Department of Metallurgical Engineering and Materials Science Indian Institute of Technology Indore

Advertisement for Admission to Ph.D. Program

IITI/Acad/PhD Admissions/2024-25

January 28, 2025

IIT Indore invites applications from highly motivated and research-oriented students for admission to the Ph.D. Program in the **Department of Metallurgical Engineering and Materials Science** under the following research areas:

Materials Science	Metallurgical Engineering
Energy Storage Materials	Mechanical Metallurgy
Energy Conversion materials	Physical Metallurgy
Nanomaterials Synthesis and Processing	• Powder Metallurgy
Environmental and Functional Materials	Corrosion and Surface Engineering
Soft Materials	• Thermodynamics and Diffusion kinetics
Thin Films and Electronic Devices	Recycling of Metallic Waste/ E-waste
• Electrocatalysis (HER, OER, CO ₂ RR)	• Welding Engineering and Additive Manufacturing
Computational Materials: Modeling	Alloy Design
and Simulations	

ONLY FOR FELLOWSHIP AWARDEE (UGC/CSIR-JRF qualification, DST Inspire **OR** Equivalent Fellowship)

Minimum Educational Qualifications (MEQs) and Qualifying Examination (QE) for Indian applicants	MinimumEducationalQualifications(MEQs)Qualifying Examination(QE)International applicants
Masters' degree (M.Tech. or M.E. or MS) in <i>Metallurgy/</i> <i>Materials Science and Engineering/ Mechanical/</i> <i>Manufacturing/ Production Engineering/ Nanotechnology/</i> <i>Engineering Science/ Engineering Physics/Ceramics</i> <i>Engineering/ Electronics/ Chemical Engineering/Energy</i> <i>Science and Engineering/ Related Specializations</i> (with first division as defined by the awarding Institute/ University) AND should be fellowship awardee from UGC/CSIR-JRF qualification, DST Inspire or Equivalent Fellowship.	MEQ: Masters' degree in the relevant department (with first division as defined by the awarding Institute/ University)
OR B.E./ B.Tech. degree in <i>Metallurgy/ Materials Science and</i> <i>Engineering/ Mechanical/ Manufacturing/ Production</i> <i>Engineering/ Nanotechnology/ Engineering Science/</i> <i>Engineering Physics/Ceramics Engineering/ Electronics/</i> <i>Chemical Engineering/Energy Science and Engineering/</i> <i>Related Specializations</i> (with first division as defined by the awarding Institute/ University) AND should be fellowship awardee from UGC/CSIR-JRF qualification, DST Inspire or Equivalent Fellowship.	QE: Valid TOEFL/IELTS OR equivalent qualification
OR	

Minimum Educational Qualifications (MEQs) and Qualifying Examination:

Masters' degree (M.Sc.) in Chemistry/ Physics/ Materials	
Science/ Electronics/ Nanoscience and Technology/Forensic	
Science/Related Specializations (with first division as defined	
by the awarding Institute/ University) AND should be	
fellowship awardee from UGC/CSIR-JRF, DST Inspire or	
Equivalent Fellowship.	

Time Schedule of PhD admission:

Cut-off date of online application through	February 28, 2025
https://academic.iiti.ac.in:8443/nregistration.jsp	
(for both National and International applicants)	
Tentative date written test and interview (in- March 24, 2025	
person)	

(Please refer to the main page on our academic portal Linkhttps://academic.iiti.ac.in/phdadvt.php for more details)

About the Department of Metallurgical Engineering and Materials Science (MEMS):

The Department of MEMS has been functioning as a full-fledged department since 2016. The department's emphasis is to promote multidisciplinary research to find sustainable solutions to realworld problems through its cutting-edge research on all materials science and engineering frontiers. Currently, four academic programs are running in the department, namely, B.Tech. in MEMS, M.Tech. in Materials Science and Engineering, & M.Tech. in Metallurgical Engineering, and PhD. The department is actively engaged in the forefront areas of materials research and metallurgy to contribute toward new technological developments. The following are the main research domains in the department for PhD students:

- Alloy design, development and deformation
- Electronic and Photonic Materials
- Energy and Environmental Materials
- Materials Degradation & Surface Engineering
- Nanomaterials & Soft Materials
- Strategic Materials

To support the above research activity, the Department of MEMS houses several state-of-the-art processing and characterization facilities (for details, please visit the department webpage: https://mems.iiti.ac.in/resources).

