

Background

CSIR-National Physical Laboratory (NPL), New Delhi is organizing the 17th International Conference on Thin Films (ICTF-17) in collaboration of Indian Vacuum Society during 13-17 November 2017 at NPL, New Delhi. This is an important series of conference supported by "International Union for Vacuum Science & Technology Application (IUVSTA) which is organized after every three years.

Thin film solar cells represent an alternative to single crystalline silicon for conversion of solar to electrical energy. Emerging solutions include organic photovoltaics, CIGS, CdTe and nanostructured inorganic semiconductors. In connection with ICTF-17, a pre-conference one day workshop is also being organized focussing on "Thin Film Solar Cells" This workshop will train the participants in the area of thin film solar energy conversion and the in device design to have better understanding as well as to further development in this area in their respective institute. The participants will have future opportunities for collaborations

General Format of the Workshop

The workshop will be conducted by invited guests from India & abroad and scientists from CSIR-NPL. In the first part of the course, participants will be introduced to the fundamentals, fabrication and applications of thin film solar cells. In the second part, hands-on training of fabrication and characterization of thin film solar cells will be provided.

Workshop Coordinator

Dr. Vinay Gupta
(Senior Scientist, NPL)

Workshop Committee

Dr. S. Kumar
(Principal Scientist, NPL)
Dr. S. N. Sharma
(Principal Scientist, NPL)
Dr. C. K. Suman
(Scientist, NPL)
Dr. J. P. Tiwari
(Senior Scientist, NPL)

DATES TO REMEMBER

Last day of registration : 15.10.2017

REGISTRATION FEE

1500 Rs/1000 Rs

Contact Details

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17th International Conference on Thin Films-2017 (ICTF-17)

CSIR-National Physical Laboratory



A Pre-Conference Workshop

on Thin Film Solar Cells

13 November, 2017



CSIR-NPL



The Lecture Topics will include:

- ☑ Overview of thin film solar cells
- ☑ Fundamentals of thin film solar cells
- ☑ Processing methods of thin film solar cells
- ☑ Device architectures of thin film solar cells
- ☑ Characterization of thin film solar cells

Laboratory sessions:

Hands-on training of

- ☑ Solar cell fabrication in the Inert atmosphere glove box
- ☑ Solar cell I-V characterization in solar simulator and calculations of solar cell efficiency.
- ☑ Discussion and clean-room visit with training

Selection Criteria for Academic Participants:

Preference will be given to the academic participants intending to develop semiconductor devices and solar cells. Ph.D. students, M. Sc. And M. Tech. Students and Assistant Professors working in semiconductor devices and solar cells or closely related areas.

Fee and Expenses during the Course:

The registration fee for the workshop is 1500 INR. Participants are encouraged to register for ICTF-2017 main conference and take the opportunity to interact with renowned speakers from India and world and also get 500 INR discount on registration. Participants need to register and pay the registration fee at,

<http://www.ictf2017.in/registration.html>

State-of-the art facilities for hands-on training at NPL



Inert glove-box with cryo based vacuum



Clean-room facility (Up to Class-100)



Solar cell fabrication

PROGRAM

08.30	Registration
09.10	Welcome address
09.20	Introduction
09.30	Overview of Thin Film Solar Cells
10.30	Fundamentals of thin film solar cells
11.30	Coffee break
12.00	Solar cell fabrication and characterization Metrology
13.00	Lunch
14.00-17.00	Hands-on training in Labs
14.00	Solar cell fabrication and characterization
16.00	Solar clean room and various other facilities visits
17.00	Speakers-participants interaction & Certificate distribution