



# P.S.R. ENGINEERING COLLEGE



(An Autonomous Institution, Affiliated to Anna University, Chennai)

Accredited by NAAC A<sup>+</sup> Grade, NBA and listed under 12(B) of the UGC Act, 1956

Sivakasi – 626140, Virudhunagar(dt), TamilNadu

# NEWS LETTER

*November 2021  
Volume 12 Issue 1*

**Department of Electrical and Electronics Engineering**

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## **FACULTY ACTIVITIES**

### **FACULTY ACHIEVEMENTS**

Dr.R.Madavan has acted as National advisory committee member in International Conference on the empirical aspects of advancements in science, Engineering and technologies (ICEAASET-2021) organized by Cheran college of Engineering, Karur on 02.07.2021.

### **PATENT PUBLICATION**

Published a patent titled on “**Design and development of low cost, smart high security band to ensure women safety**” on 12th October2021.Application No:202141046446.

Published a patent titled on “**IoT based prediction and early avoidance of flood**” on12th October 2021.Application No:202141046446.

### **JOURNAL PUBLICATIONS**

<b>Name of the Faculty</b>	<b>Title of the paper</b>	<b>Journal Name</b>	<b>ISSN No</b>	<b>Volume, issue, page No</b>	<b>Scopus/ Web of Science</b>
Dr.S.Edwin Jose	An Efficient framework for locating stroke in brain MRI Images using radon transforms and convolutional neural networks	Springer Journal Proceedings	Print ISBN978-981-16-0665-6  Online ISBN978-981-16-0666-3	<a href="https://doi.org/10.1007/978-981-16-0666-3_31">https://doi.org/10.1007/978-981-16-0666-3_31</a>	Scopus
	Fuzzy Algorithm Development For Three Phase Vienna Rectifier In Wind Energy Conversion System Application	International Journal of Grid and Distributed Computing			Web of science

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Dr.K.Punitha	Deep learning based maximum power point prediction for arduino controlled solar water pumping	International journal of computational intelligence systems	Accepted for Publication		Scopus
	Deep learning based forecasting of Covid – 19 in India	Journal of testing and evaluation	0090-3973	DOI: 10.1520/JTE20200574	Scopus
Dr.S.Anbarasi	Smart reader glass for blind and visually impaired people	Advances in parallel computing		DOI:10.3233/APC210303	Scopus
	An optimal tuning of integral controller for hybrid lfc system integrated with wind energy resources	International Journal of Advanced Science and Technology	1212 - 1221.	Issue Vol. 29 No. 7s (2020): Vol 29 No. 7s (Special Issue)	Scopus
Dr.R.Madavan	An advanced spectrum resource and security enhancement in multi domain	Journal of optics	0974-6900	Vol. 50, pages 583–592	ESCI

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	elastic optic networks using optimization algorithm				
	Investigation on heat transfer enhancement in microchannel using Al <sub>2</sub> O <sub>3</sub> water nanofluids	International journal of photoenergy	1687-529X	Vol.2021	Web of Science
	A smart fog computing based real time secure resource allocation and scheduling strategy using multi objective crow search algorithm	Journal of ambient intelligence and humanized computing Springer Journal	1868-5145	<a href="https://doi.org/10.1007/s12652-021-03354-y">https://doi.org/10.1007/s12652-021-03354-y</a>	Web of Science
Dr.R.Aruna	Smart reader glass for blind and visually impaired people	Advances in parallel computing	Accepted for Publication		Scopus
	System identification, stability analysis and PID controller	Lecture notes in Electrical Engineering	Accepted for publication		Springer

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	design for PEM Electrolyzer			
Dr.R.Muniraj	Mitigating unbalance and improving voltage considering higher penetration of EVs and DG using hybrid optimization technique	International Transactions on Electrical Energy Systems.	DOI: <a href="https://doi.org/10.1002/2050-7038.13119">https://doi.org/10.1002/2050-7038.13119</a>	Scopus
	Unified design method of time delayed PI controller for first order plus dead time process model with different dead time constant ratio	Archives of Control Sciences.	pp:447-476 (SCI IF : 1.697) 01/JULY/2021	Scopus
Mrs.S.Krishnaveni	Smart reader glass for blind and visually impaired people	Advances in parallel computing	Accepted for Publication	Scopus

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**CONFERENCE PUBLICATIONS**

Name of the Faculty	Title of the paper	Conference Name	College	Date
Dr.V.Seetharaman	Wireless power transmission using class E power amplifier from solar input	Emerging trends in signals systems and information	Nehru college of engineering and research center	28.05.2021
Dr.R.Aruna	System Identification, Stability Analysis and PID Controller Design for PEM Electrolyzer	XVIII Control Instrumentation System Conference (CISCON-2021),	MIT, Manipal, Karnataka.	26 and 27, November 2021.

**WORKSHOPS/FDPS/FIPS/SEMINARS/ONLINE COURSES**

Name of the Faculty	Name of the workshop/FDP/FIPS/Seminar	Name of the Institute/Industry	Duration
Dr.S.Edwin Jose	Current Trends of Power Electronics Applications in Electric Vehicles	Government Engineering College Valsad.	07.06.2021 - 11.06.2021
	Green Technology And Sustainable Development	Amity University Rajasthan, Jaipur.	14.06.2021 - 18.06.2021
	Soft Computing Techniques and their Applications in Electrical Engineering	National Institute of Technology Patna.	28.06.2021 - 02.07.2021
	Renewable energy and systems	RVS College of Engineering and Technology	28.09.2021 – 30.09.2021
Dr.K.Punitha	Renewable energy and systems	RVS College of Engineering and Technology	28.09.2021 – 30.09.2021
Dr.S.Anbarasi	Autonomous vehicles: past and present	PSG institute of technology	05.06.2021
	AI and IoT – Based technology for precision farming and smart agriculture	KGiSL Institute of technology	07.06.2021 – 11.06.2021

