

Three-day CEP Short Term course

On

**Solar PV Modules and System Testing and
Characterization**

26th - 28th November, 2014

Venue:-

**VMCC Lecture Hall,
Room No. 31, 3rd Floor,
IIT Bombay**

Course Coordinators

Prof. Pratibha Sharma

Prof. B.M. Arora

Prof. K.L. Narasimhan



National Centre for Photovoltaic Research and Education

Indian Institute of Technology, Bombay

Program Schedule

1st Day - 26th Nov, 2014

Time	Title	Speaker
8.30 am- 9.30 am	Course registration / Breakfast	
9.30 am - 10.15 am	Program Overview and Indian Scenario	Prof. J.M. Vasi (IIT Bombay)
10.15 am - 11.30 am	PV Modules Technology Overview	Prof. C.S.Solanki (IIT Bombay)
11.30 am - 12.00 pm	Tea Break	
12.00 pm - 1.00 pm	Solar PV Modules Manufacturing and Testing	Mr. Anupam Sharma (Webel Solar)
1.00 pm - 2.00 pm	Lunch Break	
2.00 pm - 3.00 pm	PV Module Qualification Testing and Certification	Dr. Rajesh Kumar (NISE)
3.00 pm - 4.00 pm	Solar PV Module Reliability and Durability Evaluations	Prof. G. Tamizhmani (Arizona State University)
4.00pm - 4.30pm	Tea Break	
4:30 pm - 5:30 pm	PV Module Outdoor Performance Testing	Dr. O.S. Sastry (NISE)
NETWORKING DINNER		

2nd Day - 27

Time	Title	Speaker
8.30 am - 9.30 am	Breakfast	
9.30 am - 10.30 am	Mechanisms of Potential and Light Induced Degradation in PV Modules	Prof. Anil Kottantharayil (IIT Bombay)
10.30 am - 11.30 am	Solar PV Modules Optical Characterization	Prof. B. M. Arora (IIT Bombay)
11.30 am - 12.00 pm	Tea Break	
12.00 pm - 1.00 pm	Solar PV Module Field Performance Testing-Methodology and Equipment	Mr. Jim John (IIT Bombay)
1.00pm- 2.00 pm	Lunch Break	
2.00 pm - 3.00 pm	Solar Radiation and Weather Monitoring	Dr. G. Giridhar (NIWE)
3.00 pm - 4.00 pm	Solar Module Test Lab Visit	Mr. Firoz Ansari and other PV Module Group students (IIT Bombay)
4.00 pm - 4.30 pm	Tea Break	
4.30 pm - 5.30 pm	Solar Module Field Test Station Visit	Mr. Jim John and other PV Module Group students (IIT Bombay)

3rd Day - 28th Nov, 2014

Time	Title	Speaker
8.30a.m- 9.30 am	Breakfast	
9.30 am – 10.30 am	Charge Controller and Inverter Testing Basics	Prof. B.G. Fernandes (IIT Bombay)
10.30 am -11.30 am	Battery and Charge Controller Testing and Characterization	Mr. Brajesh Sinha (HBL)
11.30 am- 12.00 pm	Tea Break	
12.00 am – 1.00pm	Inverter and BoS Testing and Characterisation	Mr. Ajay Deepak (SMA)
1.00 pm – 2.00 pm	Lunch Break	
2.00 pm –3.00 pm	PV System Performance Testing and Characterisation	Mr. Vaman Kuber (IIT Bombay)
3.00 pm – 3.30 pm	1MW PV Plant Visit (VMCC Building Terrace)	Mr.Vaman Kuber, Mr. B. K. Sahoo, Mr. Firoz Ansari, Mr. Jim John (IIT Bombay), Mr. Niketan Shitole,Mr. Chetan Bane(Mahindra EPC)
3.30 pm – 4.00 pm	1MW PV Plant SCADA Demonstartion (VMCC Lecture Room)	Mr. Vaman Kuber, Mr. B. K. Sahoo, Mr. Firoz Ansari, Mr. Jim John (IIT Bombay), Mr. Niketan Shitole, Mr. Chetan Bane (Mahindra EPC)
4.00pm- 4.30 pm	Tea Break	
4.30 pm – 5.30 pm	Closing-Feedback and Certificate Distribution	Prof. B. M. Arora, Prof. K. L. Narasimhan, Mr.

		Vaman Kuber (IIT Bombay)
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