

# Fundamentals and Characterization of Solar Cells (FUNSOL-2019)

February 19 - 23, 2019 at IIT Kanpur

Venue: PBCEC, Visitor's Hostel

	9.30-11.00	11.30-1.00	1.00-2.00	2.00-3.30	4.00-5.30
Day 1	<ul style="list-style-type: none"> <li>Inauguration (9:00 hrs)</li> <li>Introduction to the Course</li> <li>Semiconductors</li> </ul>	Semiconductor Physics <ul style="list-style-type: none"> <li>Transport</li> <li>Generation</li> <li>Recombination</li> </ul>	Lunch	P-N Junction Diode and Analysis	Electrical Measurements <ul style="list-style-type: none"> <li>AC Hall</li> <li>Four Probe</li> </ul>
Day 2	<ul style="list-style-type: none"> <li>Metal – Semiconductor Junctions</li> <li>Materials Characterization</li> <li>Manufacturing Processes: An Overview</li> </ul>			Device fabrication demonstration and device measurements	
Day 3	Solar Cell Fundamentals (Device Characteristics)	Device Characterization		Device simulation	
Day 4	First Generation Solar Cells	Second Generation Solar Cells		Device fabrication demonstration and device measurements	
Day 5	Second And Third Generation Solar Cells	Third Generation Solar Cells		<ul style="list-style-type: none"> <li>Module Design</li> <li>Balance of Systems</li> <li>Cleaning of Solar Modules</li> </ul>	

Tea Breaks: 30 mins each (one each in forenoon and afternoon)

Course dinner: Friday, 22<sup>nd</sup> February 2019 (venue: to be announced)