



ACCELERATE
विद्यया



High-End Workshop on Advanced Energy Materials for Next Generation Solar Cells

(Under the KARYASHALA Scheme - A SERB initiative)

from May 27th – June 2nd, 2024



About the Institute: IIITDM Jabalpur is an Institute of National Importance established by the Govt. of India in 2005 to prepare trained and high skilled professionals in the area of IT enabled design and manufacturing. Since its inception IIITDM Jabalpur has been playing a vital role in producing quality human resources for contribution in India's mission on inclusive and sustainable growth. The institute conducts educational and research programs leading to the degree of (B.Tech.), (M.Tech.), (B. Des.), (M. Des.) and (PhD.) in various subject domains.

About Karyashala and High-End workshop: KARYASHALA is an effort of DST SERB under Accelerate Vigyan (AV) Scheme' to improve the research efficiency of promising PG and PhD students from university and colleges through the High-End Workshops on specific themes. This programme aims to provide opportunities to acquire specialized research skills. This high-end workshop focuses on providing a comprehensive understanding of the conversion and conservation of solar energy using advanced materials. The workshop is designed for final year UG, PG and research students of colleges who wish to have a firm grasp on the fundamentals of emerging solar cell technologies. This workshop spread over seven days consisting of series of lectures and hands-on-training of 40 hours approx.



Scope of the workshop: The broad contents of the workshop are listed as below:

- Emerging Trends and Potential in Renewable Energy Sectors.
- Emerging Photovoltaics materials. thin-film solar cells, perovskite solar cells, kesterite solar cells, graphene etc.
- Needs of Direct-gap, Thin-film Photovoltaic Technologies, Concentrator Cell Technology
- Different assemblies of solar cells including Bi-layer solar cells, Tandem solar cells, Nanostructured solar cells.
- Organic Photovoltaic Structures, Third-generation OPV
- AI & ML techniques to explore new materials, Database Infrastructure Needs in AI and Energy Materials R&D
- Expansion of the Energy Materials Discovery and Process Design
- Experimentation for Energy Materials Design and Processing, Commercialization of perovskite solar cells.



Resource Persons: Eminent experts from IIT, NITs DRDO labs and Industry will be delivering the lectures during the workshops.

Who Can Attend: Karyashala is open to research scholars/ postgraduate students from all Institutes, Colleges and Universities who wish to develop understanding in latest technologies in photovoltaics and gain hands-on expertise.

How to Register: Click on below link to fill the registration form
<https://forms.gle/GBHbCcDRxhh8zkGu5>

OR Scan the QR code.

**No
Registration
Fee**



Important Dates

Registration open: April 01, 2024

Registration Ends: May 20, 2024

List of Shortlisted applicants: May 21, 2024

Workshop dates: May 27 – June 02, 2024

Free accommodation and food will be provided.

Organizing Committee

Chief Patron

Prof. Bhartendu K. Singh (Director, IIITDM Jabalpur)

Patron

Prof. Pritee Khanna (Dean RSPC, IIITDM Jabalpur)

Coordinator

Dr. Pankaj Sharma (Assistant Professor, ECE)

For Enquiries contact: 9893805618, pankaj.sharma@iiitdmj.ac.in



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Endorsement cum No Objection Certificate from the Head of the Department/ Thesis Supervisor
(To be given on University/ Institute/ College Letter head)

This is to certify that:

1. Mr. / Ms. / Mrs..... , is a bonafide student of our University /Institute / College and will assume full responsibility for actively participating in the **High-End Workshop on Advanced Energy Materials for Next Generation Solar Cells** ” sponsored by SERB-DST under the Accelerate Vigyan Scheme, scheduled from May 27 - June 2 2023 organized by Department of ECE IIITDM Jabalpur.
2. The Applicant is a Full-time / part-time student of our University/ Institute/ College and enrolled in M Tech / M.S. / PhD Programme in Department.
3. The candidate has secured % / CGPA / CPI till date (if applicable).
4. The candidate is currently carrying out research/project as a part of his/her course curriculum and has completed the core courses of the program.
5. The University/ Institute/ College also endorses the conduct of the applicant to be of highest order who bears a good moral character.
6. The University/ Institute/ College has “No-Objection” for the candidate participation during the above said period.
7. The candidate, if selected for participation, shall be duly permitted to participate in the High-End Workshop via physical mode. The University/ Institute/ College may provide the necessary facilitation needed for this purpose.

Date:

Place:

Signature and Seal with name
(Head of the Department/ Thesis Supervisor)