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Dr.R.Madavan	AI and IoT – Based technology for precision farming and smart agriculture	KGiSL Institute of technology	07.06.2021 – 11.06.2021
	Cutting edge technologies in energy storage system for E-Mobility	KPR institute of engineering and technology	14.06.2021 – 18.06.2021
	Microgrid an Opportunity: Electric Vehicles and renewable energy resources	Dayalbagh Educational Institute, Agra	05.07.2021 – 09.07.2021
	Research issues in electric vehicles	Alagappa chettiar government college of engineering and technology	06.12.2021 – 10.12.2021
Dr.V.Seetharaman	Renewable energy and systems	RVS College of Engineering and Technology	28.09.2021 – 30.09.2021
Dr.R.Aruna	Research Perspectives on AI, ML, Data Science & IoT	K L Deemed to be University, Andhra Pradesh	17.05.2021 – 05.06.2021
	Applications of Machine learning and deep learning in electrical engineering Series- II	Kamaraj college of engineering and technology	24.05.2021 – 05.06.2021
	Automation using tinkercad A virtual platform for embedded components simulation	K L Deemed to be University, Andhra Pradesh	25.05.2021
	Advances in solar power generation	K L Deemed to be University, Andhra Pradesh	26.05.2021
	Recent Trends in Embedded Systems	Kavikulguru Institute of Technology & Science,Nagpur	27.05.2021 – 02.06.2021
	Wireless embedded systems and sensor networks	GH Patel college of engineering and technology	01.06.2021 – 05.06.2021
	Autonomous vehicles: past and present	PSG institute of	05.06.2021



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		technology	
	Full stack AI and Deep learning practitioner approach	K L Deemed to be University, Andhra Pradesh	07.06.2021 – 19.06.2021
	Sustainable technologies for electric transportation system	Gokaraju rangaraju institute of Engineering and technology	14.06.2021 – 26.06.2021
	Renewable energy conversion technologies	SRM TRP Engineering college	09.07.2021 – 10.07.2021
	Intellectual property rights	PSR Engineering college	05.08.2021
	Recent Trends and Challenges in Electric Vehicles	Sri Eshwar College of Engineering	20.09.2021 – 24.09.2021
	Renewable energy and systems	SRM TRB Engineering College	28.09.2021 – 30.09.2021
	AI and ML Application to power system	Vellore institute of Technology	22.11.2021 – 26.11.2021
Mrs.S.Krishnaveni	Research Perspectives on AI, ML, Data Science & IoT	K L Deemed to be University, Andhra Pradesh	17.05.2021 – 05.06.2021
	Applications of Machine learning and deep learning in electrical engineering Series- II	Kamaraj college of engineering and technology	24.05.2021 – 05.06.2021
	Autonomous vehicles: past and present	PSG institute of technology	05.06.2021
	Emerging technological challenges in electric vehicles	Annapoorna Engineering college	07.06.2021 – 11.06.2021
	Cutting edge technologies in energy storage system for E-Mobility	KPR institute of technology	14.06.2021 – 18.06.2021
	Distributed energy system modelling and control	Government	21.06.2021 –

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		Engineering College, Bharuch.	25.06.2021
	Research innovations and emerging advances in electrical engineering	Eshwari engineering college.	14.06.2021 – 19.06.2021
	Renewable energy conversion technologies	SRM TRP Engineering college	09.07.2021 – 10.07.2021
	Intellectual property rights	PSR Engineering college	05.08.2021
	Recent Trends and Challenges in Electric Vehicles	Sri Eshwar College of Engineering	20.09.2021 – 24.09.2021
Mr.S.Ramaraj	Recent Trends in Embedded Systems	Kavikulguru Institute of Technology & Science,Nagpur	27.05.2021 – 02.06.2021
	Renewable energy and systems	RVS College of Engineering and Technology	28.09.2021 – 30.09.2021
Mr.P.Sarath Chandran	Applications of Machine learning and deep learning in electrical engineering Series- II	Kamaraj college of engineering and technology	24.05.2021 – 05.06.2021
	Renewable energy and systems	RVS College of Engineering and Technology	28.09.2021 – 30.09.2021
Mr.M.Sivaraman	Applications of Machine learning and deep learning in electrical engineering Series- II	Kamaraj college of engineering and technology	24.05.2021 – 05.06.2021
	Recent developments in sustainable processes	Indian institute of carpet technology	31.05.2021 – 04.06.2021
	State of the art applications and research areas in high voltage engineering	National institute of technology Calicut	05.07.2021 – 09.07.2021

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	Renewable energy and systems	RVS College of Engineering and Technology	28.09.2021 – 30.09.2021
Ms.R.Nikkitha	Tele Medicine and Digital Healthcare: Opportunities & Threats	Rabindranath Tagore University, MP.	17.05.2021 – 21.05.2021
	Applications of Machine learning and deep learning in electrical engineering Series- II	Kamaraj college of Engineering and Technology	24.05.2021 – 05.06.2021
	Recent Trends in Embedded Systems	Kavikulguru Institute of Technology & Science, Nagpur	27.05.2021 – 02.06.2021
	Fundamentals in Environmental Engineering	A.V.C. College of Engineering	05.06.2021
	Electric vehicle trends and opportunities	Sathyabama institute of science and technology	12.06.2021
	Renewable energy conversion technologies	SRM TRP Engineering college	09.07.2021 – 10.07.2021
	Virtual and Augmented reality for robots	Vimal Jyothi engineering college	12.07.2021 – 16.07.2021
	Intellectual property rights	PSR Engineering college	05.08.2021
	Waste technology	National Power Training Institute, Shivpuri	02.08.2021 – 06.08.2021
	Recent Trends and Challenges in Electric Vehicles	Sri Eshwar College of Engineering	20.09.2021 – 24.09.2021
	Renewable energy and systems	RVS College of Engineering and Technology	28.09.2021 – 30.09.2021
Mrs.N.G.Dharaniya	Renewable energy conversion technologies	SRM TRP Engineering	09.07.2021 –

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		college	10.07.2021
	Virtual and Augmented reality for robots	Vimal Jyothi engineering college	12.07.2021 – 16.07.2021
	Intellectual property rights	PSR Engineering college	05.08.2021
	Recent Trends and Challenges in Electric Vehicles	Sri Eshwar College of Engineering	20.09.2021 – 24.09.2021
	Renewable energy and systems	RVS College of Engineering and Technology	28.09.2021 – 30.09.2021
Mrs.M.Kanimozhi	Renewable energy conversion technologies	SRM TRP Engineering college	09.07.2021 – 10.07.2021
	Virtual and Augmented reality for robots	Vimal Jyothi engineering college	12.07.2021 – 16.07.2021
	Challenges and opportunities for electric vehicle adoption	Erode sengunthar engineering college	19.07.2021 – 23.07.2021
	Intellectual property rights	PSR Engineering college	05.08.2021
	Recent Trends and Challenges in Electric Vehicles	Sri Eshwar College of Engineering	20.09.2021 – 24.09.2021
	Renewable energy and systems	RVS College of Engineering and Technology	28.09.2021 – 30.09.2021

