Centre for Advanced Studies

(An Autonomous Uttar Pradesh State Government Research Driven Institution), Dr. A. P. J. Abdul Kalam Technical University, Lucknow, Uttar Pradesh INDIA

Institute website: www.cas.res.in

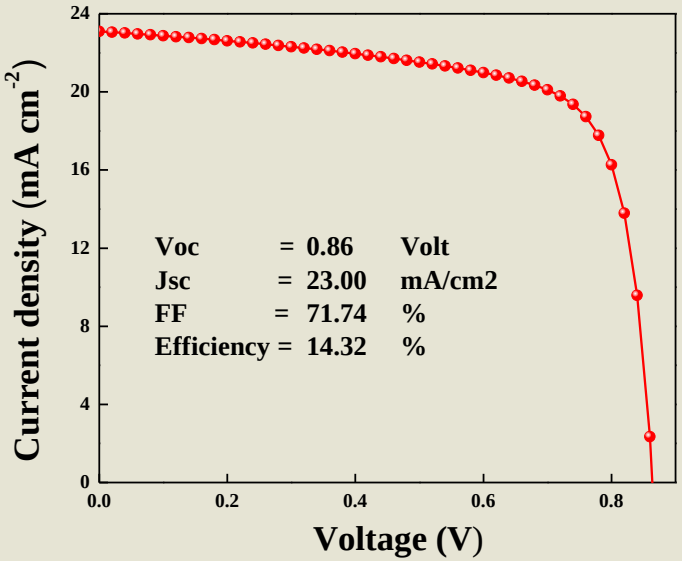
Six days online course on

Next Generation Solar Cells: Fundamentals to Fabrication (Theory, Simulation and Experiments)

13th-18th July 2020

Target Audience

- Students at all levels (B. Tech./M. Sc./M. Tech./Ph. D) or Faculty from academic, research and technical institutions.
- Executives, engineers and researchers from manufacturing, service and government organizations including R & D laboratories.



FACULTIES

Dr. Brajendra Singh Sengar
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Dr. Narendra Singh
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Last Date of Registration:
11th July 2020

Link of the Registration:
https://forms.gle/uVeojsYjLpa3hZBQ8

Fees:
Students and Faculties : INR 1000
Industry/Research Organizations: INR 5000

COURSE OUTLINE

Introduction to the physics of semiconductor devices (band diagram, optical absorption, generation-recombination, transport, p-n junction diode characteristics)

Theory of solar cells (discussion on different parameters of photovoltaics devices, Short circuit current density, open circuit voltage, Fill Factor)

Advance Concept in solar cells
(Different generations solar cell and new concept in photovoltaics industry)

Fabrication of solar cells
(Sputtering, Chemical deposition techniques and other techniques for material deposition)

Characterization of solar cells
(Quantum efficiency, Solar Simulator demonstration, etc.)

Simulation of solar cells
(Hands on activity on SCAPS Simulator tool)