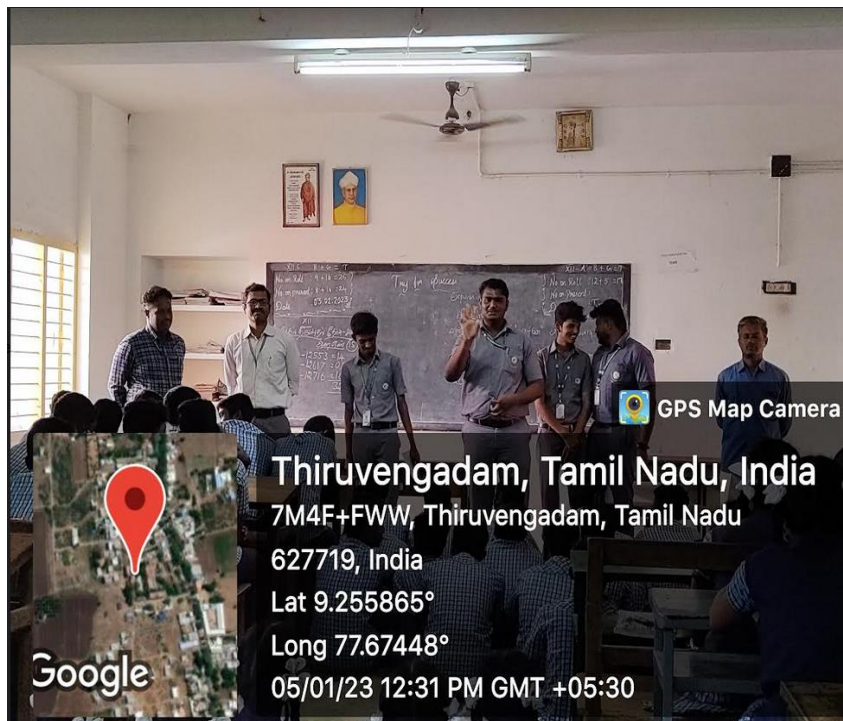
DEPARTMENT ACTIVITIES

Sl. No	Name of the Event	Date
1.	<p>ONE DAY SEMINAR ON INDUSTRY 4.0</p>  <p>The invitation card is for a one-day seminar on Industry 4.0 held at P.S.R. Engineering College. It is organized by the Department of Electrical and Electronics Engineering in association with PSREC-IEEE SB (62441) and IEEE. The seminar is on December 27, 2022, at 10:00 AM in the EEE Seminar Hall. The resource person is Dr. Manikandan P., Founder & CEO of Coden Play Robotics Pvt. Ltd., Bangalore. He has kindly consented to be the chief guest and deliver a keynote address. The card is signed by Dr. J.S. Senthil Kumar, Principal, and Dr. P. Marichamy, Dean. Other staff members listed include Dr. M. Carmel Sobia, Mr. P. Sarachandran, Dr. R. Madavan, and PSREC-IEEE SB Counselor.</p>	27.12.2022






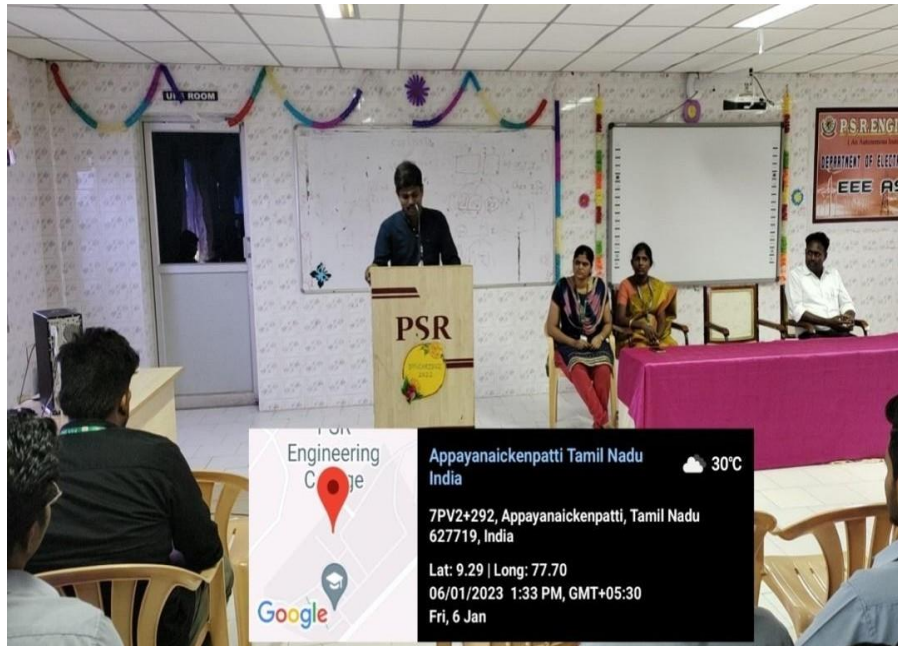
2. Social Awareness Program On Electrical Energy Conservation and Electrical Safety

05.01.2023



P.S.R. Engineering College (Autonomous Institution)
Vol, 13 Issue: 2 May 2023

3.	<p style="text-align: center;">ONE DAY SEMINAR ON EMBEDDED SYSTEM</p> <div style="display: flex; justify-content: space-between;"><div data-bbox="446 451 1096 567" style="text-align: center;"><p>P.S.R. ENGINEERING COLLEGE (An Autonomous Institution, Affiliated to Anna University, Chennai.) Accredited by NBA&NAAC with A+ Grade and listed under 12(B) of the UGC Act, 1956. SIVAKASI – 626 140</p></div></div> <p style="text-align: center;">DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING</p> <p style="text-align: center;">In association with  PSREC-IEEE SB (62441) & EEE Association</p> <p style="text-align: center;"><i>Cordially invite you for the</i> One day Seminar ON “EMBEDDED SYSTEM”</p> <p style="text-align: center;">06th January 2023 Time: 1.00 PM Venue: EEE Seminar Hall Resource person</p> <p style="text-align: center;">Er. THANGARAJ.M Software Engineer Accelerite BU, Persistent Systems, Tamilnadu, India</p> <p style="text-align: center;">Has kindly consented to be the chief guest and delivers keynote address</p> <p style="text-align: center;">In the august presence of Thiru. R. SOLAISAMY Managing Trustee, P.S.R. Group of Institutions & Er. S. VIGNESHWARI ARUNKUMAR Trustee & Director, P.S.R. Group of Institutions</p> <div style="display: flex; justify-content: space-between;"><div data-bbox="337 1627 665 1711"><p><i>Dr. J.S.SENTHIL KUMAAR</i> Principal, P.S.R. Engineering College</p></div><div data-bbox="893 1627 1193 1711"><p><i>Dr. P. MARICHAMY</i> Dean, P.S.R. Engineering College</p></div></div> <div style="display: flex; justify-content: space-between;"><div data-bbox="337 1753 609 1858"><p><i>Dr.M.Carmel Sobia, ASP/EEE</i> <i>Mr.P.Saratchandran, AP/EEE</i> Association Incharges</p></div><div data-bbox="917 1753 1201 1858"><p><i>Dr.R.MADAVAN</i> HOD/EEE PSREC- IEEE SB COUNSELOR</p></div></div> <p style="text-align: center;"><i>All Are Welcome...</i></p>	06.01.2023
----	--	------------