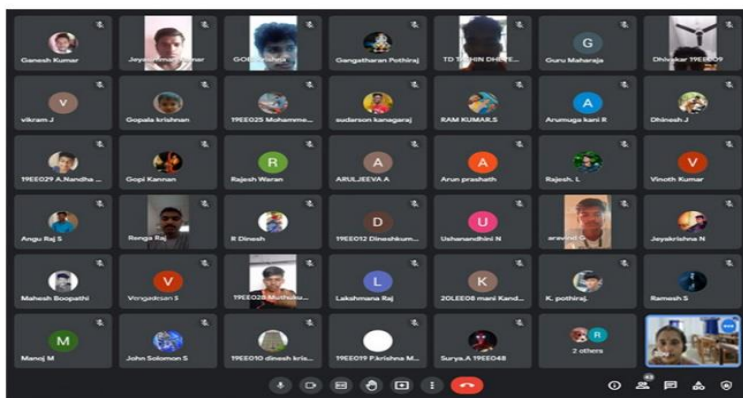
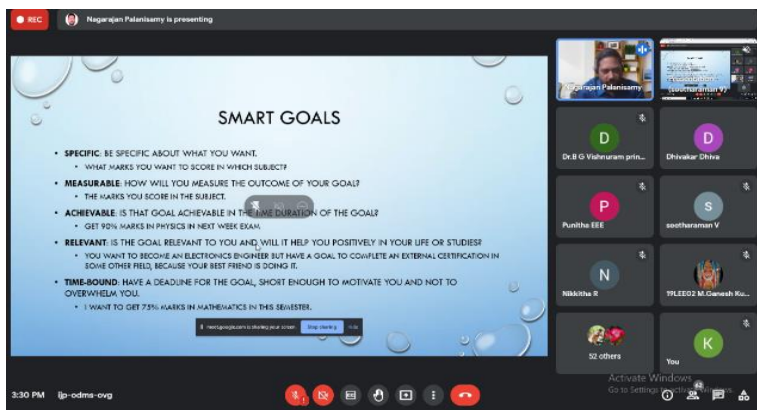
**COURSERA COURSES**

<b>Name of the faculty</b>	<b>Title of the course</b>	<b>Duration of course in weeks</b>
Mrs.S.Krishnaveni	Creative thinking: Techniques and tools for success	7
	Science of Exercise	3
	The science of success: what researchers know that you should know	5
Ms.R.Nikkitha	Science of Exercise	3
	SARS-CoV-2 and acute respiratory viral infections	5

## DEPARTMENT ACTIVITIES

### ONLINE WEBINAR

The Department of Electrical and Electronics Engineering of PSR Engineering College, Sivakasi has organized One-day (14.07.2021) online webinar on the title “**Recent Trends in Green Energy Systems**” for students and faculties of Electrical and Electronics Engineering. Dr.S.Vengadesan AP, ACCET Karaikudi was invited as a resource person. Dr. S. Edwin Jose HoD/EEE invited all the faculties and introduced the chief guest. The chief Guest Dr.S.Vengadesan explained the basics of green energy and how it is generated from natural resources, such as sunlight, wind or water. He elaborately discusses about some differences between renewable and green energy, the key with these energy resources are that they don’t harm the environment through factors such as releasing greenhouse gases into the atmosphere. Finally, he discusses about the creating energy with a zero carbon footprint is a great stride to a more environmentally friendly future. This program was successfully coordinated by Dr. S. Edwin Jose, HoD/EEE and Mrs.R.Arana, Assistant Professor/EEE for creating the awareness among the faculties regarding the Green Energy Systems.





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Sivakasi – 626140, Virudhunagar(Dt.),Tamil Nadu.



### **DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING**

Cordially invite you for the



**SEMINAR**  
on

### **Recent Trends in Green Energy Systems**

On 14<sup>th</sup> July 2021

Google Meet Link: <https://meet.google.com/rwn-fwxu-eeb>

**Dr.S.Vengadesan,**

AP / ACCET,  
Karaikudi

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. B.G.VISHNURAM**

Principal,  
P.S.R. Engineering College

**Dr. P.MARICHAMY**

Dean  
P.S.R. Engineering College

**Dr. S.EDWIN JOSE**

Head/EEE  
P.S.R. Engineering College

**Mrs. R.ARUNA**

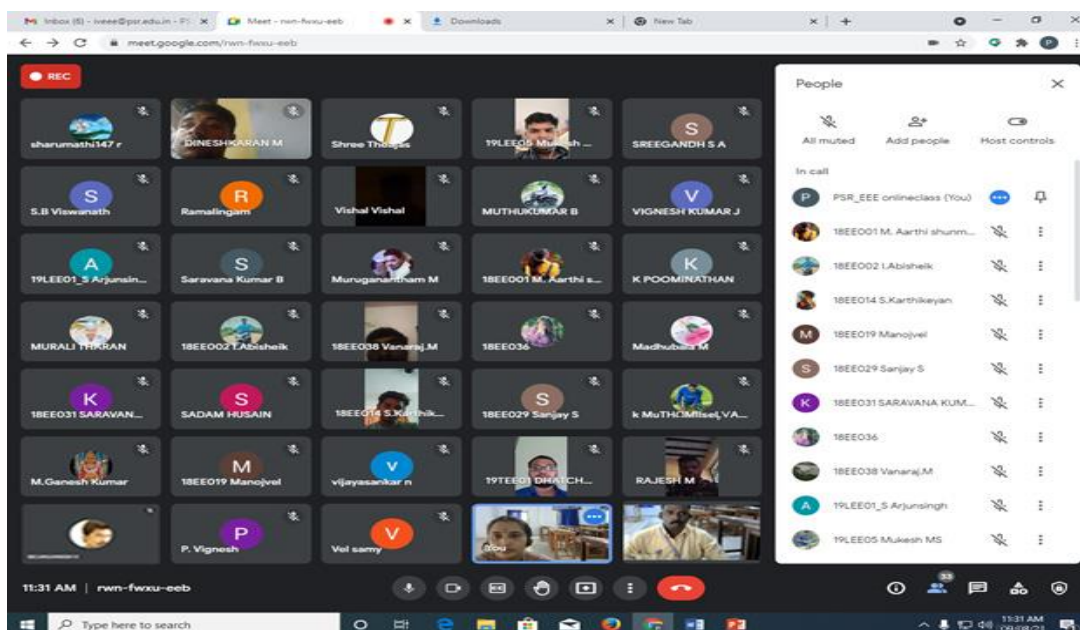
Co-ordinator /EEE Department  
P.S.R. Engineering College

## VALUE ADDED COURSE

The Department of Electrical and Electronics Engineering, P.S.R.Engineering College, Sivakasi has organized Five days Online Course on titled “**Hydrogen based E-Vehicle**” from **09.08.2021 to 13.08.2021**. The final year 53 students were participated in this programme. Er.V.Selva Ganesh, Project Manager, Shubham Consultant Pvt Ltd., Madurai acted as a resource person and addressed the participants.

