



National Workshop  
on  
SOLAR ENERGY TECHNOLOGY

March 23-24, 2017

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## About Workshop

The sun radiates more energy in one day than the world uses in one year. India has a tremendous scope of effective generation and utilization of solar energy as it faces 330 sunny days. The constantly diminishing non renewable energy sources, increasing cost of electricity, limitations of thermal, wind, & hydro power plants and scope of utilizing solar energy are few of the reasons, the world is striving for solar power utilization.

This workshop aims to provide the basic concepts, state of art techniques and recent advances in solar energy generation to the participants. This workshop shall make participants understand advances in solar photovoltaic system, solar cells, solar panels and other recent developments in solar energy technology. This Work-shop will be highly beneficial to the candidates who are interested to learn about power generation from Solar Panels.

### Objective of Workshop :

- To enhance the knowledge base of beginners and the solar energy professionals with the recent status of solar energy technologies.
- To portray state of art of solar energy technologies.
- To increase the number of trained people in solar PV area.
- To boost hardware testing and new product development for solar energy based systems.
- To provide an outline about recent advancements in power generation using solar panels.

### Contents of the Workshop :

#### Introductory :

1. Global and Indian Energy Scenario.
2. Types of solar technologies and applications.
3. Basics of electricity.
4. Overview of types of PV systems and components.

#### PV System Concepts and Components :

1. Solar resources, radiation and optimization.
2. PV modules.
3. Balance of System (BOS).

#### PV System Design :

1. Load calculation and analysis.
2. PV system designing.
3. Preparation of drawings for PV systems.

#### Advance Topics :

1. Standards and certification for PV components and systems.
2. Operation and maintenance

#### Troubleshooting of PV systems Safety :

1. General and specific safety and tools.
2. Specific safety for PV systems.



## About University

Invertis University is established in by Govt. of UP u/s 2f of UGC Act 22 of 2010 with 8 institutions and number of doctoral, PG, UG and polytechnic courses with various research facilities. It started its journey as Invertis Institute of Management Studies in 1998. In 2005, it stepped towards courses in engineering with Invertis Institute of Engineering & Technology. In 2008, Invertis Institute of Engineering & Management was added to its offering Further profile. In 2010, Invertis came up as a full-fledged University.

Invertis University is presently running Engineering courses (CS, EC, EE, EEE, Biotech, ME, CE), Computer Applications, Management, Pharmacy, Law, Architecture, Journalism & Mass Communication etc. Invertis University has been ranked 'Most Promising Upcoming Private University in Uttar Pradesh' by Brands Academy Education Excellence Award 2012 and 'Best Emerging University of North India' by Indian Achievers Podium. Recently on 27th June 2014, Invertis University has been conferred the award of "Outstanding B-School Engineering Award" by National Education Awards 2014.

The department of Mechanical Engineering & department of Electrical Engineering was started in the year 2005. Both the departments are running 10th batch along with B.Tech in Mechanical Engineering & Electrical Engineering, Electrical & Electronics Engineering. Both the departments of Invertis University also offers M. Tech in Mechanical Engineering and Diploma in Electrical, Automobile and Production Engineering. The departments are having large faculties and their post graduate, doctoral degrees from premium institutions like IIT's and NIT's. The department has been actively involved in research and teaching activities.

### Expert Lectures delivery :

The lectures and tutorials will be delivered by experts from IITs/NITs Faculty.

### Who can participate?

Faculty/Engineers/Working Professionals in Academia/R&D Labs/Industry with basic degree in Electrical and Mechanical/Production/ Metallurgical Engineering are eligible. B.Tech, M.Tech and PhD Scholars are also encouraged to participate in the course.

### Registration Details

The course fees for category wise are as follows:  
Faculty : Rs. 500/-  
Students (B.Tech./M.Tech.) : Rs. 250/-

**Important Note :**  
Last date to receive the registration forms in the prescribed format is **20<sup>th</sup> March 2017.**

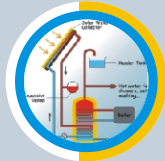
**Selection Procedure :** First Come, First basis.  
Performance characteristics of Solar PV module



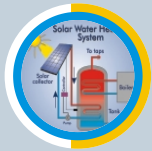
**SET  
2017**



**Patron :**  
**Dr. Umesh Gautam**  
Chancellor, Invertis University



**Advisors :**  
**Prof. Jagdish Rai**, Vice Chancellor  
**Prof. Y.D.S. Arya**, Pro-Vice Chancellor  
**Shri L.P. Mishra**, Director Administration  
**Prof. R.K. Shukla**, Dean Engineering  
**Dr. P.P. Singh**, Dean Student Welfare  
**Mr. Ajay Indian**, Chief Proctor  
**Mr. Ajitanshu Mishra**, HOD-ME



**Convener :**  
**Mr. Gyanendra Singh**  
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E-mail : gyanendra.s@invertis.org



**Co-Convener :**  
**Mon Prakash Upadhyay**  
Contact No. : +91-9997289635  
E-mail : mon.u@invertis.org



**Organizing Secretary :**  
**Mr. Arvind Kumar Madheshiya**  
Contact No. : +91-9456613369  
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Ph.: 0581-2460442, 2460443 | Fax: 0581-2460454

**Website : [www.invertisuniversity.ac.in](http://www.invertisuniversity.ac.in)**



Established by Govt. of U.P. u/s 2(f) of UGC Act, 1956 vide U.P. Act 22 of 2010.

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# SOLAR ENERGY TECHNOLOGY

March 23-24, 2017 (Thursday & Friday)



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**Eminent Speakers**



**Prof. Ranjana Jha**  
NSIT  
New Delhi



**Mr. Yogesh Kumar Singh**  
Senior Research Scientist  
NISE, Gurgaon



**Prof. G.N. Tiwari**  
IIT, New Delhi

  
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Organized By  
**Department of Mechanical & Electrical Engineering**  
**INVERTIS UNIVERSITY**

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*Registration Form*



1. Name: .....  
(In block letters)
2. Designation:.....
3. Department:.....
4. Field of specialization:.....
5. Institute/Organization Name:.....
6. Correspondence Address.....  
.....  
E-Mail:.....Mobile No.:.....
7. Highest Academic Qualification: .....

Place: .....

Date:.....

Signature of Applicant:  
\_\_\_\_\_

Signature of Head of Department  
(with date & seal)  
\_\_\_\_\_



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