



One Day Pre-Conference Tutorial

SOLAR ENERGY SYSTEMS – PHOTOVOLTAIC TECHNOLOGY

19th MARCH 2011

as a part of the

INTERNATIONAL CONFERENCE ON RENEWABLE ENERGY UTILIZATION

(ICREU) - 2012

Organized by

Department of Electrical and Electronics Engineering,

COIMBATORE INSTITUTE OF TECHNOLOGY, COIMBATORE – 14

Jointly with

OKLAHOMA STATE UNIVERSITY,

Stillwater, USA



REPORT

Globally, the usage of solar power is in the increasing trend. India has ambitious plans for the development of PV industry and solar power generation. Recently, the Government of India has launched the Jawaharlal Nehru National Solar Mission with a twin objective; to contribute India's long term energy as well as ecological security. The conversion of solar energy into electricity through PV system involves technical issues like design of solar array, matching with load requirements, capturing of maximum energy from the panels and interfacing the panels with either load or utility through properly designed power converter systems. To address the driving factors in PV technologies, this one-day pre-conference tutorial is intended for professionals, academicians and researchers who are interested in getting exposed to the challenges of harnessing solar energy and would get a chance to know the current status about various solar PV technologies both in national and international levels.

In order to accomplish these tasks, this one day pre conference tutorial on **SOLAR ENERGY SYSTEMS – PHOTO VOLTAIC TECHNOLOGY** was organized by Department of Electrical and Electronics Engineering, COIMBATORE INSTITUTE OF TECHNOLOGY and Jointly with Oklahoma State University, Stillwater, USA on Saturday, the 19th March 2011 in conference hall (Library Building)

The response to participate of this one day preconference tutorial was enormous from all the parts of the nation, a total number of 105 participants have participated which includes 5 participants from leading industrial organizations, 43 participants from academic institutions, 4

participants from research organizations, 17 student participants from neighbouring institutions, 21 faculty and 15 students from our institution.

The one day pre conference tutorial was inaugurated on 19th March 2010 by Dr. Ashok Rao, is currently working as Professor, Dept of E & C, CIT, Gubbi-Tumkur, Karnataka. Dr. Rao holds a BE, ME & Ph.D all in EE from Mysore University (1982), Indian Institute of Science, Bangalore (1985) and Indian Institute of Technology, Bombay (1991) respectively. The other dignitaries who attended this inaugural session were, Dr. R.Prabhakar, Secretary, Coimbatore Institute of Technology, Dr.V.Selladurai, Principal, Coimbatore Institute of Technology, Dr. S. Shanmugam, Administrative Officer, Coimbatore Institute of Technology, Dr.V.Jagannathan, Professor and Head, Department of EEE, Coimbatore Institute of Technology and Dr. E. Chandra Sekaran, Coordinator of this pre conference, Department of EEE, Coimbatore Institute of Technology.

This one day preconference with four technical sessions are handled by a resource person Dr. Ashok Rao and topic of discussion as follows:

Technical Session – I: **Renewable Energy- Solar Energy**

Technical Session – II: **Basics of Solar Energy as related to Solar PV**

Technical Session – III: **Solar Cells: Principle, Manufacturing and Use**

Technical Session – IV: **Solar PV System Components: Modules, Batteries, BoS**

Technical Session – V: **Solar PV System Design Issues: Modules, Batteries, BoS**

Technical Session – VI: **Two case Studies: Solar PV Lighting, Solar PV Water Pumping, Future and Esoteric**

This one day preconference was created a good platform for the participants intend to advance their research work in the field of solar energy PV systems. There was a very good interaction by the participants with the resource person.

This pre conference was concluded with certificate distribution.

The entire course materials are uploaded to international conference website which is given below.

www.icreu2012.com/pre-conference-tutorial/solar-energy-systemsmar-2011