The five days online course covers the arena of Hydrogen based E-Vehicle. On first day, the stage by stage development of E-Vehicle and its types are presented. Types of Storage Systems, unique Properties of Hydrogen and the concept of Hydrogen storage system were covered on second day. The resource person discussed about the hydrogen based E-Vehicle (Fuel cell). The components and working of fuel cell E-Vehicle are elaborately covered on the course. The alternate power comparisons in E-Vehicle are also explained on the third and fourth day of the course.

On the fifth day, the safety aspects and challenges of Hydrogen Fuel Cell Vehicle are clarified with some incident and guidelines for the usage of the Vehicles are also mentioned in the course. The entire course given by him was really interesting and motivate the students learn about more on this arena.







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Sivakasi – 626140



DEPARTMENT of ELECTRICAL AND ELECTRONICS ENGINEERING



*Cordially invite you for the*

ONLINE COURSE

*on*

*Hydrogen based E-Vehicle*

On 9<sup>th</sup> to 13<sup>th</sup> August 2021

Google Meet Link: <https://meet.google.com/rwn-fwxu-eeb>

**Er.V.Selva Ganesh**

Project Manager

Shubham Consultant 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. B.G.Vishnuram**

Principal, P.S.R. Engineering College

**Dr. S. EDWIN JOSE**

Head/EEE

**Dr. P. MARICHAMY**

Dean, P.S.R. Engineering College

**Dr. R. ARUNA**

**Ms.R.NIKKITHA**

Co-ordinator/EEE Department

*All Are Welcome...*





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### **DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING**



Cordially invite you for the

**ONLINE TRAINING**

on

### **Safety Precautions & Measurements**

On 11<sup>th</sup> to 12<sup>th</sup> August 2021

Google Meet Link: <https://meet.google.com/rwn-fwxu-eeb>

### **Er.S.Chandrasekaran,**

AEE , TNEB,  
Ramanathapuram

**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**

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#### **Dr. S.EDWIN JOSE**

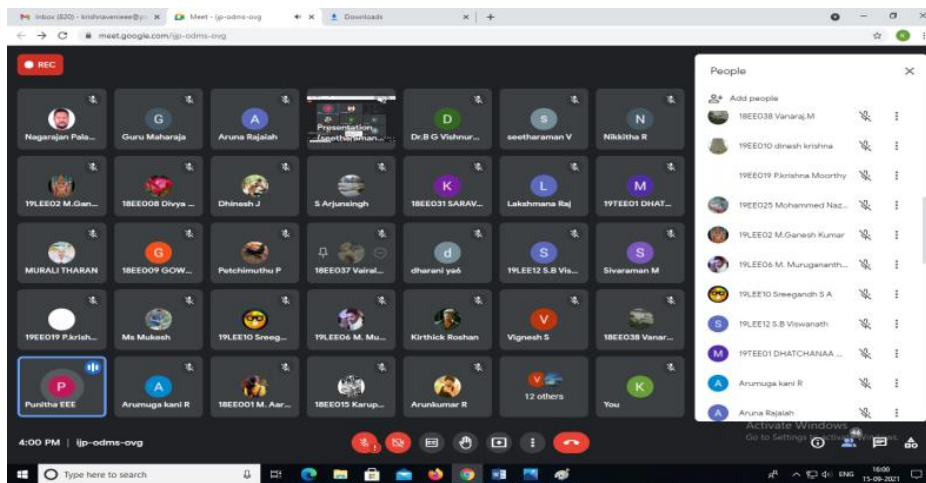
Head/EEE  
P.S.R. Engineering College

#### **Dr. V.SEETHARAMAN**

Co-ordinator /EEE Department  
P.S.R. Engineering College

## ONLINE WORKSHOP

The Department of Electrical and Electronics Engineering of PSR Engineering College, Sivakasi has organized one Day Workshop (27.08.2021) on the title **“IOT Based on E-Vehicle”** for faculties of Electrical and Electronics Engineering. Er.V.Selvaganesh Project Manager, Subam Consultancy, CBE, Madurai was invited as a resource person. Dr. S. Edwin Jose HoD/EEE invited all the staff members and introduced the chief guest. The chief guest share about his Experience in the field of IOT based E-Vehicle. He explained the application of Internet of Things (IOT) has been emerging as a new platform in wireless technologies primarily in the field of designing electric vehicles. To overcome all issues in existing vehicles and for protecting the environment, electric vehicles should be introduced by integrating an intellectual device called sensor all over the body of electric vehicle with less cost. This program was successfully coordinated by Dr. S. Edwin Jose, HOD/EEE and Mr.T.Balasubramanian, Associate Professor/EEE for creating the awareness among the faculties regarding the E-Vehicle.





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Sivakasi – 626140, Virudhunagar(Dt.), Tamil Nadu.



