राष्ट्रीय प्रौद्योगिकी संस्थान कालीकट
NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

# NATIONAL WORKSHOP ON
# LARGE SCALE RENEWABLE INTEGRATION: A PERSPECTIVE ON POWER SYSTEM STABILITY

**Organized by**
**Power & Energy Group**
**Department of Electrical Engineering**

**April 8th – 12th , 2019**

## Workshop Co-ordinators

**Dr. Sunitha R.**
**Dr. Gopakumar P.**
**Dr. Deepak M.**

## Scope of Programme

**Electricity and the underlying infrastructure for its production, transmission, and distribution are essential to the well-being of society. The rising concerns of climate change and depletion of fossil fuels in the foreseeable future are driving renewable generation developments rapidly. Among the various renewable sources, the wind and solar energies are the most dominant technologies because of their abundancy and outstanding technical and economic prospect. Global Energy Council estimated that 20 Million MW of wind can be utilized which is nearly 10 times higher than the water energy. The emerging advancements in renewable energy technologies seems to make them most economical in near future. However, in power system perspective, renewable energy technologies come with many issues. That starting from the uncertainty and intermittency to reduced inertial support. Their impact on overall behaviour power system cannot be overlooked and becomes more complex when it comes a deal with stability issues. On this context, this national workshop is aimed at delivering an overview of instability problems associated with the integration of large scale renewable energy integration. It can facilitate better understanding of small signal stability of high renewable energy penetrated power systems and potential solutions to accommodate high penetration via large-scale integration of renewable energy.**

## Major Attractions of Workshop

1. Global perspective on renewable energy
2. Power system stability, security and protection
3. Grid tied renewable energy technologies
4. Microgrids and Smart grids
5. Wide area technologies
6. Hybrid power technologies
7. Compensation techniques
8. Energy Storage in renewable integrated systems
9. Low Inertia grid and associated issues

## Glimpses on NITC

**NIT Calicut: National Institute of Technology Calicut was founded as Regional Engineering College, Calicut in 1961. Set in a picturesque at the foothills of the Western Ghats, it is located about 22 kilometers north-east of Calicut city. It is prestigious institute with a reputation for excellence at both undergraduate, postgraduate and research levels, fostering the spirit of national integration among the students and a close interaction with industry. For details see the website: www.nitc.ac.in**

## Dept. of Electrical Engineering

**Established in 1961, the Department of Electrical Engineering of the National Institute of Technology Calicut offers programmes leading to Bachelor's Degree, Master's Degree as well as Ph.D. The four year undergraduate programme leads to the Bachelor of Technology (B. Tech) degree in Electrical and Electronics Engineering. Specializations for the Master's level programmes are (i) Instrumentation & Control Systems, (ii) Power Systems, (iii) Power Electronics, (iv) Industrial Power and Automation, and (v) High Voltage Engineering. In addition to these regular programmes, this department is also actively involved in conducting faculty development programmes, job oriented short-term training programmes, continuing education programmes for engineering professionals and academic faculty. Department has a number of sponsored projects in different areas funded by agencies like DRDO, KSCSTE etc.**

## Speakers

**Academicians from IISc / IITs / NITs & Professionals from reputed industries.**

## Who can attend?

**Faculty members from various Engineering Colleges/Institutions can apply. Working professionals and practicing engineers from various Research Organizations and Industries, and Research scholars can also apply. Maximum seats limited to 60 (on first come first serve basis).**

## Registration Fee

**Industry/Research professionals: Rs. 7500 + 18% GST**
**Faculty: Rs. 6000 + 18% GST**
**Students: Rs. 4000 + 18% GST**
**Mode of Payment – IMPS/NEFT/RTGS ONLY**
**Bank Account Details: Director NIT Calicut, Continuing Education Program, (Account Number – 37618269594, SBI NITC Branch, IFSC Code – SBIN0002207)**

## Important Dates

**Last date for submitting online application: March 11, 2019.**
**Date of intimation of selection: March 15, 2019.**

## Accommodation

**All faculty, participants from industry /research organizations, and research scholars may be provided lodging facility in the hostel/international hostel/Institute Guest house on payment basis, subject to availability. No TA/DA will be paid for any participant.**

## Registration

**For registration, kindly fill the online form, upload scanned copies of the registration form and the proof/receipt of IMPS/NEFT/RTGS using the link *https://goo.gl/uqXvZb* or scanning the QR code given on or before March 11, 2019.**

# NATIONAL WORKSHOP ON
# Large Scale Renewable Integration : A Perspective on Power Systems Stability

**April 08-12, 2019**

**Power & Energy Group, Department of Electrical Engineering,**
**National Institute of Technology, Calicut, Kerala, India**

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Registration Form

Name: ..... Gender :.....

Designation:.....

Highest Qualification & Specialization: .....

Organization.....

Address:.....

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Mobile No: ..... Email: .....

Your current research/ ongoing project .....

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Details of Payment of Course Registration Fee (NEFT/RTGS only)

Transaction Number ..... Date ..... Bank .....

Amount Paid ..... (including GST)

Accommodation Required: Yes/ No

Date ..... Signature of the Applicant.....

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**For queries:**

**Dr. Sunitha R.,**
**Dr. Gopakumar P.,**
**Dr. Deepak M.**
**(Co-ordinators)**

National Workshop on Large Scale Renewable Integration: A Perspective on Power Systems Stability

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**APPROVAL FROM AFFILIATED INSTITUTE OF THE APPLICANT**

Certified that Prof./Dr./Mr./ Ms/ ..... is an employee/student of .....(institute name). If selected, he/she will be permitted to attend the National Workshop on **Large Scale Renewable Integration: A Perspective on Power Systems Stability** conducted by NIT Calicut during April 8-12, 2019.

Date: .....

Signature .....
and Seal of Approving Authority