4. HANDS ON TRAINING ON POSTER DESIGN USING PIXEL LAB

07.01.2023



P.S.R. Engineering College (Autonomous Institution)
Vol, 13 Issue: 2 May 2023



P.S.R. ENGINEERING COLLEGE
(An Autonomous Institution, Affiliated to Anna University, Chennai.)
Accredited by NBA&NAAC with A+ Grade and listed under 12(B) of the UGC Act,1956.
SIVAKASI – 626 140



DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

In association with
EEE Association & PSREC-IEEE SB (62441)



Cordially invite you for the
One day

*“Hands on Training on
Poster Design using Pixel Lab”*

07th January 2023
Time: 1.00 Pm to 4.00 Pm
Venue: EEE Seminar Hall

In the august presence of
Thiru. R. SOLAISAMY
Managing Trustee, P.S.R. Group of Institutions
&
Er. S. VIGNESHWARI ARUNKUMAR
Trustee & Director, P.S.R. Group of Institutions

Poster / 06/01/2023

Dr. J.S.SENTHIL KUMAAR
Principal, P.S.R. Engineering College

Dr. P. MARICHAMY
Dean, P.S.R. Engineering College

Dr.M.Carmel Sobia, ASP/EEE
Mr.P.Saratchandran, AP /EEE
Association Incharges

Dr.R.MADAVAN
HOD/EEE
PSREC- IEEE SB COUNSELOR

Mr.M. Mohammed Nazar, Final EEE
Mr. P.Mahesh Boopathi, final EEE
Students Coordinators

All Are Welcome...

5. ONE DAY SEMINAR ON INDUSTRIAL AUTOMATION USING
PLC

21.01.2023

The poster is for a seminar titled "INDUSTRIAL AUTOMATION USING PLC" held on 21st January 2023. It is organized by the Department of Electrical and Electronics Engineering at P.S.R. Engineering College, an autonomous institution affiliated to Anna University, Chennai. The college is accredited by NBA & NAAC with an A+ grade. The seminar is in association with PSREC-IEEE SB (62441) and the IEEE Association. It is cordially invited by Thiru. R. SOLAISAMY, Managing Trustee, and Er. S. VIGNESHWARI ARUNKUMAR, Trustee & Director, of the P.S.R. Group of Institutions. The seminar will take place at the IEEE Seminar Hall from 1:00 PM to 4:00 PM. A list of participants, including faculty and student coordinators, is provided at the bottom. The poster is signed by Dr. P. Marichamy, Dean, on 21/01/2023.

P.S.R. ENGINEERING COLLEGE
(An Autonomous Institution, Affiliated to Anna University, Chennai.)
Accredited by NBA&NAAC with A+ Grade and listed under 12(B) of the UGC Act,1956.
SIVAKASI – 626 140

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

In association with
PSREC-IEEE SB (62441) & IEEE Association

Cordially invite you for the
One day Seminar On

“INDUSTRIAL AUTOMATION USING PLC”

21st January 2023
Time: 1.00 Pm to 4.00 Pm
Venue: IEEE Seminar Hall

In the august presence of
Thiru. R. SOLAISAMY
Managing Trustee, P.S.R. Group of Institutions
&
Er. S. VIGNESHWARI ARUNKUMAR
Trustee & Director, P.S.R. Group of Institutions

Dr. J.S.SENTHIL KUMAAR
Principal, P.S.R. Engineering College

Dr. P. MARICHAMY
Dean, P.S.R. Engineering College

Dr.M.Carmel Sobia,ASP/EEE
Mr.P.Sarath Chandran,AP/EEE
Association Incharge

Dr.R.Madavan
HOD/EEE
PSREC – IEEE SB COUNSELOR

Mr.S.Mohit,Second Year/EEE
Mr.S.Mukesh Kannna, Second Year/EEE
Mr.M.Muruganath, Second Year/EEE
Mr.M.Thilagaraj, Second Year/EEE
Mr.M.Saravana Selvam, Second Year/EEE
Student Coordinators

All Are Welcome...

Dr.P. Marichamy
21/01/2023

	 <p>Engineering Create</p> <p>GPS Map Camera</p> <p>Appayanaickenpatti, Tamil Nadu, India 7PV2+292, Appayanaickenpatti, Tamil Nadu 627719, India Lat 9.292535° Long 77.701009° 21/01/23 01:36 PM GMT +05:30</p>	
6.	<p>ONE DAY HANDS ON TRAINING ON PCB DESIGN</p>  <p>GPS Map Camera</p> <p>Appayanaickenpatti, Tamil Nadu, India 7PV2+292, Appayanaickenpatti, Tamil Nadu 627719, India Lat 9.292657° Long 77.700924° 28/01/23 10:32 AM GMT +05:30</p>	28.01.2023

P.S.R. Engineering College (Autonomous Institution)
Vol, 13 Issue: 2 May 2023



P.S.R. ENGINEERING COLLEGE
(An Autonomous Institution, Affiliated to Anna University, Chennai.)
Accredited by NBA & NAAC with A+ Grade and listed under 12(B) of the UGC Act, 1956.
SIVAKASI - 626 140



DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

In association with
EEE Association & PSREC-IEEE SB (62441)



Cordially invite you for the
One day "Hands on Training" on

"PCB Design"

28th January 2023
Time: 10.00 am to 4.00 pm
Venue: EEE Power electronics laboratory

In the august presence of
Thiru. R. SOLAISAMY
Managing Trustee, P.S.R. Group of Institutions
&
Er. S. VIGNESHWARI ARUNKUMAR
Trustee & Director, P.S.R. Group of Institutions

