

# 7<sup>th</sup> INTERNATIONAL CONFERENCE ON RENEWABLE ENERGY RESEARCH AND APPLICATIONS ICRERA 2018

## **Special Session**

#### On

# **Opportunities and Challenges of Integrating Renewable Energy sources towards Smart Grid**

Smart grid technology is the key for an efficient use of distributed energy resources. Noting the climate change becomes an important issue the whole world is currently facing, the ever increasing price of petroleum products and the reduction in cost of renewable energy power systems, opportunities for renewable energy systems to address electricity generation seems to be increasing. However, to achieve commercialization and widespread use, an efficient energy management strategy of system needs to be addressed. Recently, the concept of smart grid has been successfully applied to the electric power systems.

Smart grid has a demanding and critical role in the future of efficient power generation and distribution. Renewable energy system is an innovative option for electricity generation, especially the PV system as it is a clean energy resource. However, to achieve a goal, a lots of issues need to be solved or addressed. These issues are basically related to the design and size of the system, the suitable and effective model which can cover the technical and financial aspects of PV smart grid to supply electricity, and the equalized electricity price for integrating PV in a smart grid system. This special session aims to bring together researchers and developers from academia, industry and governmental institution to share and

exchange novel ideas and experiences that address challenges in developing intelligent systems for power networks. Topics include, but are not limited to:

- Smart Grid Technologies
- Power Generation Technologies and Power Apparatus
- Power System Operation, Control, and Automation
- Power System Optimization, Forecasting, Planning, and Reliability
- Wide Area Monitoring, Protection and Network Control
- Extreme Events and Grid Resiliency
- Electricity Market and Policy/Regulatory Aspects
- Distributed Generation & Power Distribution Issues
- Technologies for Grid Interfacing
- Conditioners for Power & Energy Systems
- Energy and Demand Side Management
- Renewable Sources Grid Integration Challenges
- Energy Storage Technologies
- Power Quality Monitoring and Mitigation
- Micro Grids and Nano Grids
- Electric Vehicle and Grid Interaction
- Signal Processing Applications in Power Systems
- Computer and IT Applications in Power System

- Cyber and Physical Security of Power Grid
- Condition Monitoring and Power System Asset Management
- Power Engineering Education & Industry-Institute Collaboration

## **Organized by:**

Dr. Subhransu Sekhar Dash, SRM University, India

Dr.M.Arun Bhaskar, Velammal Engineering College, India

Dr.C.Subramani, SRM University, India

Emails:Sekhardash.s@ktr.srmuniv.ac.in,arunbhaskar@velammal.edu.in,subramani.c@ktr.srmuniv.ac.in

**Paper Submission Deadline:** 

Full paper Submission: June 30, 2018

Notification of acceptance: August 15, 2018

#### Final submissions due: September 15, 2018

All the instructions for paper submission are included in the conference website.

http:// www.icrera.org