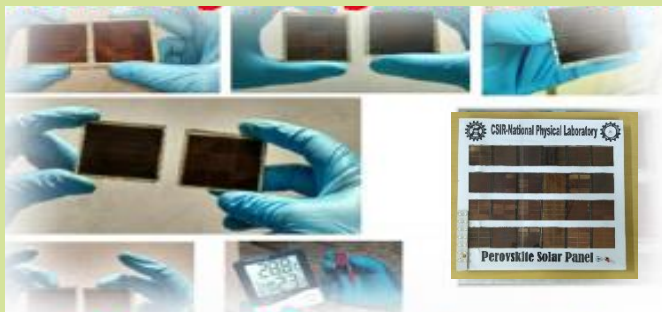


**Short Term Course  
on  
Organic Photovoltaics & Electronics Technology  
2018 (OPET 2018)  
6<sup>th</sup> - 10<sup>th</sup> August, 2018**



Organized by  
*Flexible Organic Energy Devices Section*  
CSIR-National Physical Laboratory, New Delhi-12  
[www.nplindia.org](http://www.nplindia.org)



**OBJECTIVE OF THE COURSE**

Flexible Organic Energy Devices Section, CSIR-National Physical Laboratory is conducting 5-Day Short-Term Course on " Organic Photovoltaics & Electronics Technology 2018(OPET 2018) during August 6-10, 2018 at NPL campus. The main emphasis of the course will be the Design Optimization of organic/Perovskite PVs. and Process development for low-cost flexible organic/perovskite solar device. This programme is an initiative to train the researchers working in the field of Photovoltaics technology. The current workshop is a follow-up of our first initiative OPET 2017 which was conducted successfully last year and was highly appreciated.

In this course on perovskite/OPV solar cells technology candidate will learn about the importance of perovskite/OPV solar cells. They will be exposed to the understanding of the physics underlying Perovskite/OPV devices: from material properties to device physics. They will learn about perovskite/ OPV materials, their properties, processing of perovskite/OPV materials, preparation of perovskite/OPV solar cells and their characterization. They will also get hands on training on the handling and processing of perovskite/OPV materials and solar cells.

Candidate will get a chance to operate the fabrication tools and make these solar cells on their own. Candidate will also learn a variety of PV-related characterization techniques, including Ultrafast Transient Absorption Spectroscopy, Time-resolved Photoluminescence (PL) & PL Impedance Spectroscopies and more.

**Course Contents:**

- ✓ **Clean Room & Fab Lab Protocols**
- ✓ General Background of organic semiconductor devices
- ✓ General Background on PVs
- ✓ Introduction to Perovskites Semiconductors
- ✓ Charge Generation in Perovskite Semiconductors
- ✓ Materials Processing for Perovskite Solar cells
- ✓ Characterization Techniques (Basics to advance)
- ✓ Design Optimization of organic/Perovskite PVs
- ✓ Process development for low-cost flexible organic/perovskite solar device
- ✓ **Hands-on training on Device Fabrication for at least 40 hrs.**

**Registration Details:**

There are limited numbers of seats for the course. Please fill the online registration form available on our website. Once your profile has been approved by the course coordinators, (you will receive a mail regarding the same), you need to send the hard copy of completed Registration Form, along with the fees to the address given below. The fees can be paid online (details given below) or by demand draft in favour of "**Director NPL**".

**Course Fee:** The course fee will be as follows:

Indian Participants: Rs.10,000/-

Participants from SAARC Countries: USD 400

Other Foreign Participants: USD 800

**IMPORTANT DATES**

Deadline for submitting the application: 05<sup>th</sup> July 2018

Intimation Regarding Acceptance: 10<sup>th</sup> July 2018

