Green Energy Harvesting and Storage: Materials, Methods and Applications

November 16 – 22, 2022

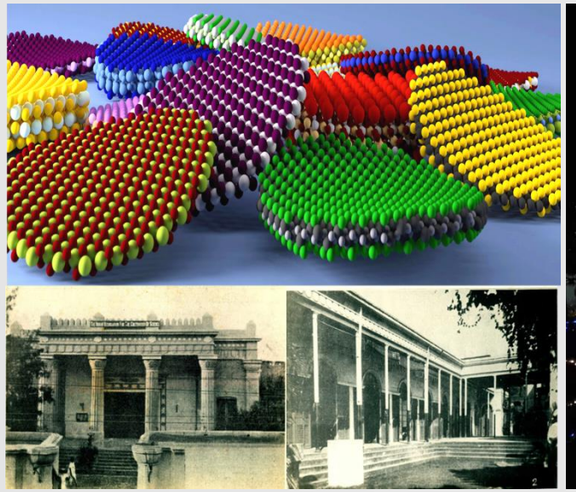
Invited Speakers

Prof. D D Sarma (IISc Bangalore)	**Prof. Amitava Patra** (INST Mohali)	**Prof. Indra Das Gupta** (IACS Kolkata
S M Shivaprasad (JNCASR Bangalore)	**Prof. Abhishek De** (IACS Kolkata)	**Prof. Sombrata Acharya** (IACS Kolkata)
Prof. Narayan Pradhan (IACS Kolkata)	**Prof. Sabastine Peter** (JNCASR Bangalore)	**Prof. Vivek Palitosher** (TIFR Mumbai)
Prof. Ayan Dutta (IACS Kolkata)	**Prof. Arnab Dutta** **(IIT Mumbai)**	**Prof. Mukesh Kumar** (IIT Ropar)
Prof. C S Sharma (IIT Hyderabad)	**Prof. Ritu Gupta** (IIT - Jodhpur)	**Dr. Ramendra S De** (INST Mohali)
Dr. Y. S. Chaudhary (CSIR-IMMT)	**Dr. Mahesh Kumar** (CSIR-NPL)	**Dr. Shubhdeep Dutta** (IACS Kolkata)
Dr. Urmimala Maitra (IACS Kolkata)	**Dr. KDM Rao** (IACS Kolkata)	**Dr. Praveen Kumar** (IACS Kolkata)

Organizers

Convener:
Dr. Praveen Kumar

Organizing Team
Prof. Narayan Pradhan
Prof. Ayan Dutta
Dr. Subhdeep Dutta
Dr. KDM Rao
Dr. Urmimala Maitra



Important Dates:
Registration opens: October 15, 2022
last date for registration: October 28, 2022.
Display of shortlisted candidates: October 31, 2022

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Raman Hall,
Indian Association for the Cultivation of Science, Kolkata

ABOUT KARYASHALA:

Karyashala is a noble endeavour of Government of India under Accelerate Vigyan Scheme to improve research productivity of promising M.Tech. and Ph.D. students from universities and colleges through high-end workshops on specific themes. These events are sponsored by Science and Engineering Board (SERB). These workshops aim to equip the participants with specialized research skills. The workshops are facilitated at institutions of national importance. This High End Workshop on Green Energy Harvesting and Storage: Materials, Methods and Applications by Indian Association for the Cultivation of Science, Kolkata. The present event will be conducted in Hybrid mode at the Raman Hall, Indian Association for the Cultivation of Science (IACS), Kolkata during November 16-22, 2022.

COURSE DETAILS

This workshop is designed for master's and PhD students who are working in the area of materials science and looking at their application for energy harvesting and storage devices. In this workshop, we will address and provide training on some of the fundamental and technological issues related to various materials, composites and heterostructures. We will also look at the theoretical aspects of materials designing/modeling to understand various electronic, optical, chemical and structural properties. We will have a few engaging sessions on green energy harvesting (hydrogen generation, CO_2 reduction, and photodetectors) and storage (supercapacitors, batteries) Devices. We will also concisely provide hands-on training to the young PhD and master students working in the area of energy harvesting and storage devices.

List of Sessions:

- Technical Session
- Materials Synthesis
- Nanomaterials for Energy applications
- Light Harvesting Materials
- Perovskites for Energy applications
- Catalysis CO_2 reduction
- Photoelectrochemical H_2 Generation
- Photovoltaics Applications
- Emerging Materials for Energy Harvesting
- Emerging Materials
- Energy Storage Applications
- Closing and feedback Session: Last Day

Lab Visit and Hands-on:

- Materials Synthesis and Characterizations
- Energy harvesting and Storage Device fabrication

Who Can Attend:

Karyashala is open to postgraduate/PhD students from all Institutes, Colleges and Universities in India; preference will be given to the students having interest towards understanding Material's Science for energy harvesting and storage applications. Total numbers of seats are limited to 25. **There is no registration fees.**

How To Apply:

Register through google form link:

https://docs.google.com/forms/d/e/1FAIpQLSd2CF3AuAdLHedU04_kBGbmlFVdT8peYT3ZNytUEjV6bgIZdg/viewform?usp=sf_link

or by scanning the QR code

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