

Indian Nanoelectronics Users' Programme – Idea to Innovation (INUP- i2i) (MeitY)

3rd Hands-on Training: Characterization of Solar Cells

5th – 10th Dec., 2022

Workshop Coordinator: Prof. Vamsi Krishna Komarala
Nanoscale Research Facility, Indian Institute of Technology Delhi

Date	Time (in hours)	Session (Day 1)	Venue
05-12-2022	14:30 – 15:00	Registration (Shreshtha & Tulja)	Dept. of Energy Science, Committee Room Block 5, R.No.343
	15:00 – 15:30	Welcome address and Introduction to INUP-i2i & Hands-on training program Prof. Neeraj Khare/Prof. Vamsi K. Komarala	
		Theme: Lecture	
05-12-2022	15:30 – 17:30	How Solar Cell Works: Basic Concepts and Material Parameters Prof. Vamsi K. Komarala	Dept. of Energy Science, Committee Room Block 5, R.No.343



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Date	Time (in hours)	Session (Day 2)	Venue
Theme: Lecture			
06-12-2022	10:00– 13:00	Understanding photovoltaic parameters of solar cells Prof. Vamsi K Komarala	Dept. of Energy Science, Committee Room Block 5, R.No.343
Lunch Break (13:00 – 14:30)			Faculty Guest House (Gulmohar)
Theme: Lab Session			
06-12-2022	14:30 – 17:00	Optical properties estimation and measurements (Shreshtha, Ashutosh & Alam)	Dept. of Energy Science, Block 5, Lab. No.335

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Date	Time (in hours)	Session (Day 3)	Venue
Theme: Lecture			
07-12-2022	10:00 – 12:30	How to calculate number of electrons collected to the number of photons incident? Prof. Vamsi K. Komarala	Dept. of Energy Science, Committee Room Block 5, R.No.343
Lunch Break (13:00 – 14:30)			Faculty Guest House (Gulmohar)
07-12-2022	14:30 – 17:00	Surface Photovoltage Measurement/NRF Video (Shreshtha & Alam)/(Amish, Mohit, Shiv)	NRF Characterization Lab, Block 6

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Date	Time (in hours)	Session (Day 4)	Venue
Theme: Lecture			
08-12-2022	10:00 – 12:30	Estimation of electrical losses in solar cells Prof. Vamsi K. Komarala	Dept. of Energy Science, Committee Room Block 5, R.No.343
Lunch Break (13:00 – 14:30)			Faculty Guest House (Gulmohar)
Theme: Lab Session			
08-12-2022	14:30 – 17:00	Quantum Efficiency analysis of solar cells (Shreshtha & Ashutosh)	Dept. of Energy Science, Block 5, Lab. No.335

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Date	Time (in hours)	Session (Day 5)	Venue
Theme: Lecture			
09-12-2022	10:00 – 12:00	Review on 'Solar to chemical to electrical' conversion processes, required characterization techniques Prof. Vamsi K. Komarala	Dept. of Energy Science, Committee Room Block 5, R.No.343
09-12-2022	12:00 – 13:00	Photoelectrochemical Solar Cell Prof. Neeraj Khare/Mohit	
Lunch Break (13:00 – 14:30)			Faculty Guest House (Gulmohar)
Theme: Lecture			
09-12-2022	14:30 – 17:00	Electrical characterization of solar cells (Shreshtha & Alam)	Dept. of Energy Science, Block 5, Lab. No.335



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Date	Time (in hours)	Session (Day 6)	Venue
Theme: Lecture			
10-12-2022	10:00 – 13:00	IIT Delhi Industry Day Visit	Lecture Hall Complex
Lunch Break (13:00 – 14:30)			Faculty Guest House (Gulmohar)
10-12-2022	14:30 – 16:30	Feedback and Concluding Remarks (Prof. Prashant Mishra/Prof. Neeraj Khare/Prof. Vamsi Krishna K.	Faculty Guest House
Tea (16:30 PM onwards)			