#### **INTRODUCTION**

With recent developments in renewable energy sources like solar, wind, fuel cell, their management through grid has become a challenging issue. Successful operation of these renewable energy systems, their grid integration issues and power quality issues, all combined are heavily dependent on the latest technology including power electronics. Demands on development of micro-grids and smart grids with inclusion of renewable energy sources are propelling the technological developments at a fast rate. So, there is necessity of updating the knowledge with developments in these fields. This short term course program will help the participants to update their knowledge in this domain.

## **SCOPE:**

Renewable energy sources have become inevitable and only hope for future energy requirement. Their grid integration, satisfying the grid codes particularly in adverse and faulty conditions have become more important. Improving the power quality in face of heavy challenges due to increased use of computers and power electronic equipment's is also very important issue. So, it is highly necessary to do research, disseminate and discuss all these issues under one common roof. Thus this course "Grid Integration of Renewable Energy Sources and Power Quality" is highly relevant and has tremendous scope.

#### **TOPICS TO BE COVERED**

Recent trends in PV, Wind energy, fuel cell and hybrid systems, their grid integration issues, smart grids and micro-grids, Power quality, series and shunt compensation, FACTS, STATCOM, DVR, UPFC.

## WHO CAN ATTEND

All faculties and staffs from engineering institutions/Universities are eligible to apply.

### **REGISTRATION FEE**

#### Registration is free for all participants.

Registrationkit,Coursematerials,Accommodation\*,Fooding and Refreshmentswill be provided.

\* Accommodation will be provided to selected candidates in the Institute guest house on the availability basis. But participants will not be paid any travel expense.

## HOW TO APPLY:

Interested participants should send their filled-in Registration form to:

#### **Prof. K. B. Mohanty** (**Program Coordinator**)

Associate Professor Department of Electrical Engineering, National Institute of Technology, Rourkela – 769008 (Odisha), INDIA Phone No: 0661-2462404 (O), 09437837589, 09937316640 (M) Email: <u>kbmohanty@nitrkl.ac.in</u>

Applicants should also send signed and scanned soft copy of the Registration form by e-mail to <u>kbmohanty@nitrkl.ac.in</u>.

Applicants must provide their e-mail ID and mobile numbers in the Registration form. The intimation will be sent by e-mail and SMS only.

#### **Important Dates**

Last date of application: 28 September 2016

Selection intimation to the applicants will be sent by e-mail on basis of receipt of applications and suitability and completed by 29 September 2016.

Course duration: 01<sup>st</sup> to 03<sup>rd</sup> October 2016



National Institute of Technology, Rourkela Department of Electrical Engineering

TEQIP-II Sponsored Short Term Training Program on

Grid Integration of Renewable Energy Sources and Power Quality 1<sup>st</sup> – 3<sup>rd</sup> Oct., 2016 Registration Form

| 1. | Name:          |
|----|----------------|
| 2. | Qualification: |
| 3. | Designation:   |
| 4. | Department:    |
| 5. | Institution:   |
| 6. | Address:       |
|    |                |

7. Phone/ Mobile (must): .....

- 8. E-mail (must): .....
- 9. Accommodation required in the Institute Guest House: YES / NO

Date:

#### Place:

Signature:

Forwarded through H.O.D./Institute

# The Institute and Department of Electrical Engineering

NIT Rourkela has made a rapid progress as an Institute of higher learning, in the last decade. Department of Electrical Engineering was established in 1961. Since its inception, the Department is under dynamic progress and is reputed for imparting quality education both at B. Tech, M. Tech levels. The Department currently runs four M. Tech programmes with the specializations in (i) Power Electronics and Drives, (ii) Control and Automation, (iii) Industrial Electronics, (iv) Electronic Systems and Communication. Besides, a good number of research scholars are working towards the PhD degree. The Department has well equipped modern laboratories such as Power Electronics and Drives Lab., Machines Lab, Power System Lab., Control & Robotics Lab., Signal Processing & Communication Lab, Embedded Systems & Real-Time Lab. and Soft Computing Lab. for pursuing research in the emerging areas of Electrical Engineering.

#### **ORGANIZING COMMITTEE**

#### Patron:

Prof. R. K. Sahoo, Director, NIT Rourkela
Chairman: Prof. J. K. Satapathy, NIT Rourkela
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Prof. Susmita Das, NIT Rourkela
Prof. Dipti Patra, NIT Rourkela



#### Grid Integration of Renewable Energy Sources and Power Quality

1<sup>st</sup> – 3<sup>rd</sup> October, 2016



Prof. K. B. MOHANTY (Coordinator) Organized by



Department of Electrical Engineering National Institute of Technology Rourkela Rourkela, odisha-769008, India