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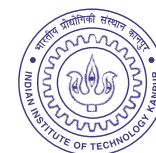
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Leh Valley: Abundance of Solar Resource



## International Conference on Energy Efficient LED Lighting & Solar Photovoltaic Systems

27<sup>th</sup> – 29<sup>th</sup> March 2014

Brochure of Events / Call for Papers



Organized by

Indian Institute of Technology Kanpur &  
Institution of Telecommunications & Electronics Engineers  
Kanpur Center

#### Convener

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Detailed information available at Conference web site

<http://www.iitk.ac.in/solarlighting/>  
Conference e-mail: [lighting@iitk.ac.in](mailto:lighting@iitk.ac.in)

## International Conference on Energy Efficient LED Lighting and Solar Photovoltaic Systems

### Motivation:

The usage of electricity is increasing day by day to meet our growing energy demands. Large part of it comes from technologies based on exhaustible & polluting fossil fuels like coal, gas etc. It is desired that share of clean, green, renewable and non-hazardous sources is increased to make our planet safe and inhabitable for its flower and fauna. Light Emitting Diodes (LEDs) and Solar cells are two such technologies having potentials of providing efficient lighting and electricity from renewable & inexhaustible source. LEDs and solar cells are closely related technologies and are in fact complementary to each other. One converts electricity to light while other converts light into electricity. LED street lightings sourced through Solar Photovoltaic Systems (SPV) are widely used. However, present usage of these technologies in overall electricity consumption is quite small. One of the important factors of its small share is high cost. Further research & development are required to make these technologies more efficient and affordable. Further innovations and investments in industry are desired to produce materials, develop processes and systems at lower cost & high numbers as to get benefit of economy of scale. Also, there is need to increase the general awareness of masses of long life, efficient LED lighting & PV systems for long run benefits. To address these issues, an **International Conference on Energy Efficient LED Lighting and Solar Photovoltaic Systems** is being organized at IIT Kanpur jointly by Indian Institute of Technology Kanpur and Institution of Electronics and Telecommunication Engineers Kanpur Center.

AT IITK, we have been doing research and development in both the technologies, LED Lighting & SPV. Besides R&D, IIT Kanpur has organized in past the National Conference on the Emerging Trends in the Photovoltaic Energy Generation and Utilization (NCETPEGU) in 27-29 March 2008, International Symposium on Photovoltaic Science & Technology (ISPST) on 13 Jan 2010 and a Seminar on Micro-solar Energy Generation & Utilization from 3-5 Sep 2011. These conferences/symposium/seminars have been quite successful in bringing together academics, scientists, industrialists on the same platform and providing students platform to present their work. We hope that the present international conference too will be tremendous success.

### Format of the Conference:

The present international conference will have format of tutorials on LED & PV systems by eminent experts, invited talks, oral, poster paper presentations, panel discussion, working model contest and exhibition of products. The conference is open to academics, universities, research establishments, industry and other interested ones having stakes in these technologies. The students will be awarded for their best performances in poster papers and working models.

### Topics:

The conference invites original technical papers that have not been previously published and are not currently under review for publication elsewhere. Suggested topics include, but are not limited to the following:

#### Solar Photovoltaic

Photovoltaic materials, devices, product & characterization.  
Silicon Photovoltaic technology, manufacturing – current status.  
High Efficiency III-V, Multi-junction solar Cells & concentrator  
Thin Film: CdTe, CIGS, Micro morph, a-Silicon etc.  
Emerging Technologies: Polymer, Grätzel, Bio, Nano particles/rods based Cells  
Building Integrated Photovoltaic.  
DC-DC and DC-AC converters & other BOS items.  
Grid connected and Off-grid PV systems – design and interfacing.  
Installation, System Integration, Data acquisition & monitoring and analysis.  
Economic, Regulatory & Policy issues related to PV.

#### LED Lighting

LED Materials, devices, products and characterization.  
LED Lighting –current status of usage, efficiency & economy.  
Inorganic LEDs Lighting – technology & manufacturing status in India Solar based LED lighting – economy & efficiency  
Emerging organic LED lighting – Technology status  
LED Drivers – design & production issues  
Luminaries - design & production issues  
Production, installation and policy issues

#### Poster Paper Presentation:

Poster papers on above topics are invited from students. Best two papers will be given certificate and cash prizes.

#### Working Model Contest:

LED lighting and Solar Photovoltaic systems are two emerging fields. Innovative ideas leading to design of useful and commercial viable products are coming in market. Certificate and cash prizes will be given to best working models. Conference assists students in purchase of electronic components if they have an innovative design.

### Tutorials on Important Topics:

Tutorials covering important topics in LED lighting and solar PV systems will be organized. Lectures will be given by experts in the fields. Certificates of attendance will be issued.

### Important Dates:

Event	Deadlines
Abstract Submission	January 02, 2014
Abstract Acceptance	January 16, 2014
Paper Submission	February 16, 2014
Conference Date	March 28 - 29, 2014
Tutorials	March 27, 2014

### Registration:

All the participants along with invited speakers need to register. Registration forms can be downloaded from the Conference site or can be obtained from Convener of the conference. The registration fee include boarding and lodging at IIT Kanpur. Those desirous of staying outside IITK campus will have to make their own arrangements. Good hotels are available in Kanpur city and most of these hotels have on-line booking facility.

All participants should send their registration form along with a demand draft, in favor of **LED Lighting & PV Systems**, payable at **State Bank of India (SBI), IIT Kanpur**. (Branch Code: 1161). The form and draft needs to be sent to **Dr. R.S. Anand, Department of Electrical Engineering, IIT Kanpur**.

### Conference

Category	Fee before Feb 06, 2014	Fee after Feb 06, 2014
Students	1000 INR	1250 INR
Academics	3000 INR	3750 INR
Industry	5000 INR	6250 INR

### Tutorials

Category	Tutorial Fee
Students	500 INR
Others	1000 INR