Dr. J.S.SENTHIL KUMAR
Principal, P.S.R. Engineering College

Dr.P.Marichamy
Dean, P.S.R. Engineering College

Dr.M.Carmel Sobia, ASP/EEE
Mr.P.Sarathchandran, AP /EEE
Association Incharges

Dr.R.MADHAVAN
HoD ,EEE
PSREC-IEEE SB Counsellor

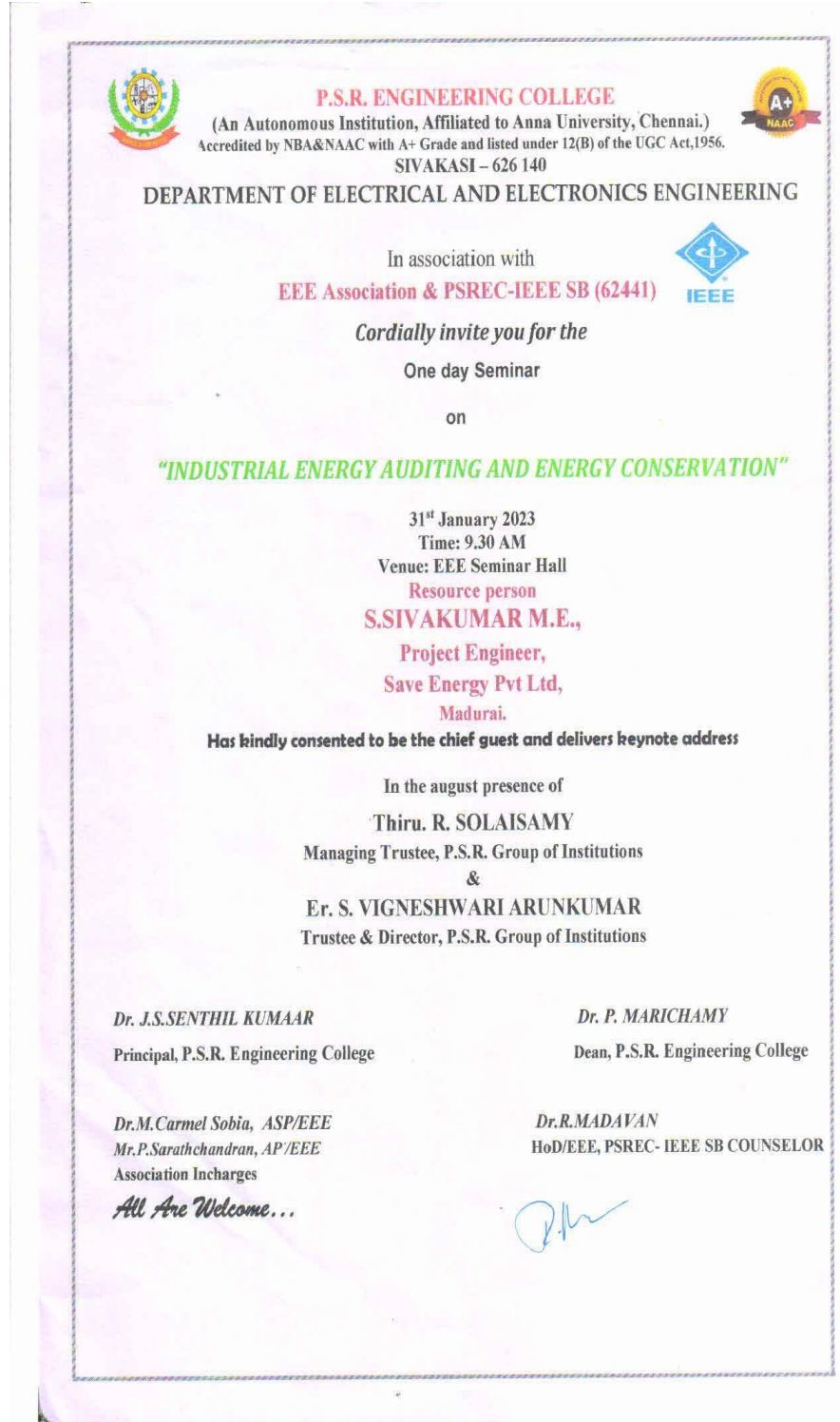
G.Guruvel Sarveshwar, IIIrd Year EEE
G.Murugaraj, IIIrd Year EEE
Student coordinators

All are Welcome....

7.

ONE DAY SEMINAR ON INDUSTRIAL ENERGY AUDITING
AND ENERGY CONSERVATION


31.01.2023



The image shows a formal invitation card for a seminar. At the top left is the P.S.R. Engineering College logo, and at the top right is the NAAC A+ accreditation logo. The text in the center reads: 'P.S.R. ENGINEERING COLLEGE (An Autonomous Institution, Affiliated to Anna University, Chennai.) Accredited by NBA&NAAC with A+ Grade and listed under 12(B) of the UGC Act,1956. SIVAKASI - 626 140 DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING In association with IEEE logo, EEE Association & PSREC-IEEE SB (62441) Cordially invite you for the One day Seminar on "INDUSTRIAL ENERGY AUDITING AND ENERGY CONSERVATION" 31st January 2023 Time: 9.30 AM Venue: EEE Seminar Hall Resource person S.SIVAKUMAR M.E., Project Engineer, Save Energy Pvt Ltd, Madurai. Has kindly consented to be the chief guest and delivers keynote address In the august presence of Thiru. R. SOLAISAMY Managing Trustee, P.S.R. Group of Institutions & Er. S. VIGNESHWARI ARUNKUMAR Trustee & Director, P.S.R. Group of Institutions At the bottom, there are names and titles of the Principal, Dean, and Association Incharges, along with a handwritten signature and the phrase 'All Are Welcome...'

P.S.R. ENGINEERING COLLEGE
(An Autonomous Institution, Affiliated to Anna University, Chennai.)
Accredited by NBA&NAAC with A+ Grade and listed under 12(B) of the UGC Act,1956.
SIVAKASI - 626 140

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

In association with
EEE Association & PSREC-IEEE SB (62441) 

Cordially invite you for the
One day Seminar
on
"INDUSTRIAL ENERGY AUDITING AND ENERGY CONSERVATION"

31st January 2023
Time: 9.30 AM
Venue: EEE Seminar Hall
Resource person
S.SIVAKUMAR M.E.,
Project Engineer,
Save Energy Pvt Ltd,
Madurai.

Has kindly consented to be the chief guest and delivers keynote address

In the august presence of
Thiru. R. SOLAISAMY
Managing Trustee, P.S.R. Group of Institutions
&
Er. S. VIGNESHWARI ARUNKUMAR
Trustee & Director, P.S.R. Group of Institutions


Dr. J.S.SENTHIL KUMAAR
Principal, P.S.R. Engineering College

Dr. P. MARICHAMY
Dean, P.S.R. Engineering College

Dr.M.Carmel Sobia, ASP/EEE
Mr.P.Sarathchandran, AP/EEE
Association Incharges

Dr.R.MADAVAN
HoD/EEE, PSREC- IEEE SB COUNSELOR

All Are Welcome...

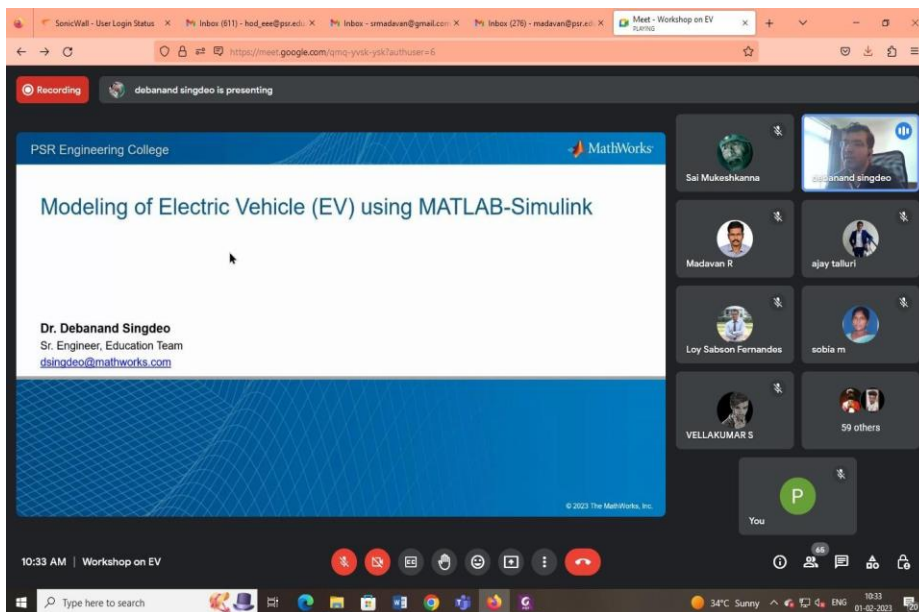




8.

