

OBJECTIVES:

Agriculture is the sole provider of human food. Most farm machines are driven by fossil fuels, which contribute to greenhouse gas emissions and, in turn, accelerate climate change. Such environmental damage can be mitigated by the promotion of renewable resources such as solar, wind, biomass, tidal, geothermal, small-scale hydro, biofuels and wave-generated power. These renewable resources have a huge potential for the agriculture industry. The farmers should be encouraged by subsidies to use renewable energy technology. The concept of sustainable agriculture lies on a delicate balance of maximizing crop productivity and maintaining economic stability, while minimizing the utilization of finite natural resources and detrimental environmental impacts. Sustainable agriculture also depends on replenishing the soil while minimizing the use of non-renewable resources, such as natural gas, which is used in converting atmospheric nitrogen into synthetic fertilizer, and mineral ores, e.g. phosphate or fossil fuel used in diesel generators for water pumping for irrigation. Hence, there is a need for promoting use of renewable energy systems for sustainable agriculture, e.g. solar photovoltaic water pumps and electricity, greenhouse technologies, solar dryers for post-harvest processing, and solar hot water heaters. In remote agricultural lands, the underground submersible solar photovoltaic water pump is economically viable and also an environmentally-friendly option as compared with a diesel generator set. If there are adverse climatic conditions for the growth of particular plants in cold climatic zones then there is need for renewable energy technology such as greenhouses for maintaining the optimum plant ambient temperature conditions for the growth of plants and vegetables. The economics of using greenhouses for plants and vegetables, and solar photovoltaic water pumps for sustainable agriculture and the environment are presented in this seminar. Clean development provides industrialized countries with an incentive to invest in emission reduction projects in developing countries to achieve a reduction in CO₂ emissions at the lowest cost. The mechanism of clean development is discussed in brief for the use of renewable systems for sustainable agricultural development specific to solar photovoltaic water pumps in India and the world. This seminar decimates in detail the role of renewable energy in farming by connecting all aspects of agronomy with ecology, the environment, economics and societal change.

The Government of India is celebrating 'Azadi Ka Amrit Mahotsav', an initiative to commemorate 75 years of progressive independent India and the glorious history of its people, culture and achievements. This Mahotsav is dedicated to the people of India who have been instrumental in bringing to India its evolutionary journey and those who envisioned a new India, energised by the spirit of Atmanirbhar Bharat. In order to celebrate our glorious past, during the conduct of the programme two presentations on the themes/sub-themes of 'Azadi ka Amrit Mahotsav' is included.

COURSE CONTENTS:

- ✓ Need for renewable energy sources for agriculture
- ✓ Design and sizing of Solar PV based water-pumping system
- ✓ Design and sizing of wind energy based water-pumping system
- ✓ Field visit to 3 kWp solar power plant
- ✓ Energy Conservation practices for agricultural sector
- ✓ Biomass based trigeneration system for sustainable and inclusive growth of Cauvery delta farmers
- ✓ Waste to energy-Biochemical and thermo chemical conversion of biomass
- ✓ Design of biomass plant
- ✓ Smart agriculture design for condition monitoring
- ✓ Hybrid energy based microgrid installation and demonstration for agricultural applications

Themes/sub-themes of 'Azadi ka Amrit Mahotsav':

- ✓ Freedom struggle and sacrifice by our leaders
- ✓ Ideas@75 - Innovations and Ideas of India

TARGET PARTICIPANTS:

This three days program is designed for Farmers, Researchers working in the field of Renewable Energy Sources, Faculty members from Technical & Higher Education Institutions / Universities (Government & Deemed Universities) and who are the key personnel to understand and acquire the skills in Utilization of Renewable Energy Sources in Agricultural Applications.

RESOURCE PERSONS:

Sessions will be handled by experts from Industries, leading academic organizations and Agriculture Research fields.

BOARDING AND LODGING:

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

REGISTRATION 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/PwohZPvaNZRqTtMi8>

SCHEDULED DATES:

Last date for fill the Google form : 10.01.2022
Intimation of Selection : 11.01.2022
Confirmation by participants : 12.01.2022

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

Indian Council of Social Science Research (ICSSR)
Sponsored Three Days National Level

Physical Mode Seminar on

“Awareness Program on Possible Utilization of
Renewable Energy Sources in Agricultural
Applications for the benefit of Cauvery Delta region
farmers”

(20.01.2022 to 22.01.2022)

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),,

Associate Professor

Convener

ICSSR Sponsored Three Days National Level

Physical Mode Seminar on

“Awareness Program on Possible Utilization of Renewable Energy Sources in Agricultural Applications for the benefit of Cauvery Delta region farmers”

Department of EEE

Kongu Engineering College

Perundurai, Erode-638 060, Tamilnadu.

Contact Mobile – 9865931597, 9688427208

E-mail: ootyalex@gmail.com,

dsarathkumareee@gmail.com

Website: www.ootyalex.webs.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 165th 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 too 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.



**ICSSR
Sponsored
National Level
Physical Mode
Seminar on**



**“Awareness Program on Possible Utilization of Renewable Energy Sources in Agricultural Applications for the benefit of Cauvery Delta region farmers”
(20.01.2022 to 22.01.2022)**

**Organizing Committee by
Convener**

**Dr.S.Albert Alexander Ph.D., PDF (USA),,
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
Department of Electrical and Electronics
Engineering
Kongu Engineering College
Perundurai – 638 060, Erode, Tamilnadu

