

Send your Registration forms

To

Dr. S. Senthil Kumar,  
Coordinator /  
TEQIP Sponsored workshop on Wind-driven Generators,  
Assistant Professor,  
Department of Electrical and Electronics Engineering,  
National Institute of Technology, Tiruchirappalli,  
Tamil Nadu – 620 015.

## RESOURCE PERSONS

The Department of Electrical and Electronics Engineering of this institute started in the year 1964, is now offering undergraduate programme, postgraduate programmes (Power Systems & Power Electronics) and research degrees (MS & Ph.D.) in various fields of electrical and electronic engineering. The Department is recognized for excellence in research, teaching and service to the profession. Faculty members of this department with large number of years of experience in teaching, research and laboratory developments will be conducting the theory and practical sessions.

## COORDINATORS

Dr. S. Senthilkumar  
Dr. N. Kumaresan &  
Dr. N. Ammasaigounden

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Electrical and Electronics Engineering,  
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**TEQIP II Sponsored workshop  
on**

**Operation and Control of  
Wind-driven Generators**

**15 - 16, April 2016**



**Organized by**

**Department of  
Electrical and Electronics Engg.  
National Institute of Technology,  
Tiruchirappalli,  
Tamil Nadu - 620 015.**

### Scope of the workshop

Due to fast depletion and environmental pollution caused by conventional sources, there is an increased emphasis on the exploitation of renewable energy resources. Among these renewable sources, wind energy electric conversion systems have been found to be viable in contributing significant amount of electric power, when installed in locations where adequate wind potential is available over most part of the year. Electrical machine functioning as generator is needed for converting wind energy to electrical energy. Such Wind-driven Generators (WGs) are broadly classified into two categories namely (i) stand-alone generators for supplying isolated loads and (ii) grid connected generators for feeding power to the grid at the constant frequency and voltage of the grid.

The output voltage and frequency of the stand-alone wind generator systems vary with the driving speed and load. This ac power, even though, can be used directly for certain frequency insensitive loads, many practical applications require its conversion to a constant dc voltage or even further inversion to an ac voltage of desired frequency and magnitude. This requires the use of appropriate power electronic converters between the generator terminals and load.

It is to be noted that, the ratings of the grid-connected wind generator systems increase steadily and grown to MW range. In order to improve increased energy capture and operational flexibility with varying nature of wind, wind-turbine generator technology has undergone tremendous change from the early fixed-speed turbine generator systems to variable speed systems. This requires the generator to be interfaced to the grid through power electronic converters.

This workshop aims at explaining the operation and control of different WGs through comprehensive lectures and laboratory classes to the teachers, researchers and practicing engineers working in this area.

### Course Content

- **Operation and analysis of induction generators and permanent magnet synchronous generators.**
- **Power electronic controllers for the operation of wind-driven generators.**

### Registration

**Registration Fee: Rs. 220/- per participant**

With a view to give individual attention to the participants and to make the program more effective, the number of participants is restricted to about 20 (external) and 20 (internal).

The registration fee includes workshop kit, lunch and refreshments for both the days.

Free accommodation for the limited number of participants will be arranged in the institute hostels / guest house on first come first serve basis. Normally it will be a twin shared accommodation.

### Important dates

Completed Registration forms accompanied by registration fee (**in the form of DD**) should reach the coordinator not later than **4<sup>th</sup> April 2016**.

The selected candidates will be intimated by **5<sup>th</sup> April 2016** by e-mail.

### REGISTRATION FORM

### **TEQIP II Sponsored workshop on Operation and Control of Wind-driven Generators**

**15-16 April 2016**

Name : \_\_\_\_\_

Designation : \_\_\_\_\_

Organization : \_\_\_\_\_

Official Address : \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Mobile/Telephone: \_\_\_\_\_

e-mail : \_\_\_\_\_

Accommodation Required : \_\_\_\_\_ Yes / No

Payment details

DD No. : \_\_\_\_\_

Date : \_\_\_\_\_ Rs.220/-

**(DD should be drawn in favour of “The Director, NIT, Tiruchirappalli” payable at Tiruchirappalli)**

Date :

Signature : \_\_\_\_\_