**ONE DAY WORSHIP ON ELECTRICAL VEHICLE USING
MATLAB**

01.02.2023



P.S.R. Engineering College (Autonomous Institution)
Vol, 13 Issue: 2 May 2023

 **P.S.R. ENGINEERING COLLEGE**
(An Autonomous Institution, Affiliated to Anna University, Chennai.)
Accredited by NBA&NAAC with A+ Grade and listed under 12(B) of the UGC Act,1956. 

SIVAKASI – 626 140


DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

In association with

 PSREC-IEEE SB (62441) & EEE Association


Cordially invite you for the One Day Workshop

on

"Electric Vehicle using Matlab" 

1st February, 2023
Time: 10.00 AM
Venue: EEE Seminar Hall

Resource person

 **Ajay Talluri**
Customer Success Specialist,
Education Team MathWorks, Bangalore

 **Deb Singdeo**
Engineer,
Education Team MathWorks, Bangalore

Has kindly consented to be the chief guest and delivers keynote address

In the august presence of

Thiru. R. SOLAISAMY
Managing Trustee, P.S.R. Group of Institutions
&
Er. S. VIGNESHWARI ARUNKUMAR
Trustee & Director, P.S.R. Group of Institutions


Dr. J.S.SENTHIL KUMAAR
Principal, P.S.R. Engineering College

Dr. P. MARICHAMY
Dean, P.S.R. Engineering College

Dr.M.Carmel Sobia, ASP/EEE
Mr.P.Sarathchandran, AP/EEE
Association Incharges

Dr.R.MADAVAN
HoD/EEE, PSREC- IEEE SB COUNSELOR



All Are Welcome...

 31/1/23


9.

Design Compact Arduino with Easy EDA

11.02.2023

 **P.S.R. ENGINEERING COLLEGE**
(An Autonomous Institution, Affiliated to Anna University, Chennai.)
Accredited by NBA&NAAC with A+ Grade and listed under 12(B) of the UGC Act, 1956.
SIVAKASI – 626 140 

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

In association with 
EEE Association & PSREC-IEEE SB (62441)

Cordially invite you for the
One day Workshop

on

“Design Compact Arduino with Easy EDA”

11th February 2023
Time: 9.30 AM
Venue: EEE Seminar Hall
Resource person

Mr. G. Vijayavenkadesh
Project Engineer
Avalon Technologies Limited
Tambaram, Chennai
Has kindly consented to be the chief guest and delivers keynote address

In the august presence of
Thiru. R. SOLAISAMY
Managing Trustee, P.S.R. Group of Institutions
&
Er. S. VIGNESHWARI ARUNKUMAR
Trustee & Director, P.S.R. Group of Institutions

Dr. J.S.SENTHIL KUMAAR
Principal, P.S.R. Engineering College

Dr. P. MARICHAMY
Dean, P.S.R. Engineering College

Dr. M. Carmel Sobia, ASP/EEE
Mr. P. Saratchandran, AP/EEE
Association Incharges

Dr. R. MADAVAN
HOD/EEE
PSREC- IEEE SB COUNSELOR

All Are Welcome...



STUDENT ACTIVITIES

NPTEL ONLINE COURSES:

Name of the student	Duration of the course	Title of the course
S.Mukeshkanna	8 weeks(January 23- March 23)	Automatic control(Elite)
K.Abirami	8 weeks(January 23- March 23)	Automatic control
P.Prakash Raj	4 weeks(January 23- February 23)	Electric Vehicle- Part 1(Elite)
A.Dineshkumar	4 weeks(January 23- February 23)	Electric Vehicle- Part 1
S.Mukeshkanna	4 weeks(January 23- February 23)	Python for Data Science(Elite)
M.Saravana Selvam	4 weeks(January 23- February 23)	Python for Data Science

INTERNSHIPS AND INPLANT TRAINING:

S.No	Name of the Participant	Duration (from to)	Title of the linkage	Name of the partnering industry/ institution/research lab
1.	Vignesh M.A	12.12.2022 to 16.12.2022	Internship	National Small Industries Corporation, Chennai
2.	Kalyanisundaram P			
3.	Vijayakumar R			
4.	GopiKrishna P			
5.	Vengadesh G			
6.	Rajeshkumar S			
7.	Manoj S			
8.	Kesavan S			
9.	Robert S	02.01.2023 to 06.01.2023	Inplant Training	33/11kv substation, Nakalamuthanmpatti
10.	Kamalesh K			
11.	Hariharan A			
12.	Vijayaraj R			
13.	Eniyanambirajan G	12.12.2022 to 17.12.2022	Inplant Training	Tamil Nadu Cements Corporation Limited Alangulam
14.	Murugaraj G			
15.	SikkantharMydeen R			

P.S.R. Engineering College (Autonomous Institution)
Vol, 13 Issue: 2 May 2023

16.	Yogeshwaran P			
17.	Abinesh K			
18.	SarathPrabhakaran A.M	13.12.2022 to 17.12.2022	Inplant Training	110/11kV Sankarankovil substation
19.	MuhamedArsath M			
20.	Gowtham Raj S	13.12.2022 to 17.12.2022	Inplant Training	Loyal Textile Mills Ltd
21.	Muthuselvi R	12.12.2022 to 17.12.2022	Internship	Pebbles Electronics
22.	Surya V	13.12.2022 to 17.12.2022	Inplant Training	TNEB SS, Puliyangudi
23.	Surya K			
24.	Muthu Pradeep			
25.	Paul Daniel A			
26.	Ganesh R			
27.	S.Saran Kumar	07.12.2022 to 15.12.2022	Inplant Training	Salzer Electronics Ltd.
28.	C.ArunPrashath	15.12.2022 to 31.12.2022	Internship	TEDI (India) Private Limited
29.	J.Dineshkumar	22.01.2023 to 04.02.2023	Internship	Tamil Nadu Cements Corporation Ltd., Alangulam
30.	M.Rajeshwaran			
31.	J.Vikram			
32.	P.Lakshmanaraj			
33.	P.Gangatharan	06.02.2023 to 11.02.2023	Internship	Tamil Nadu Cements Corporation Ltd., Alangulam
34.	K.Ravikumar	24.01.2023 to 11.02.2023	Internship	Doowon Electronics India Private Limited, Oragadam
35.	P.Krishnamoorthy	30.01.2023 to 14.02.2023	Internship	NC John & Sons (P) Ltd, Tuticorin
36.	S.Kirthickroshan			
37.	R.Sarankumar			
38.	M.MohammedNazar			
39.	M.AhamedAsick	06.02.2023 to 20.02.2023	Inplant Training	Tamil Nadu Cements Corporation Ltd., Alangulam
40.	K.Dharmaraj			
41.	M.Muthukumar			
42.	T.Karthick			
43.	V.Jeyasimman			
44.	R.ManishPrabhu			
45.	J.Dinesh	02.01.2023 to 20.01.2023	Internship	Sri JayavilasSubbaraj, Spinning Mills (P) Ltd
46.	S.Rukkumani	13.02.2023 to	Internship	Spiro Solutions Pvt