### **DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING**

Cordially invite you for the

One day Workshop

on



### **IoT based on E - Vehicle**

On 27<sup>th</sup> to August 2021

Google Meet Link: <https://meet.google.com/rwn-fwxu-eeb>

### **Er. V. Selvaganesh,**

Project Manager

Subam Consultancy, CBE

Madurai

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

In the august presence of

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Managing Trustee. P.S.R Group of Institutions

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Dean

P.S.R. Engineering College

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Head/EEE

P.S.R. Engineering College

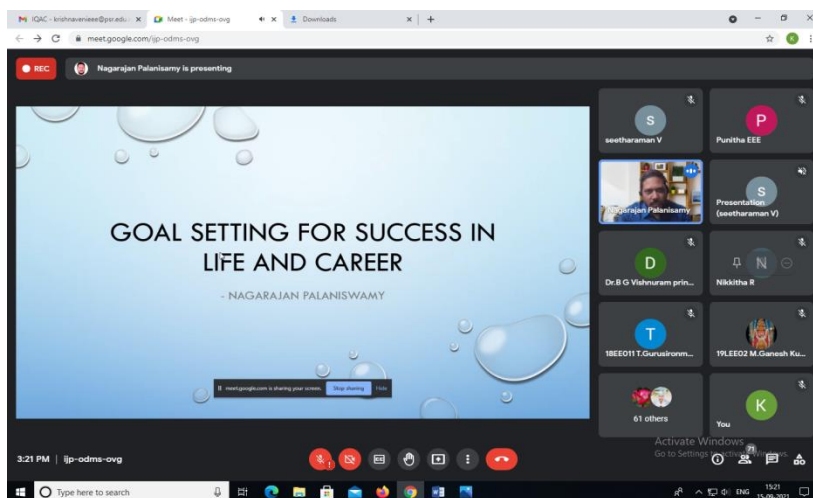
**Mr. T.BALASUBRAMANIAN**

Co-ordinator /EEE Department

P.S.R. Engineering College

## **GUEST LECTURE**

The Department of Electrical and Electronics Engineering of PSR Engineering College, Sivakasi has organized a guest lecture (15.09.2021) on the topic of **“Goal setting for Success in Career and Life”** for UG and PG students, teaching and non-teaching staff of Electrical and Electronics Engineering department. **Er. Nagarajan Palaniswamy BE MBA**, Delivery Manager, Consleague Consulting Ltd., was invited as a resource person. In his welcome address, Dr. S. Edwin Jose, HoD/EEE, invited all students, teaching and non-teaching staff. Dr. V. Seetharaman, Associate Professor/EEE, introduces the chief guest. His experience and tips on how to succeed will benefit those at every stage of their careers and lives. Regarding their queries, he interacted with all students. The vote of Thanks is offered by Dr. K. Punitha, professor/EEE. Dr. K. Punitha, Professor/EEE, and Dr. V. Seetharaman, Associate Professor/EEE, successfully coordinated this program to set goals for students for success in career and life.



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**DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING**

Cordially invite you for



**Engineer's Day - 2021**

And Guest Lecture on

*Goal Setting for Success in Career and Life*

On 15<sup>th</sup> Sep 2021 (Time 2.30 pm)

Venue: EEE seminar Hall (Online mode)

Chief Guest

**Er. Nagarajan Palaniswamy BE., MBA.,**  
Delivery Manager,  
Consleague Consulting Ltd.,  
Coimbatore.

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

Convener

**Dr. B.G.VISHNURAM**  
Principal,  
P.S.R. Engineering College

**Dr. S.EDWIN JOSE**  
Head/EEE  
P.S.R. Engineering College

Co- Ordinators

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

**Dr. K.PUNITHA, Prof/EEE**  
**Dr. V.SEETHARAMAN, ASP/EEE**

## **GUEST LECTURE**

Department of Civil Engineering & Electrical and Electronics Engineering, P.S.R. Engineering College, Sivakasi have organized a Guest lecture on titled “**WORLD OZONE DAY**” on 16.09.2021. 110 students and 20 faculties were participated in this programme. The resource person, Dr.S.Manikandan, Professor & Head of Department of Bio-Medical Engineering, P.S.R.Engineering College, Sivakasi, addressed the participants.

He mainly covers the area of

- What is ozone?
- Why do we care about atmospheric ozone?
- What are the harmful effects of ozone layer depletion?

With a story, he explained the various factors affecting the ozone layer on our day to day life style. And finally concluded the session by giving some of the ideas and tips to be followed to prevent our earth from global warming. The entire address given by him was really thought-provoking. The Ozone layer protects the planet from Ultraviolet (UV) rays of the sun. Ozone is made up of three atoms of oxygen. It is highly reactive gas and is represented by O<sub>3</sub>. It occurs naturally as well as a man-made product in the Earth's upper atmosphere i.e. stratosphere and lower atmosphere i.e. troposphere. The Ozone layer is present in Earth's atmosphere (15-35km above Earth) in the lower portion of the stratosphere and has relatively high concentrations of ozone (O<sub>3</sub>). Naturally, it is formed through the interactions of solar UV radiation with molecular oxygen O<sub>2</sub>. It reduces the harmful UV radiation reaching the Earth's surface.



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Recognized Under 12 (B) of the UGC Act, 1956 & ISO 9001:2015  
Sivakasi-626 140, Virudhunagar Dt., Tamil Nadu



**DEPARTMENT OF CIVIL & EEE**

*Cordially Invites You For*

**WORLD OZONE DAY**

**On September 16, 2021 TIME: 02.00PM**

**IN THE PRESENCE OF**

*Chief Guest*

**Dr. S. MANIKANDAN**

Professor & Head of the Department,  
Department of Bio-Medical Engineering,  
P.S.R. Engineering College

**Thiru. R. Solaisamy**

Managing Trustee and Correspondent,  
P.S.R. Group of Institutions

**&**

**Er.S. Vigneswari Arunkumar**

Trustee and Director,  
P.S.R. Group of Institutions,  
Will Preside Over the Function

