



INDIAN INSTITUTE OF TECHNOLOGY INDORE

Short term course on “Characterization of Materials for Renewable and Sustainable Energy”

March 4 - 9, 2019

SPONSORED BY: TEQIP-III

Dr. Parasharam Shirage (Associate Professor, MEMS, IIT Indore)

Dr. Kiran Bala (Associate Professor, BSBE, IIT Indore)

Certificate

Participants who successfully complete the course will be awarded a certificate.

Venue

The course will be conducted at IIT Indore premises.

Registration

There is **no fee for participants from TEQIP sponsored colleges**. The nominations along with the registration forms must be sent through their coordinator to the address below. Email confirmation in advance is suggested.

For other participants, the fee (per participant) is **Rs. 8,000/-** (Eight Thousand Only) **for professionals** and **Rs. 4,000** (Four Thousand Only) **for students**.

Registration fee includes course material, tea & working lunches.

MODE OF PAYMENT: Through DD drawn in favor of “**Registrar, IIT Indore**” payable at Indore, or through online payment/bank transfer (Bank: State Bank of India; Branch: Khandwa Road, Indore; Account number: 31702151577; IFS Code: SBIN0011779).

Evidence of payment should be emailed in advance to confirm the participation.

Accommodation

Accommodation may be available at hostels of IIT Indore on payment basis. Candidates can check the availability at hostel@iiti.ac.in and 0732 4306583.

Contact Person

Dr. Parasharam Shirage

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Course Objectives

Growing energy needs of the country require increased efforts on emerging materials and technologies which concentrate on energy generation, energy harvesting, energy conversion and energy storage. This workshop will provide a working knowledge of energy materials (Solar cells, Piezoelectric, Biofuels, etc.) characterization techniques and how these methods are used to characterize material properties. General concepts and specific examples will be used to illustrate how these methods are employed to characterize the materials. Participants will get advance practical knowledge of the measurement techniques along with the tools to get the most out of their instrumentation. The attendees will also acquire knowledge on each testing technique to differentiate energy materials and ultimately predict and optimize product performance. This practical workshop is geared for both experienced users that want to better understand the measurement technologies, and those new to material characterizations.

Participants

The course is designed for

- Faculty members, Scientists and Engineers in Mechanical / Production / Metallurgy / Materials / Physics / Chemistry/ Biotechnology etc.
- Professionals involved in Energy sectors/ Materials / Metals industries.
- Research scholars and students in the relevant fields.

Course Modules

Identification of materials in context to Solar cells, Piezoelectric and Biofuels, etc.

Potential Growth Techniques

Materials characterization using X-ray diffraction, Optical and Scanning Electron Microscopes, Uv-Vis, FTIR, Gas Chromatography, Electrochemical, Solar cell I-V, Raman Spectroscopy, Hall effect, etc.

Course Coordinators

Registration Form:

1.	Name of the Person:	
2.	Designation:	
3.	Academic Qualification:	
4.	Name of Institution / Organization:	
5.	Address for Communication:	
6.	Phone:	
7.	Email:	
8.	Online Payment Details: Link for the payment through <u>Paytm Portal</u> is available on IIT Indore website	
	• Amount:	
	• Online-Payment Ref. No.:	
	• Transaction Date:	
	• Bank etc. Details:	
	Evidence of payment should be emailed in advance to confirm the participation.	
Place:		Date:
Signature of Participant:		
Approval / Permission from Institution / Organization:		
We approve the above application as a participant for the above short course, which is being organized by IIT Indore on March 4-9, 2019.		
Authorized Signatory		Institute/Organization Seal

Note: To confirm the participation in advance, scan copy of the filled form can be emailed to pms Shirage@iiti.ac.in