P.S.R. Engineering College (Autonomous Institution)
Vol, 13 Issue: 2 May 2023

47.	N.Ushanandhini	26.02.2023		Ltd
48.	M.Vinoth Kumar	01.02.2023 to 20.02.2023	Internship	The Ramco Cements Limited
49.	S.Vignesh	22.02.2023 to 09.03.2023	Inplant Training	Tamil Nadu Cements Corporation Ltd., Alangulam
50.	R.Dhamotharakannan			
51.	S.VeeraManikandan			
52.	S.Anguraj			
53.	E.Shanmuga Kumar			
54.	J.Gopikannan			
55.	A.Mohanraj	08.02.2023 to 10.03.2023	Internship	Innowell Engineering International Pvt Ltd, Chennai
56.	K.Pothiraj			
57.	P.Manoranjith	25.01.2023 to 23.02.2023	Internship	The Ramco Cements Limited
58.	M.Dinesh Krishnan	20.02.2023 to 24.02.2023	Inplant Training	110/11kV Substation, Kadayanallur
		06.03.2023 to 16.03.2023	Inplant Training	Tamil Nadu Cements Corporation Ltd., Alangulam
59.	M.Manoj	27.02.2023 to 12.03.2023	Internship	Tamil Nadu Cements Corporation Ltd., Alangulam
60.	M.Udhayakumar			
61.	G.Aravind	30.01.2023 to 15.02.2023	Internship	SentiniFlopipes India Pvt Ltd
62.	S.Gobi Krishna	06.03.2023 to 16.03.2023	Inplant Training	Tamil Nadu Cements Corporation Ltd., Alangulam
63.	A.Manikandan	06.02.2023 to 28.02.2023	Internship	Tespro System, Chennai
64.	K.Sudarson			
65.	M.Gopala Krishnan	06.02.2023 to 11.02.2023	Internship	Sri Akilandeshwari Electricals, Rajapalayam

CONFERENCE ATTENDED:

Name of the student	Title of the Project	Institute
ANGURAJ S	Evaluation of Harvesting Energy From Pedestrians using Piezoelectric Sensors	International Conference on Adaptive Technologies for Sustainable Growth(ICATS), Paavai Engineering College, Namakkal,17/03/2023
DHAMOTHARAKANNA N R		
GOPIKANNAN J		
VIGNESH S		

ARAVIND G	Detection of Fire Accident and prevented by Automated Chain Pulling Mechanism	International Conference on Adaptive Technologies for Sustainable Growth(ICATS), Paavai Engineering College, Namakkal,17/03/2023
JEYASIMMAN V		
MAHESH BOOPATHI P		
ARUMUGAKANI R	Fast Charging System of Electric Vehicle(EV) Using LUO Converter	International Conference on Advancement in Automobile Technology(ICAAT), Bannari Amman Institute of Technology, 05/04/2023 and 06/04/2023
MOHAMMED NAZAR M		
SHANMUGA KUMAR E		
ARUN PRASHATH C	Automated Tracking And Water –Cooling System For Solar Panel	International Conference on Adaptive Technologies for Sustainable Growth(ICATS), Paavai Engineering College, Namakkal,17/03/2023
KRISHNAMOORTHY P		
VEERA MANIKANDAN S		
AHAMED ASICK M	Transmission Tower TILT monitoring System using Wireless Techniques	International Conference on Advancement in Automobile Technology(ICAAT), Bannari Amman Institute of Technology, 05/04/2023 and 06/04/2023
KARTHICK T		
MUTHUKUMAR M		
PANDI KUMAR.S		
DHARMARAJ K	Single Phase Voltage source Inverter for Harmonics Mitigation	International Conference on Advancement in Automobile Technology(ICAAT), Bannari Amman Institute of Technology, 05/04/2023 and 06/04/2023
GOVIKUMAR M		
MANISHPRABHU R		
SANGILIPANDI M		
DHINESH J	Low - Cost Autonomous Guided Robot for fire Fighting	International Conference on Adaptive Technologies for Sustainable Growth(ICATS), Paavai Engineering College, Namakkal,17/03/2023
SURIYA A		
DINESH KRISHNAN M		
DHIVAKAR R	Optimal Load Sharing in a Micro grid Integrated with Renewable Energy System	International Conference on Advancement in Automobile Technology(ICAAT), Bannari Amman Institute of Technology, 05/04/2023 and 06/04/2023
TATHIN DHEVESH K		
UDHAYAKUMAR M		
DINESH R	Comparative Analysis of Lithium ion and Lithium Ferro	International Conference on Electrical Energy Systems (ICEES), SSN College of Engineering, 23- 25 March 2023.
LAKSHMANARAJ P		

RAJESH L	phosphate battery pack	
DINESHKUMAR J	Wireless Power Transfer System	International Conference on Adaptive Technologies for Sustainable Growth(ICATS), Paavai Engineering College, Namakkal,17/03/2023
SARAVANAN R		
VIKRAM J		
GANESHKUMAR J		
GOBI KRISHNA S	Generation Of Power Using Horse Herd Optimization Algorithm For Photo Voltaic Solar System	International Conference on Advancement in Automobile Technology(ICAAT), Bannari Amman Institute of Technology, 05/04/2023 and 06/04/2023
MUTHUKUMAR M		
RAMESH S		
JEYAKRISHNA N	Smart wireless power transmission system for Autonomous EV charging	International Conference on Advancement in Automobile Technology(ICAAT), Bannari Amman Institute of Technology, 05/04/2023 and 06/04/2023
NANDHA BALAN A		
RENGARAJ S		
KIRTHICKROSHAN S	System to Identify Drunk Driving and Avoid Auto Accidents	International Conference on Adaptive Technologies for Sustainable Growth(ICATS), Paavai Engineering College, Namakkal,17/03/2023
SARAN KUMAR R		
VINOTH KUMAR M		
MANOJ M	Isolated Bidirectional Micro Inverter with Proportional Resonant Controller for Renewable Energy System	International Conference on Adaptive Technologies for Sustainable Growth(ICATS), Paavai Engineering College, Namakkal,17/03/2023
MOHANRAJ A		
SUDARSON K		
POTHIRAJ K	IoT based borewell water Monitoring and Control system	International Conference on Emerging Engineering Technologies (ICEET), Raji Publications ,11-12 March 2023
RAMKUMAR S		
SAMPATHKUMAR S		
RAJA S	IoT based Voice Control Wheel Chair	International Conference on Adaptive Technologies for Sustainable Growth(ICATS), Paavai Engineering College, Namakkal,17/03/2023
MANORANJITH P		
PALANIVEL S		
RAJESWARAN M	IoT based	International Conference on Smart