**Dr.B.G. Vishnuram**

Principal, P.S.R.Engineering College,  
Will Deliver the Inaugural Address

**Dr.P. Marichamy**

Dean, P.S.R.Engineering College,  
Will Felicitate the Function

Convenors

**Dr. M. SHAHUL HAMEED**  
Dean Research & HOD/CIVIL

**Dr. S. EDWIN JOSE**  
HOD/ EEE

Co-Ordinators

**Dr.R.ARUNA., ASP/EEE.**

**Mr.S.KARTHIK RAGUNATH., ASP/Civil.**

**Mr.N.RADHAKRISHNAN., AP/Civil.**

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**STUDENT ACTIVITIES**

**WORKSHOPS ATTENDED:**

<b>Name of the student</b>	<b>Date of the event</b>	<b>Title of the event</b>	<b>Institute</b>
S.Rukkumani	10.06. 2021	Meeting the New Challenges in Advanced Digital Signal Processing & Applications	Sri Indu Institute of Engineering & Technology
S.Rukkumani	12.06.2021	Adaptive Spectral Estimation of Stationary Events in Time Series using Kalman Filter	Hindusthan Institute of Technology
S.Rukkumani	18.06.2021	Robotics and Medical Automation	Bharath Institute of Higher Education and Research
S.Rukkumani	20.06.2021	Designing of MAC protocols for wireless communication	Hindusthan institute of Technology
G.Aravind	21.06.2021	International Day of Yoga	P.S.R. Engineering College, Sivakasi
S.Rukkumani	26.06.2021	IoT in Telamedicine	Hindusthan Institute of Technology
S.Rukkumani	26.06.2021	IOT in Telemedicine	Hindusthan institute of Technology
N.Ushanandhini	21 .07. 2021	Annual Global Event	Foreign admits
K.Rajkumar	31.08.2021	Fit Freedom Run	Fit India Freedom Run
K.Pothiraj	15.09.2021	Goal setting for success in career and life	P.S.R. Engineering College, Sivakasi
J.Vikaram	15.09.2021	Goal setting for success in career and life	P.S.R. Engineering College, Sivakasi
P.Gangatharan	15.09.2021	Goal setting for success in career and life	P.S.R. Engineering College, Sivakasi
K.Sudarson	15.09. 2021	Goal setting for success in career and life	P.S.R. Engineering College, Sivakasi
S. Vignesh	15.09.2021	Goal setting for success in career and life	P.S.R. Engineering College, Sivakasi

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Tathin Dhevish.K P.Krishnamoorthy M.Vinothkumar J.Dinesh A.Surya Sarankumar.R S.Kiruthickroshan P.Gangatharan T.Surrenthar	10.10.2021 to 15.11.2021	Personality & Character Development Course	P.S.R. Engineering College, Sivakasi
R.Dhivakar	20.10.2021	Future Electric grid with Renewable Penetration	SRM TRP Engineering college
G.Vengadesh	20.10.2021	Future Electric Grid with Renewable Penetration	SRM TRP Engineering College, Trichy.
V. Surya	20.10.2021	Future Electric Grid with Renewable Penetration	SRM TRP Engineering College, Trichy.
S.Vidhya	20.10.2021	Future Electric Grid with Renewable Penetration	SRM TRP Engineering College, Trichy.
SAKTHIVEL S	20.10.2021	International Workshop On "Future Electric grid with Renewable Penetration"	SRM TRP Engineering College, Trichy
SUBASH M	20.10.2021	International Workshop On "Future Electric grid with Renewable Penetration"	SRM TRP Engineering College, Trichy
S.Vidhya	20.10.2021	International Workshop On "Future Electric grid with Renewable Penetration"	SRM TRP Engineering College, Trichy
V.Rishikesh	20.10.2021	International Workshop On "Future Electric grid with Renewable Penetration"	SRM TRP Engineering College, Trichy
G.Guruvel Sarveshwar	20.10.2021	Future Electric Grid with Renewable Penetration	SRM TRP Engineering College, Trichy.

**SYMPOSIUM ATTENDED:**

<b>Name of the student</b>	<b>Date of the event</b>	<b>Title</b>	<b>Institute</b>
J.Vikram	21.06.2021	International Day of Yoga E-Quiz	P.S.R. Engineering College, Sivakasi
G.Aravind	21.06.2021	International Day of Yoga E-Quiz	P.S.R. Engineering College, Sivakasi
K.Sudarson	19.11.2021	THE QUIZARD	P.S.R. Engineering College, Sivakasi
M.Muthukumar	19.11.2021	THE QUIZARD	P.S.R. Engineering College, Sivakasi

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S.Anguraj	19.11.2021	THE QUIZARD	P.S.R. Engineering College, Sivakasi
SIKKANTHAR MYDEEN. R	19.11.2021	TH QUIZARD	P.S.R.Engineering College, Sivakasi
S.Abdul Azeez	27.11.2021	Technical Quiz	P.S.R.Engineering College, Sivakasi
M.Mahendren	27.11.2021	Technical Quiz	P.S.R Engineering College,
V.Rishikesh	27.11.2021	Technical Quiz	P.S.R Engineering College,

**ONLINE COURSES (NPTEL / COURSERA):**

**COURSERA COURSES:**

<b>Name of the student</b>	<b>Title of the course</b>
S.Ayyappan	1. Renewable Energy And Green Building Entrepreneurship
G. Karthikeyan	1. Electric Power Systems 2. Renewable Energy And Green Building Entrepreneurship
M.Sankaramahalingam	1. AI for Everyone 2. Safety in The Utility Industry 3. Energy The Enterprise 4. Wind Energy 5. Natural Gas 6. Electric Power System
R.Satheshkumar	1. Electric Power System 2. Renewable Energy And Green Building Entrepreneurship
G.Dhivya	1. Electric Power System
P.Rajesh Kumar	1. Electric Power System 2. Write A Feature Length Screenplay Film Or Television
S.EsakkiSankar	1. Electric Power System
V.DivyaMariya	1. Natural Gas 2. Version Control withGit 3. Electric Vehicles And Mobility
M.Maheswaran	1. Introduction to The Internet of Things and Embedded Systems 2. Natural Gas 3. Wind Energy 4. Safety in The Utility Industry

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	<ol style="list-style-type: none"> <li>5. Renewable Energy and Green Building Entrepreneurship</li> <li>6. Electric Power Systems</li> </ol>
R.Saravanakumar	<ol style="list-style-type: none"> <li>1. Electric Power System</li> <li>2. Natural Gas</li> <li>3. Safety Utility In The Industry</li> </ol>
S.Gowtham	<ol style="list-style-type: none"> <li>1. Covid-19: What You Need to Know (Cme Eligible)</li> <li>2. Electric Power Systems</li> <li>3. Natural Gas</li> <li>4. Smart Device &amp; Mobile Emerging Technologies</li> <li>5. Wireless Communications for Everybody</li> <li>6. Wind Energy</li> <li>7. Introduction To Project Management</li> </ol>
B.Saravanakumar	<ol style="list-style-type: none"> <li>1. Electric Power System</li> <li>2. Natural Gas</li> <li>3. Safety Utility in The Industry</li> <li>4. Programming for Everybody (Getting Started with Python)</li> <li>5. Introduction Of Cyber security</li> </ol>
K.Poominathan	<ol style="list-style-type: none"> <li>1. Electric Power System</li> </ol>
V.Saravanabhavan	<ol style="list-style-type: none"> <li>1. Electric Power System</li> <li>2. Natural Gas</li> <li>3. Safety Utility In The Industry</li> </ol>
B.Manojvel	<ol style="list-style-type: none"> <li>1. Electric Power System</li> <li>2. Safety Utility In The Industry</li> </ol>

