



LARGE SCALE GRID INTEGRATION OF RENEWABLE ENERGY SOURCES: CHALLENGES, ISSUES, MODELING AND SOLUTIONS

TEQIP-III Sponsored Online Short Term Course

(23-27th September 2020)

Organized By

The Department of Electrical Engineering,
National Institute of Technology Srinagar, J&K

(An institute of national importance under the aegis of Ministry of HRD, Govt. of India)

India is considering renewable energy resources (RES) like solar and wind as alternative for future energy needs. The Government of India has set a target of achieving 175GW generation through solar, wind and other renewable resources to be achieved by end of year 2022, which includes 100 GW from solar, 60 GW from wind, 10 GW from bio-power and 5 GW from small hydro-power. In the near future when renewable penetration to the network will be sufficiently large, it will impose several challenges for power system operators (especially, grid operators).

Increasing the number of RES creates uncertainty in load and power supply generation, which also gives an additional strain to the system. These uncertainties will affect the voltage and frequency variation, stability, protection, and safety issues at fault levels. The issue of maintaining voltage profile during dynamic and transient grid conditions subsequent to renewable mix generation needs to be looked into, on top priority. The flexible generation due to unpredictable wind pattern and solar generation which sometimes varying in nature due to cloud movement, will impose a challenge in modeling to ensure the power quality and efficient grid operation.

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Mr. Biswajeet
Field Application Engineer
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Mr. Bharadwaj
Field Application Engineer
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Experts from Opal-RT Technologies

The main objective of this STC is to make aware the participants about the various challenges, issues and complexities involved with large grid penetration of renewable energy system and their possible solutions with effective coordination control methods.

The speakers of this STC are from academia and industry and are experts in their field.

- There is no fee for attending this STC
- B. Tech./M. Tech./Ph. D. students and Faculty members can join.
- Only 100 participants are allowed to join on first come first serve basis.
- E-certificates will be distributed after the event
- For any issues contact:-
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Technical Partner



Registration link:-

<https://docs.google.com/forms/d/1ewfStvnf1liE5npN30GrEclRBkKW92fKTxcJ4yVFW4/edit>

Last date of registration:- 19th Sept. 2020.

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