RAVIKUMAR K	Physiological Data Monitoring for Construction Worker	Engineering for Renewable Energy Technologies (ICSERET), Ramco Institute of Technology, 24.03.2023 and 25.03.2023
SURYA A		
RUKKUMANI S	Solar Panel Fault Monitoring System Through IOT	International Conference on Smart Engineering for Renewable Energy Technologies (ICSERET), Ramco Institute of Technology, 24.03.2023 and 25.03.2023
USHANANDHINI N		
ARULJEEVA A	Smart Electrical Energy Management System by Hybrid Power Source using IoT	International Conference on Adaptive Technologies for Sustainable Growth(ICATS), Paavai Engineering College, Namakkal,17/03/2023
JOHN SOLAMAN S		
SURENDHAR		
GANGATHARAN P	Smart Energy meter For Power Theft Monitoring System using IOT	International Conference on Adaptive Technologies for Sustainable Growth(ICATS), Paavai Engineering College, Namakkal,17/03/2023
GURUMAHARAJA A		
MANIKANDAN A		
GOPALAKRISHNAN	Design and Analysis of Quadrupler DC - DC High gain boost converter	International Conference on Adaptive Technologies for Sustainable Growth(ICATS), Paavai Engineering College, Namakkal,17/03/2023
S.KARAN KUMAR		
G.SANJEEVI KUMAR		

P.S.R. Engineering College (Autonomous Institution)
Vol, 13 Issue: 2 May 2023

Value Added Courses Organized:

S.No.	Title	Date	No. of students Attended
1.	MATLAB For Engineering Application	14.03.2023 – 18.03.2023	II EEE - 64
2.	Embedded System and IOT	02.02.2023 – 07.02.2023	III EEE – 64
3.	Hands On Training On DAQ Using Graphical Approach-LABVIEW	25.07.2022 To 29.07.2022	IV EEE - 55
4.	Master class on EV Design Using MATLAB	08.02.2023 To 09.03.2023	IV EEE - 33
5.	Master class on Machine Learning	11.01.2023 To 10.02.2023	IV EEE - 37
6.	The fundamental of digital marketing	19.01.2023	IV EEE - 35

KNOW YOUR ALUMNI

Mr. V .V. BREM KUMAR

Alumni: 2015

Department of Electrical and Electronics Engineering

PSR Engineering College,

Sivakasi-626140.



EDUCATION

Course: Bachelor of Engineering in Electrical and Electronics Engineering

College: PSR Engineering College, Sivakasi

Year of Passing: 2016

EXPERINCE SUMMARY

1. 5.1 Years Experience as Senior Test Engineer in Novac Technologies, Chennai.
2. 1.6 Years Experience as Associate in CTS, Chennai.

PLACEMENT DETAILS

S. No.	Name of the student placed	Name of the Employer
1.	VIGNESH S	TCS , Chennai / Pinnacle Infotech, Madurai
2.	RAJA S	CTS / Mithra Soft
3.	MUTHUKUMAR M	Soft Suave
4.	GOPIKANNAN J	VPG Sensors, Chennai
5.	RAMKUMAR S	VPG Sensors, Chennai
6.	ARAVIND G	VPG Sensors, Chennai
7.	SHANMUGA KUMAR E	VPG Sensors, Chennai
8.	GURUMAHARAJA A	VPG Sensors, Chennai / Pinnacle Infotech, Madurai
9.	ANGURAJ S	VPG Sensors, Chennai
10.	KRISHNAMOORTHY P	VPG Sensors, Chennai
11.	GOBI KRISHNA S	VPG Sensors, Chennai / Pinnacle Infotech, Madurai
12.	SAMPATHKUMAR S	Innowell ,Sivakasi
13.	RAMESH S	Innowell ,Sivakasi
14.	USHANANDHINI N	Aspire Systems
15.	RUKKUMANI S	Renault Nissan
16.	SURYA A	Shree Abirami Engineering Works, Chennai
17.	VINOTH KUMAR M	Shree Abirami Engineering Works, Chennai
18.	ARUMUGAKANI A	Shree Abirami Engineering Works, Chennai

P.S.R. Engineering College (Autonomous Institution)
Vol, 13 Issue: 2 May 2023

19.	MANORANJITH P	Shree Abirami Engineering Works, Chennai
20.	SURIYA A	Shree Abirami Engineering Works, Chennai
21.	MAHESH BOOPATHI P	Shree Abirami Engineering Works, Chennai
22.	LAKSHMANARAJ P	Shree Abirami Engineering Works, Chennai
23.	POTHIRAJ K	Shree Abirami Engineering Works, Chennai / Pinnacle Infotech, Madurai
24.	VEERAMANIKANDAN S	Shree Abirami Engineering Works, Chennai
25.	SARAN KUMAR.R	Shree Abirami Engineering Works, Chennai
26.	VIKRAM J	Shree Abirami Engineering Works, Chennai
27.	ARULJEEVA A	Shree Abirami Engineering Works, Chennai / Omega Healthcare Management Services Pvt Ltd, Coimbatore
28.	GOPALA KRISHNAN M	Shree Abirami Engineering Works, Chennai
29.	MANIKANDAN A	Shree Abirami Engineering Works, Chennai
30.	SURENDHAR T	Shree Abirami Engineering Works, Chennai
31.	KIRTHICK ROSHAN S	Shree Abirami Engineering Works, Chennai / Pinnacle Infotech, Madurai
32.	NANDHA BALAN A	Shree Abirami Engineering Works, Chennai
33.	SANGILIPANDI M	Shree Abirami Engineering Works, Chennai
34.	PANDI KUMAR S	Shree Abirami Engineering Works, Chennai
35.	SARAVANAN R	Shree Abirami Engineering Works, Chennai
36.	KARANKUMAR S	Pinnacle Infotech, Madurai

P.S.R. Engineering College (Autonomous Institution)
Vol, 13 Issue: 2 May 2023

37.	JEYAKRISHNA N	Upmost Solution,Chennai
38.	AHAMED ASICK M	Omega Healthcare Management Services Pvt Ltd, Coimbatore

STUDENT ARTICLE

Internet of Things (IoT)

The Internet of Things (IoT) is a broad term for the billions of physical "things" connected to the Internet and sharing information with other devices and systems.

The Internet of Things (IoT) has been around since the 1990s. However, it is still evolving recently in many ways

- Technology based on sensors that are easy to use and don't cost a lot
- The growing number of cloud-based services
- Machine learning and artificial intelligence are two fields where technology is making progress.

From the kitchen to the factory floor, big and small appliances can all be connected to the Internet. In the Internet of Things, each device has a unique identifier (UID) and can talk to each other without needing a person to help.

Types of IoT

Consumer IoT: Primarily for general, everyday use. Electronics, voice assistants, and lamps/lighting are all excellent examples.

Commercial IoT: The medical and transportation industries use it a lot. One example is an intelligent device like a pacemaker or a health tracker.

Military Things (IoMT): The Internet of Military Things (IoMT) is a part of the Internet of Things (IoT) made for military use. Biometric identification systems worn by soldiers and surveillance robots are just two examples.