Candidates are advised to visit <u>http://mems.iiti.ac.in/Faculty.html</u> to learn more about the research areas of the faculty members. Candidates can also search for faculty details using the following links.

Faculty	Google Scholar Link/Webpage
Prof. Abhijit Ghosh	https://scholar.google.co.in/citations?user=P9nZOBsAAAAJ&hl=en
Prof. Ajay Kumar Kushwaha	https://iiti.ac.in/people/~ajaykk/
Prof. Chandan Halder	https://scholar.google.com/citations?user=Jc4fgVQAAAAJ&hl=en&oi=sra
Prof. Dhirendra K. Rai	http://people.iiti.ac.in/~dkr/
Prof. Dudekula Altaf Basha	https://scholar.google.com/citations?user=KQosI6YAAAAJ&hl=en

Prof. Eswara P. Korrimilli	https://sites.google.com/view/eswarprasad/home
Prof. Hemant Borkar	https://iiti.irins.org/profile/93801
Prof. Jayaprakash Murugesan	https://scholar.google.com/citations?user=QpLQQqsAAAAJ&hl=en&oi=sra
Prof. Khushubo Devi	https://scholar.google.com/citations?user=sCL9Zl4AAAAJ&hl=en
Prof. Mrigendra Dubey	https://drdubey.wixsite.com/iiti
Prof. Nisheeth Prasad	https://sites.google.com/iiti.ac.in/nisheeth/about-me?pli=1
Prof. Parasharam M. Shirage	https://iiti.ac.in/people/~pmshirage/
Prof. Ram Sajeevan Maurya	https://scholar.google.com/citations?hl=en&user=6f8zrTcAAAAJ&view_op=list_works&sortby=pubdate
Prof. Ranjith Kumar Poobalan	https://scholar.google.co.in/citations?user=iTe5x74AAAAJ&hl=en
Prof. Rupesh Shivaji Devan	https://rupesh76.wixsite.com/rupesh
Prof. Santosh S. Hosmani	https://sites.google.com/site/santoshhosa/
Prof. Sunil Kumar	https://iiti.ac.in/people/~sunil/
Prof. Sumanta Samal	https://iiti.ac.in/people/~sumanta/index.html
Prof. K. V. Vamsi	https://kvvamsi20.wixsite.com/vamsi
Prof. Vinod Kumar	https://www.iiti.ac.in/people/~vkt/
Prof. Vivek Verma	https://scholar.google.com/citations?user=EIT_W2YAAAAJ&hl=en&oi=sra

Instructions

1. All eligible candidates, fulfilling the minimum eligibility criteria, must apply online through the website (http://academic.iiti.ac.in:8080/nregistration.jsp).

2. After applying online, the applicants should take a printout of the application form and sign the same. The scanned copy of the signed application form and the supporting documents should be sent to Convener, DPGC, at e-mail id: dpgcmems@iiti.ac.in as a single pdf file attachment, at the latest by **one day before the interview date**.

a) Original documents will be verified at the time of admission as per Institute rules.

b) Candidates must arrange recommendation letters from at least two referees. Referees shall e-mail the reference letters directly to dpgcmems@iiti.ac.in one day before the interview date.

c) Application Fee: Please refer to the main page on our academic portal linkhttps://academic.iiti.ac.in/phdadvt.php

3. Please don't send any form or documents by post.

4. The interview call letter will be shared only with the shortlisted candidates.

5. No e-mail or communication, in any form, regarding the change of interview date, time, etc., will be entertained.

6. FA candidates are encouraged to apply.

7. Mere fulfillment of the minimum eligibility criterion does not entitle anyone to get selected in PhD program.