AICTE-QIP Sponsored Online One Week Short Term Course

On

Issues and challenges of Grid Connected Renewable Energy Sources (ICGCRE-22)

21st Feb -25th Feb 2022

Registration

Eligibility:

Faculty Members/Research Scholars / M.Tech-B.Tech Students/Industry Professionals *You are required to fill the Google Form at the following link:

https://forms.gle/gaZJJnJ27Tw62p826

Last date for filling Google form: 15th Feb 2022Intimation of confirmation: 17th Feb 2022Commencement of STC: 21st Feb 2022

Seats are limited and will be confirmed on first come first serve basis.

The daily schedule will be in four online sessions: 10:00 am -11:30 am, 11.45 am - 1:15 pm, 2.00 pm - 3.30 pm and 3:45 pm - 5:15 pm For any STC related query, please contact **Email:** gip@jmi.ac.in

Mobile No.: 9718354422, 9719194004

CERTIFICATE

A Certificate to the participants will be issued on successful completion of the STC.



Department of Electrical Engineering Faculty of Engineering and Technology



Jamia Millia Islamia (NAAC Accredited A++ Grade), New Delhi

PATRON

Prof. Najma Akhtar Vice-Chancellor, Jamia Millia Islamia, New Delhi

Prof. Anil Dattatraya Sahasrabudhe Chairman, AICTE

MENTOR

Dr. Nazim Husain Al-Jafri Registrar, Jamia Millia Islamia, New Delhi

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PROGRAM ORGANIZING COMMITTEE

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"Issues and challenges of Grid Connected Renewable Energy Sources (ICGCRE-22) 21st Feb -25th Feb 2022



Organized by DEPARTMENT OF ELECTRICAL ENGINEERING (NBA Accredited for 6 Years)

> *Coordinator* Prof. Majid Jamil

Under the Aegis of Quality Improvement Programme – AICTE

> Jamia Millia Islamia Jamia Nagar, New Delhi-110025 https://www.jmi.ac.in/electrical

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Department of Electrical Engineering Faculty of Engineering and Technology Jamia Millia Islamia (NAAC Accredited A++ Grade), New Delhi



JAMIA MILLIA ISLAMIA (NAAC Accredited A++ Grade)

Jamia Millia Islamia, an institution originally established at Aligarh in United Provinces, India in 1920 became a Central University by an act of the Indian Parliament in 1988. In Urdu language, Jamia means 'University', and Millia means 'National'. The story of its growth from a small institution in the pre-independence India to a central university located in New Delhi—offering integrated education from nursery to research in specialized areas—is a saga of dedication, conviction and vision of a people who worked against all odds and saw it growing step by step. They "built up the Jamia Millia stone by stone and sacrifice by sacrifice," said Sarojini Naidu, the nightingale of India.

By a Special Act of the Parliament, Jamia Millia Islamia was made a central university of India in December 1988. In the list of the faculties, i.e., Education, Humanities & Languages, Natural Sciences, Social Sciences. Engineering & Technology, one more Faculty - Faculty of Law, was added in 1989. Many new courses and programmes at UG and PG levels have since been added. Besides its Nine faculties, the Jamia has a number of centers of learning and research, like AJK-Mass Communication Research Centre (MCRC), Academy of International Studies etc. The Jamia is also marching ahead in the field of Information Technology (IT). It offers various undergraduate and postgraduate IT courses. Apart from this, the Jamia has a campus wide network which connects a large number of its departments and offices.



DEPARTMENT OF ELECTRICAL ENGINEERING

The Department of Electrical Engineering at the Faculty of Engineering & Technology of Jamia Millia Islamia (JMI), New Delhi is one of the premier electrical engineering education and research departments of the Country and is also one of the DST FIST & UGC SAP departments of JMI. Since its inception, in 1985, Faculty of Engineering & Technology of Jamia Millia Islamia, New Delhi, has grown leaps and bounds and continuously striving for excellence. Apart from offering regular four-year under graduate programmes, i.e., B. Tech. in Electrical Engineering and B. E. (evening) in Electrical Engineering, the department has been serving to the specialized needs of the industry by running two regular M. Tech. Programs.

The Department of Electrical Engineering has been successfully achieving its research endeavors through its very well structured and disciplined Ph. D. program. Admission of the students in each programme is highly competitive and is through All India Entrance Test. The faculty members of the department lead by examples and are highly motivated to achieve excellence in research and development and publish their research in internationally peer reviewed journals, patenting their research findings, and bringing generous research grants from Govt. research funding agencies like AICTE, MHRD, MNRE, DRDO, etc. To augment the teaching, learning and research, department has very well-established laboratories for graduate and post graduate programmes, where students can experiment and test the electrical engineering concepts. Department also has laboratories in some specialized areas like SCADA, Smart Grid RTDS. . Sensors & Instrumentation. Advanced Power Electronics Research Lab etc. Besides these laboratories, there are many other state-of-the-art experimental set-ups/hardware and sophisticated software being used for teaching and research in the thrust areas related to electrical engineering.

VISION OF DEPARTMENT

To produce comprehensively trained socially responsible, innovative electrical engineers and researchers of highest quality to contribute to the nation's imprint on the world stage.

MISSION OF DEPARTMENT

- 1. Department is committed to provide world class teaching, mentoring with intellectual stimulation.
- 2. Department is committed to industry collaboration and state of the art research.
- 3. Department is committed to outreach program to address societal and industrial needs.

ABOUT THE STC

This STC is intended to provide a common platform for experienced academicians, industry professionals, research scholars for discussions on distinctive understanding of the various issues and challenges of integrating Renewable Energy Sources (RESs) into the utility grid. Due to the rapid socioeconomic growth coupled with the unceasing rise in energy demand, fast depleting fossil reserves and environmental concerns around the globe, exploring diverse and low carbon energy resources has become a necessity and not an optional mission. Grid connected RESs provide a watershed and unlock a host of useful applications in the modern power grids. Further, a promising development of Smart Grid concept within traditional power utility can be made with the help of renewable technologies. Although RES technologies have several appealing factors, there exists a trade-off point between the benefits of RESs and the potential adverse grid effects at transmission and distribution levels which might impact the stability. quality and reliability of the utility grid. These challenges escalate as the RES technologies penetration increases. During the energy transition period, it will be crucial to carry out testing, monitoring, state-of-the-art compliance technologies, control methods, and development of standards and regulations to ensure that the benefits we envision from the Smart Grid become a reality.

OUTCOMES

This STC is expected to provide thorough understanding and comprehensive knowledge about the issues, challenges, recommendations and benefits of Grid Connected Renewable Energy Resources. It is anticipated that the participants attending the programme will be able to learn, apply and disseminate the acquired knowledge in making effective sustainable solutions to the various issues of reliable, secure, stable and economic operation of the contemporary electric grids.

BROAD TOPICS TO BE COVERED

Recent trends for Optimal Integration & Coordinated Management of RESs, Smart Grid Technologies, Monitoring & Control Methods, Power Quality issues, Power Electronic devices for Grid Connected RESs, DER technologies and associated issues & challenges.

RESOURCE PERSONS

Eminent Professors from IITs, NITs, Reputed University, as well as experts, scientist from highly admired industries and research centres will engage sessions during STC.