Industrial Internet of Things (IIoT) : In contrast to the IoT, which is geared toward consumers, the IIoT is made to be used in industrial settings, such as the food and energy industries. For example, digital control systems, smart farming, and big data in the industry.

Infrastructure IoT : The primary purpose of this technology is to make it easier for people in smart cities to talk to each other—for example, systems for managing and keeping an eye on public buildings.

Best Real-World IoT Examples

Here are the best ways to use the Internet of Things in the real world.

IoT Sensors: Sensors for the Internet of Things (IoT) are analog and digital devices that plug into microcontrollers like the Arduino Uno or Raspberry Pi 2. The circuit boards can measure the levels of carbon monoxide, temperature, humidity, pressure, vibration, and motion, which are all part of the data from the sensors. They can predict maintenance, boost productivity, and cut business costs.

Home Security: The Internet of Things is the main reason homes are safe. Because sensors, lights, alarms, and cameras are all connected, security is around the clock (all of which may be managed from a smartphone).

Activity Trackers: Intelligent home security cameras can keep track of your activity. Activity trackers use sensors to monitor your vital signs and provide you with information about them in real-time. Watch your blood pressure, hunger, exercise, and how much oxygen you use.

Industrial Security and Safety: Putting IoT-enabled detection systems, sensors, and cameras in secret places can help find people who intrude on your property. They can also find pressure buildups and small leaks of dangerous materials and fix them.

Process Automation: Repetitive tasks in production, like labeling, wrapping, packing, etc., are hard to do by hand and prone to mistakes, so they are done by machines. Think about a business that makes cold drinks. Devices and conveyors in a factory must be connected to a network to share data and information about how things are going. In other words, this cooperation can't happen without the Internet of Things. Periodically, the manufacturer gets a report on the state of the finished product and the state of the equipment used to make it. Both of these reports could help the manufacturer predict problems. An industry that invests in the Internet of Things will see its productivity increase and the quality of its products stay the same.

Augmented Reality Glasses: Augmented Reality (AR) glasses are computer glasses that add extra information, like 3D animations and movies, to the user's view of the real world. The data is shown on the glasses' lenses and can be used to access online services.

Motion Detection: Motion sensors can monitor significant buildings, bridges, and dams. These instruments can find disturbances in the structures that could lead to disasters. Also, they can be used in areas prone to natural disasters like earthquakes, tsunamis, and landslides.

Wearable Health Monitors: Health monitors that you wear are both exciting and valuable. Wearable technologies like intelligent clothing, wristwear, and medical devices make it possible to provide high-quality medical care. They can keep track of several things for you, like your heart rate, step count, and pulse. This information can be sent to doctors and saved for later use to learn more about a person's health. Wearable electronics made possible by the Internet of Things are changing our daily lives. In case of a medical emergency, like an asthma attack, seizure, etc., they can also send an alarm and call the authorities.

Internet of Things (IoT) is a system of interrelated, internet-connected objects which are able to collect and transfer data over a wireless network without human intervention.

For example, smart fitness bands or watches, driverless cars or drones, smart homes that can be unlocked through smartphones and smart cars, etc.

Architecture of IoT

There are different phases in the architecture of IoT but they can vary according to the situations but generally, there are these four phases in the architecture of IoT.

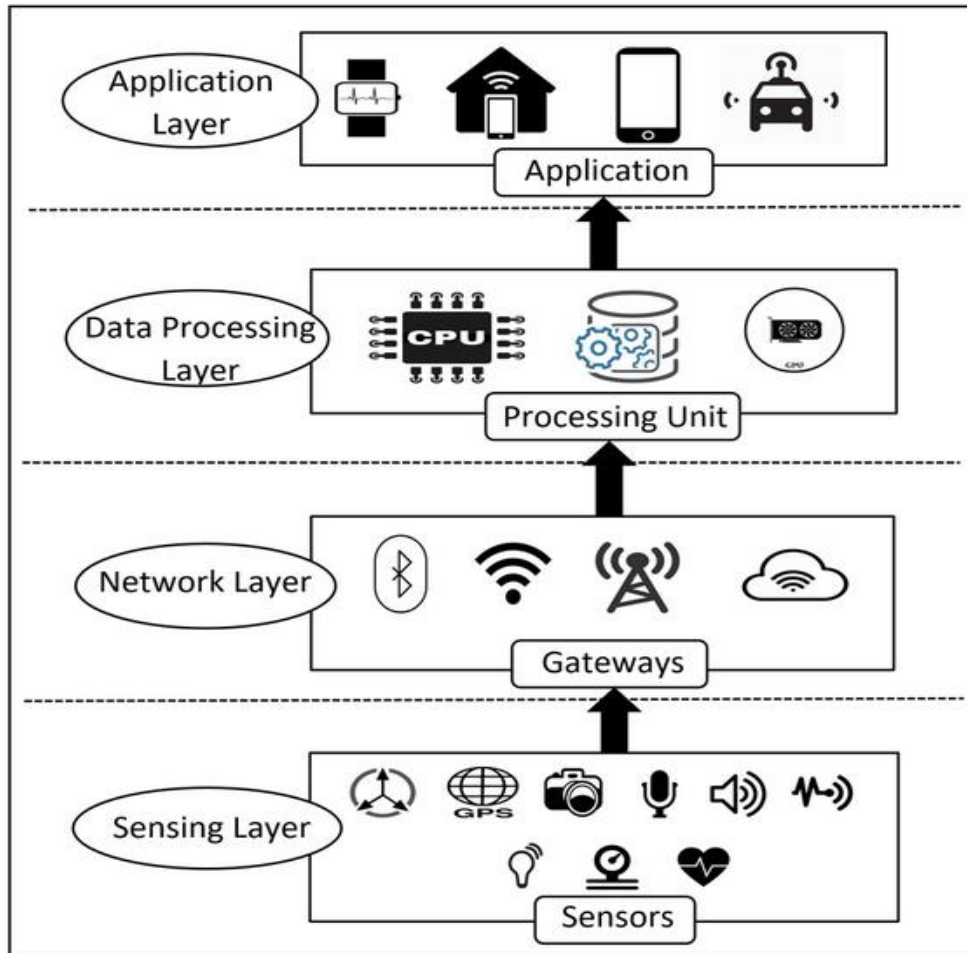
Networked Devices: These are the physical devices which include sensors, actuators, and transducers. These are the actual devices that collect and send the data for processing. They are capable of receiving real-time data and they can convert the physical quantities into electrical signals which can be sent through a network.

Data Aggregation: It is a very important stage as it includes converting the raw data collected by sensors into meaningful data which can be used to take actions. It also includes Data Acquisition Systems and Internet Gateways. It converts the Analog signals provided by sensors into digital signals.

Final Analysis: This is a stage that includes edge IT analytics and the processing of data to make it more efficient and fully capable of execution. It also includes managing and locating all the devices correctly

Cloud Analysis : The final data is received here and analysed closely and precisely in data centres. They process and clean the data to make it free from any kind of errors and missing values. After this stage, data is ready to be sent back and executed to perform operations.