**INTERNSHIPS:**

<b>Name of the student</b>	<b>Date of the event</b>	<b>Institute</b>
M.Rajesh	05.09.2021 to 20.09.2021	Graphics Designing, GK Group of Company
S. Arjun Singh	27.09.2021 to 01.10.2021	Rajapalayam Mills Limited
M. Ganeshkumar	27.09.2021 to 01.10.2021	POLYSPIN EXPORTS LIMITED
J.Vigneshkumar	27.09.2021 to 01.10.2021	POLYSPIN EXPORTS LIMITED
C.Sankar Dhinesh	27.09.2021 to 01.10.2021	Rajapalayam Mills Limited
S.Karthikeyan	27.09.2021 to 01.10.2021	Rajapalayam Mills Limited

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**INPLANT TRAINING:**

<b>Name of the Student</b>	<b>Date of the Event</b>	<b>Place</b>
S.Arjun Singh	05.07.2021 to 09.07.2021	110/11 KV Substation, Rajapalayam of Virudhunagar Electricity Distribution Circle.
S.Arunkumar	05.07.2021 to 09.07.2021	110/11 KV Substation, Rajapalayam of Virudhunagar Electricity Distribution Circle.
J.Akash	05.07.2021 to 09.07.2021	110/11 KV Substation, Rajapalayam of Virudhunagar Electricity Distribution Circle.
S.Karthikeyan	05.07.2021 to 09.07.2021	110/11 KV Substation, Rajapalayam of Virudhunagar Electricity Distribution Circle.
C.Sankar Dhinesh	05.07.2021 to 09.07.2021	110/11 KV Substation, Rajapalayam of Virudhunagar Electricity Distribution Circle.
N.Ushanandhini	10.09.2021 to 18.09.2021	Power excel at Ludifu

**KNOW YOUR ALUMNI**

**Mr.G.KARTHIK JEEVA**

Alumni: 2005

Department of Electrical and Electronics Engineering.

PSR Engineering College,

Sivakasi.



**EDUCATION**

Course: Bachelor of engineering in Electrical Engineering.

College: P.S.R. Engineering College.

University: Anna University, Chennai.

Year of passing: 2005

**EXPERIENCE SUMMARY**

Working as Junior Telecom Officer at BSNL from 2008 to till date.



## **STUDENT ARTICLE**

### **AUTOMATION IN DISTRIBUTION SYSTEMS**

Nowadays, it seems that everything we do tend to be somehow automated. The very same is happening in electrical distribution systems. The distribution system at the medium voltage (MV) or low voltage (LV) levels is designed using different structures such as radial, double radial, open ring, and closed ring. Accordingly, the system switching in case of emergency operating conditions is either manual or automatic, depending on the permitted duration of interruption periods and obviously the nature of loads. The distribution systems feeding the industrial and commercial loads must be automated in most cases.

Distribution system automation helps to raise the reliability level by decreasing the interruption duration, isolating the faulty parts, keeping the system equipment functioning, and automating the required switching processes during system operation. This technical article explains the basics of automation applied to electrical distribution systems using PLCs, SCADA, IEDs, and RTUs.

#### **1. Distribution system automation:**

It depends on the size of the network, the nature and amount of load, and the type of system equipment. When the distribution system grows and becomes more complicated, is the automation sufficient to achieve optimal performance and to operate satisfactorily and securely? This is the question to be answered by the following discussion. It is required to install standby generators as a backup to the utility supply to avoid the uncertainty in utility power reliability and damage in the event of power failure. In this situation, an interlock between the generators' switches (circuit breakers) and the utility feeder CB is needed to avoid paralleling between them. In addition, it is necessary to install transfer switches on each floor to allow the standby-generated power to flow into each apartment directly without passing through the utility meters (Figure 1).

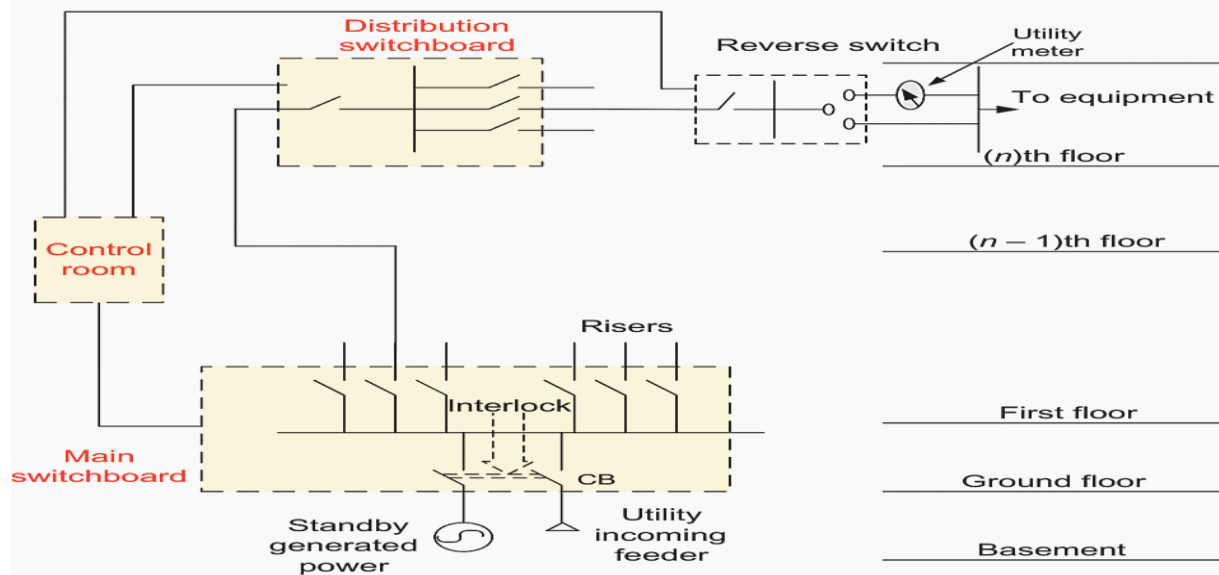


Fig. 1

**As a result of these requirements, a lot of equipment needs to be distributed throughout the building:**

1. An interlocking panel for each generator located in the control room near the main switchboard (utility switches),
2. Transfer-switches panel located at the DP of each floor, and
3. The interconnection between the equipment and the control room.

It is clear that the space required for the control room will be large, and the number of wires needed between panels and remote points is also increased.

## 2. SCADA System

SCADA system stands for supervisory control and data acquisition system. It refers to the combination of telemetry and data acquisition. It commences with measurement of the data by specific devices in the field of application and collected via intelligent electronic devices (IEDs), then transferring these data to a master station to implement the necessary processing and control algorithms. The results of processing are displayed on a number of operator monitoring screens, while the control actions are conveyed back to the field of application in real-time. See Figure 4 below.

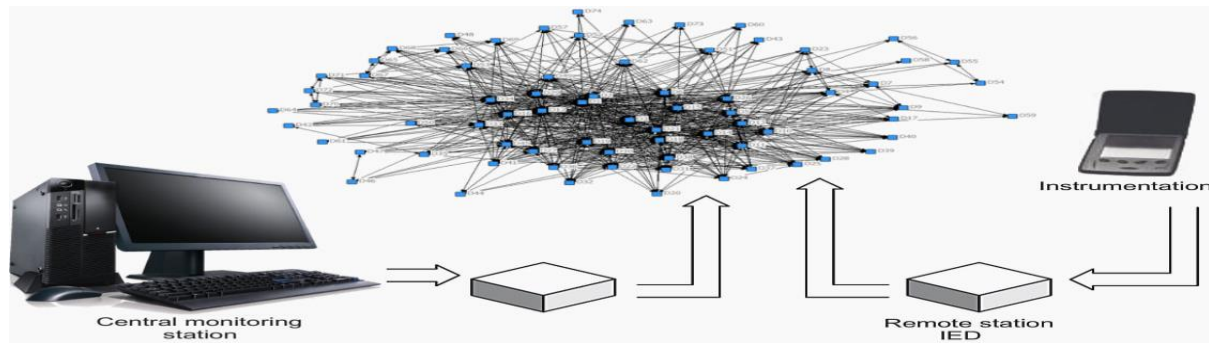


Fig. 2

## 2.1 Telemetry

Telemetry is the initial step in applying SCADA by defining the technique used for measuring the data (voltage, current, speed, etc.) from different locations in the real-time process and transferring it to the IEDs such as remote terminal units (RTUs) or PLCs in another location through a communication circuit.

## 2.2 Data Acquisition

Data acquisition refers to the method used for accessing and collecting the data from the devices being controlled and monitored, and to be forwarded to a telemetry system ready for transfer to the various sites. The data may be analog or digital gathered by sensors such as ammeters, voltmeters, speedometer, and flowmeter. It can also be data to control equipment such as actuators, relays, valves, and electric motors.

## 3. SCADA Components

The SCADA system consists of four components as follows.

### 3.1 Instrumentation (Sensors)

This component refers to the devices used for monitoring certain parameters such as sensors and the devices used for controlling certain modules such as actuators. Their main function is to convert the parameters from the physical form to electrical form as continuous (analog) or discrete (digital) signals readable by the remote station equipment (RTUs or PLCs).



Fig. 4

### 3.2 Remote Stations (RTU/PLC)

The measuring devices (first component) connected to the plant being monitored and controlled are interfaced to the remote station. Functions of remote stations are

1. Gathering data from the different devices in the plant being monitored and controlled;
2. Holding the data gathered in its memory and waiting for a request from the master station (master terminal unit [MTU]) to transmit the data; and
3. Receiving data and control signals from MTU and transmitting the control signals to the plant devices.

The remote station is either RTU or PLC. The RTU is used effectively in the event of difficult communications. Its inputs and outputs are shown in Figure 6.

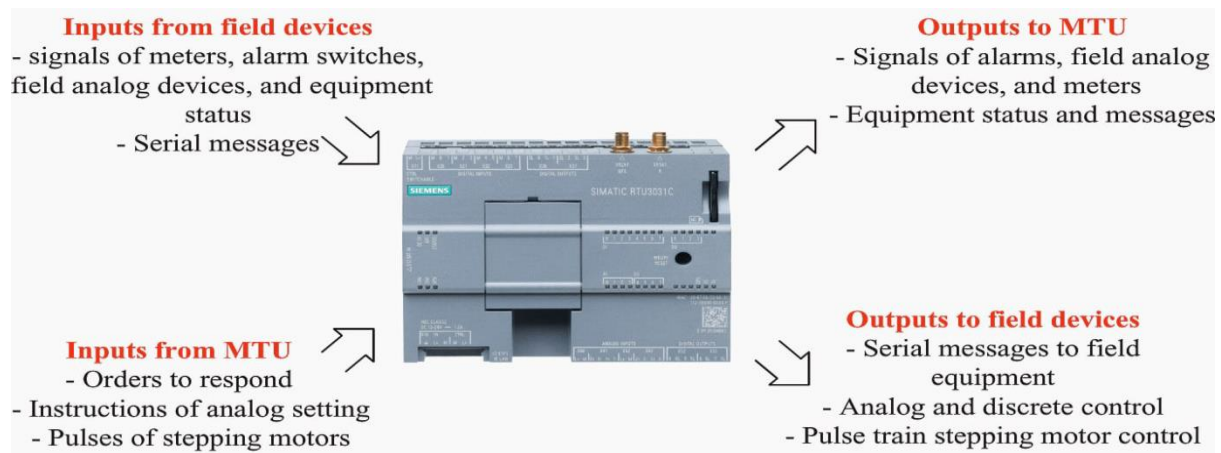


Fig. 5

### 3.3 Communication Networks

The geographically dispersed RTUs are connected to the MTU through a variety of communication channels, including radio links, leased lines, and fiber optics.

### 3.4 Information Transfer

As it is clear in the preceding sections, the information in SCADA systems is transmitted from the RTUs to the MTU and also from the MTU to the RTUs. Therefore, it is not sufficient to just transmit the information correctly, but it must also be done securely.



Fig.6

### 3.5 Master Terminal Unit (MTU)

It is also called “central control station, or central station, or SCADA master”. It is considered as the heart of the system where its main functions are:

1. Making the communication, gathering data, storing information, sending information to other systems;
2. Processing the data gathered by remote stations to generate the necessary actions and Interfacing with the operators mainly via monitors.

By,

GOWTHAM.S(FINAL-EEE)

MATHAN.S(FINAL-EEE)

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**Department of Electrical and Electronics Engineering**