Indira Gandhi Institute of Technology, *SARANG*

(An Autonomous Institute of Govt. of Odisha)

Presents

TEQIP-III

Sponsored

Online Faculty Development Program On

"RENEWABLE POWER GENERATION, CONTROL AND GRID INTEGRATION (RPGCGI)-2020"

10th-14th August, 2020

Patron-in Chief

Dr. Satyabrata Mohanta

Director, Indira Gandhi institute of Technology, Sarang

General Chair

Dr. (Mrs.) Pranati Das

Assoc. Prof. and Head, Dept. of Electrical Engg.

Organized by

INDIRA GANDHI INSTITUTE OF ENGINEERING SARANG, DHENKANAL, ODISHA-759146

Advisory Committee

Dr. B. P. Panigrahi, Dean, FARC
Dr. Md.N.Khan, Nodal Officer, TEQIP-III
Dr. S. Sethi, Nodal Officer, Finance, TEQIP-III
Dr. A. Rout, Nodal Officer, Procurement, TEQIP-III

COORDINATORS

Dr. Rabindra Behera
Assoc. Professor, (COORDINATOR, TEQIP-III)
Dept. of EE, IGIT Sarang, Odisha

Dr. (Mrs.) Aditi Chatterjee
Asst. Professor (TEQIP)
Dept. of EE, IGIT Sarang, Odisha
Email: aditichatterjee.ee@gmail.com
Mo: 9668575217

CO-COORDINATORS

Mr. Bibhu Prasad Ganthia
Asst. Professor
Dept. of EE, IGIT Sarang, Odisha
Email: jb.bibhu@gmail.com
Mo: 9040199807

Mr. Biswajit Sahoo
Asst. Professor (TEQIP)
Dept. of EE, IGIT Sarang, Odisha
Email: sahoobiswajit1000@gmail.com
Mo: 9777818361

Organizing Committee

Mr. R. Subudhi, Asst. Prof., IGIT, Sarang
Mr. M. P. Behera, Asst. Prof., IGIT, Sarang
Mr. B. D. Biswal, Asst. Prof., IGIT, Sarang
Mr. Umakanta Mahanta, Asst. Prof., IGIT, Sarang
Mr. Brijesh Kumar, Asst. Prof., IGIT, Sarang
Mr. M. K. Chaudhury,Asst. Prof., IGIT, Sarang
Mr. K. C. Pradhan, Asst. Prof., IGIT, Sarang
Mr. B. K. Nayak, Asst. Prof., IGIT, Sarang
Mr. K.V.V Surya Srinivas , Asst. Prof. (TEQIP), IGIT, Sarang
Mr. S. K. Biswal, Asst. Prof. (TEQIP), IGIT, Sarang

About College

Indira Gandhi Institute of Technology (IGIT), Sarang was established in the year of 1982 and was managed directly by the Govt. of Odisha in the name of Odisha College of Engineering (OCE). Presently, the Institute is offering nine Under Graduate Engineering courses in Civil, Chemical, Electrical, Mechanical, Metallurgical & Materials Engineering, Electronics & Telecommunication, Computer Science Engg., Production Engg., Architecture; & two part-time Post Graduate Engg courses in Industrial Power Control & Drives, Environmental Sc. & Engg.; nine full time Post Graduate Engg courses / Master course Computer Sc.Engg., Electronics and Telecom. Engg, Geotech Engg. Transportation Engg, Mechanical System Design, Mett. & Materials Engg., Power Electronics & Drives, Power System Engg., Production Engg., Structural Engg., Master's in Computer Application; besides five Diploma Courses in Civil, Electrical, Electronics & Telecommunication, Mechanical & Metallurgical & Materials Engineering.

Website: www.igitsarang.ac.in

OVERVIEW OF THE PROGRAM

In this era of globalization, modernization, and industrialization, the chief concerns are environmental pollution and population explosion. The conventional power plants, reliant on fossil fuel reserves, are not enough to meet the electricity demand because of the exhaustion of these reserves. Moreover, the fossil fired power plants contaminate the environment with the emission of toxic gasses and residues. To overcome these tribulations, renewable energy resources (RES) have been accepted as alternative power generation sources. But the RES are highly intermittent in nature and add complexity to normal grid operation. An emerging concept, known as the smart grid enables the RES based power plants to transmit power to the public grid as well as meet the local load demands. The smart grid evolves through integration of certain basic structures called as microgrid. Microgrid is an integrated network of Distributed generation (DG) plants, loads and energy storage devices. The DGs are interfaced with the grid through power electronics converters (PEC). The PECs integrating the DG plants with the grid have stringent control requirements. The objective of the course is to focus on the various control issues considering the grid integration of RES and the challenges in microgrid operations.

Program Objectives

- Identify the significance of renewable energy and clean energy as alternative sources of power generation in present day scenario.
- Understand the various control objectives underlying the integration of the renewable power sources with the electric power system.
- Promote innovative ideas, concepts and challenges in microgrid technologies.

Invited Resource Persons

The invited resource persons for this online Faculty Development Program (FDP) are faculties and experts from IIT's/NIT's and other renowned Universities.

TARGET AUDIENCE

This course is open for faculty members from different engineering colleges and Universities, post-graduate students and research scholars, Engineers/Practitioners from government/private sectors.

Last Date for Registration is 8th August 2020

REGISTRATION DETAILS

TEQIP-III Sponsored Online Faculty Development Program on

"RENEWABLE POWER GENERATION, CONTROL AND GRID INTEGRATION-(RPGCGI)-2020"

10th-14th August, 2020

- **There is no registration fee for the course.**
- **The course will be conducted on online platform through Webex /Microsoft Teams.**
- **The participants are required to fill the google form given in the registration link and register for the course as soon as possible. Seats are limited.**
- **In order to enhance the learning outcomes from the course, participants are requested to be fully committed to this course.**
- **E-certificates will be issued to participants after successful completion of the course.**

Registration Fee:- Nil

Registration Link:-

https://docs.google.com/forms/d/e/1FAIpQLSek7YWVgZEMviRI-gTwHVG5pWGpt4XKl0hsmGXmvEIdctgDeA/viewform?usp=pp_url