The basic fundamental architecture of IoT which consists of four stages as shown in the diagram given below



- **Sensing Layer:** The first stage of IoT includes sensors, devices, actuators etc. which collect data from the physical environment, processes it and then sends it over the network.
- **Network Layer:** The second stage of the IoT consists of Network Gateways and Data Acquisition Systems. DAS converts the analogue data (collected from Sensors) into Digital Data. It also performs malware detection and data management.
- **Data Processing Layer:** The third stage of IoT is the most important stage. Here, data is pre-processed on its variety and separated accordingly. After this, it is sent to Data Centres. Here Edge IT comes into use.
- **Application Layer:** The fourth stage of IoT consists of Cloud/Data Centres where data is managed and used by applications like agriculture, defence, health care etc.

Advantages

The advantages of IoT are as follows

- **Cost Reduction:** IOT devices catch any problem very fast as compared to traditional troubleshooting. It not only saves time but also saves costs of large repairs.
- **Efficiency and Productivity:** An automated PDF conversion and creation tool will remove the hustle of PDF editing and archiving. Hence, increase in Efficiency and Productivity.
- **Business Opportunities:** IOT provides advanced analytics, smart utility grids which help Small Management Businesses to provide more valuable content and things to their customers.
- **Customer Experience:** Nowadays customer's experience is the most valuable thing in running a business. IoT has drastically increased the customer's experience. An example of customer experience is Home Automation. Since everything is connected, customers need not have to worry about appliances. One can turn off the appliance through mobile.
- **Mobility and Agility:** With the help of IoT, employees can do their work from any geographical location, anytime without any restrictions.

Disadvantages

The disadvantages of IoT are as follows

- **Security:** The data is travelling all over the Internet. So maintaining its privacy is still a Big Challenge. End-to-end Encryption is a must in IoT.
- **Compatibility:** There is no International Standard for the monitoring of the equipment.
- **Complexity:** Most of the devices still contain some software bugs. Each device must be able to seamlessly interact with other devices in the network.
- **Safety:** Suppose a patient is left unattended by a doctor. And some notorious guy changes the prescription or Health monitoring devices malfunctioned. Then it can result in the death of the patient.
- **Policies:** Government authorities must take some steps to make policies and standards related to IoT to stop the Black marketing of IoT devices.

The technologies supported by IoT are as follows

- Big Data Analytics
- Cloud
- Wireless Sensor Networks
- Embedded Systems

By,

RUKKUMANI S

USHANANDHINI N

(FINAL-EEE)

EDITORIAL BOARD

Patron : Thiru.R.Solaisamy, Correspondent
: Er.S.VigneswariArunkumar, Managing Trustee

Co-Patrons : Dr.J.S.Senthil kumaar, Principal
: Dr.P.Marichamy, Dean

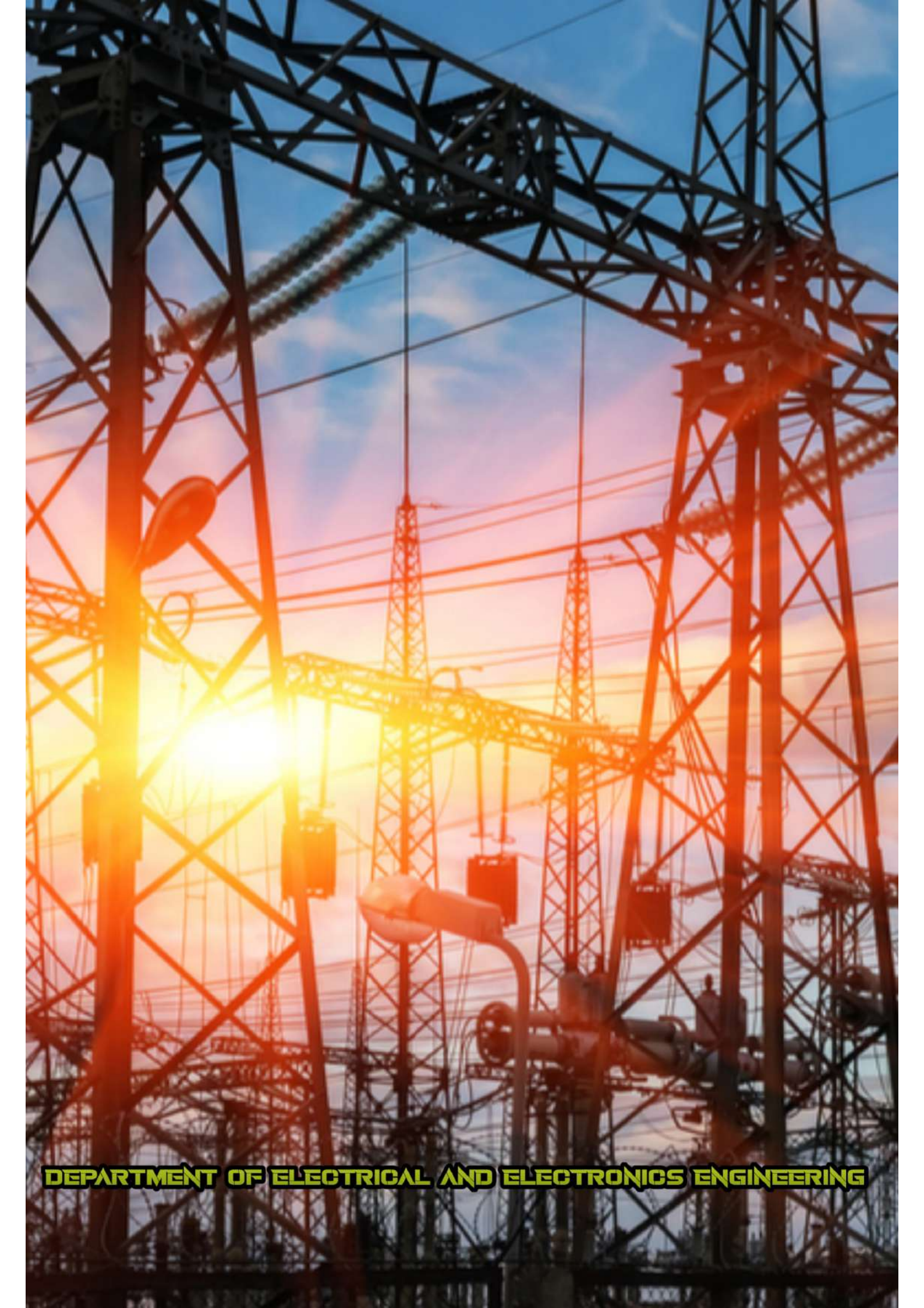
Convener : Dr.R.Madavan, Asso. Professor& Head/EEE

Faculty Advisory Committee : Mrs.S.Vallimayil, Assistant Professor/EEE

Reporters : Mr.V.Jeyasimman (Final-EEE)
: Mr.M.Muthukumar (Final -EEE)
: Mr.R.Karthick (Prefinal – EEE)
: Mr.S.Nambi Arunachalam(Prefinal– EEE)
:Mr.S.Mukeshkanna(II-EEE)
:Mr.M.Murugananth(II-EEE)

Editors: Mr.P.Mahesh Boopathi (IV - EEE)

Mr.S.Guruvel Sarveshwar (Prefinal – EEE)



DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING