

OBJECTIVE:

Recently there has been growing interest in renewable energy and it has become one of the primary sources of energy generation. The biggest concern in the field of renewable energy is power generation depending on natural resources that are uncontrollable by humans. Due to uncontrollable and uncertainty in energy, production in renewable energy technologies is making integration more complex. Also, there are several technical challenges with Renewable Energy Resources (RES), such as availability of power, power quality issues, resource location, information barrier and cost issues. All these challenges with RES can be addressed by microgrid system due to its ability during utility grid disturbances, to separate and isolate itself from utility seamlessly with little or no disruption to the load within the microgrid. Due to the recent developments in power electronics, the proliferation of DC nature electrical loads, renewable energy sources and energy storage devices, research focused on both the system and component levels of modelling, control and stability of structured microgrids. New high-efficiency topologies and protections are also key nontrivial issues when developing practical microgrids. Electric Vehicles (EV) are emerging as the option for clean mobility across the world. The EV ecosystem brings together three industry verticals who traditionally have not worked together. EVs need Automobile industry to modify the vehicles to use Batteries and new connected vehicle technologies. Power industry needs to gear up to fueling these EVs with electricity and they need to build Charging infrastructure across the highways, malls and workplaces. All these equipment are IOT enabled and connected so both telecom connectivity (4G/5G) along with Digital tech like Cloud, Data and analytics become essential for accelerating EV adoption.

For this reason, the objective of this course is to disseminate the recent technological advancement in microgrids and distribution systems from both academia and industry. The solutions using advanced technologies/ methodologies will also be discussed.

Topics to be covered:

- Microgrid configurations, control, synchronization and their applications.
- Reconfiguration of distribution system network in presence of large penetration of renewable generation into the system.
- Intelligent energy management systems.
- Power electronic converters in microgrid applications.
- Power sharing control in DC and AC microgrids.
- Control techniques and design of autonomous microgrid.
- Design of converter for DC microgrid.
- Simulation and analysis of hybrid and electric vehicles.
- Electric vehicles charging.
- Role of Electric Vehicles for Rural and Urban Development.

TARGET AUDIENCE:

Faculty members working from Engineering, Arts and Polytechnic Colleges, Research scholars, PG Students, Industry Persons from relevant background of Sciences and Engineering.

FACULTY:

Sessions will be handled by experienced faculty members from reputed institutions and Experts from Industry Fields.

BOARDING AND LODGING:

Accommodation and boarding will be provided in the college campus to all the participants on **chargeable basis**.

REGISTRATION FEE DETAILS:

No registration fee for all the participants. Registration is limited to 50 participants and selected on first-come-first serve basis.

HOW TO APPLY:

The applicants should fill the below Google form link and upload their scanned copy of application in the specified format with their Principal / Sponsor signature with seal. (Note: Without Principal / Sponsor signature and uploading mismatched file is not allowed to attend the seminar).

Google form link:

<https://forms.gle/jmjEdDe52BEHj5md6>

SCHEDULED DATES:

Last date for receipt of Applications:	31.12.2021
Intimation of Selection :	01.01.2022
Confirmation by participants :	02.01.2022

**KONGU ENGINEERING COLLEGE
(AUTONOMOUS)
PERUNDURAI, ERODE 638 060
TAMILNADU**

**DST (SERB) Sponsored
Two day National level**

Physical Mode Seminar on

**“Recent research Trends in Intelligent
Control Techniques for Microgrid and
Electric Vehicles Technology”
(06.01.2022 to 07.01.2022)**

APPLICATION FORM

Name : _____

Designation : _____

Organization : _____

Gender : _____

Age : _____

Educational Qualification: _____

Address for : _____

Communication : _____

Mobile Number : _____

E-mail ID : _____

Experience : _____

Teaching : _____ years

Others (Specify) : _____ years

Need Accommodation : YES / NO

Signature : _____

DECLARATION

The above information is true to the best of my knowledge. I agree to abide by the rules and regulations governing the course. If selected, I shall attend the programme for the entire duration. I also undertake the responsibility to inform the Coordinator in case I am unable to attend the course.

Place:

Date: Signature of the Applicant

SPONSORSHIP CERTIFICATE

Mr/Ms/Dr _____

is an employee of our Institute / Organization and is hereby sponsored. He/She will be permitted to attend the programme in full, if selected.

Place: Signature of the Sponsoring Authority

Date: Office Seal

For any queries contact:

Dr.S.Albert Alexander Ph.D., PDF (USA) , SMIEEE.,

Convener

DST (SERB) Sponsored
Two day National level

Physical Mode Seminar on

“Recent research Trends in Intelligent Control Techniques for Microgrid and Electric Vehicles Technology”

Department of EEE

Kongu Engineering College

Perundurai Erode-638 060 TamilNadu

Contact Mobile –9688427208, 9865931597

E-mail: ootyalex@gmail.com,

dsarathkumareee@gmail.com

ABOUT THE COLLEGE

Kongu Engineering College (KEC) established in 1984, approved by AICTE, New Delhi, accredited by NAAC for 5 years with the grade of “A” and an autonomous institution affiliated to Anna University Chennai, has completed 37 years of dedicated and excellent service in the field of technical education. The college offers 14 UG, 19 PG and 16 research programmes in Engineering and Applied Sciences. It is one of the best self financing engineering colleges imparting high quality technical education in Tamil Nadu, India, and is well-known for its technical excellence, modern facilities, record of performance with excellent results and enterprising students. Ranked 1st Position in Tamilnadu and 39th position at all India level by “Outlook” magazine, 3rd Position in Tamilnadu and 32nd Position in private Engineering colleges in India by “The Week” Magazine. Ranked 135th position in private Engineering colleges in India by NIRF ranking. It has an active Industry- Institute Partnership (IIP) Cell to interact with industries. Received Sustainable Institute Industry Partnership Award consecutively for two years (2014 & 2015) from the Institution in Society for Educational and Entrepreneurship Development, Chennai. It has got NBA accreditation for most of the UG programmes and is an ISO certified institution. It has also got the Best Engineering College award and the Best Principal Award from ISTE. It has established a Technology Business Incubator (TBI) supported by the Department of Science and Technology, Government of India, and won the National Award presented by the President of India on Technology Day in New Delhi. Kongu Engineering College has been awarded as the Most Clean Campus for the Year 2017 by AICTE.

ABOUT THE DEPARTMENT

The Electrical and Electronics Engineering department occupies a prominent place in the chronicles of its academic history. The department has been consistently producing illustrious Engineering graduates of high caliber who occupy prestigious positions in the academic and industrial fields. The specialization of the faculty includes Power System Engineering, Power Electronics and drives, Energy Engineering, Applied Electronics, Control Systems, VLSI, Bio-Medical Engineering, Digital Signal Processing, Sensors and Networks, Computer Networks, Instrumentation and Control etc. The department offers four year UG programme in EEE and two year PG programme in Power Electronics and Drives. The department also carrying out many consultancy activities like energy auditing to many industries. EEE Department of Kongu Engineering College has bagged the National level award under the category “Best Industry linked Technical Institute for the Electrical Engineering stream”, on the survey organized jointly by AICTE and CII during June-July 2013, for the year 2012-13. Renewable Energy Research Centre has been established under Department of Science and Technology funded Rs.1 crore to conduct research in renewable energy and provide tangible outcome in the form of product development for the Academic year 2018-19.

ABOUT THE LOCATION

The college is situated at Perundurai on the National Highway (NH 47) about 80 km from Coimbatore and 20 km from Erode.



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Two Days
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**Organizing Committee by
Convener**

**Dr.S.Albert Alexander Ph.D., PDF (USA) ,
SMIEEE.,**

UGC-Raman Research Fellow
Associate Professor / EEE

Co-Convener

**Dr.M.Srinivasan M.E., Ph.D.,
SERB TARE Research Fellow (IIT Madras)
Assistant Professor (Senior Grade) / EEE**

Coordinator

**Mr.D.Sarathkumar M.E.,
Assistant Professor (Senior Grade) / EEE**

Organized by
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dsarathkumareee@gmail.com**

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