

**Department of Metallurgy Engineering and Materials Science
Indian Institute of Technology Indore**

Advertisement for Admission to Ph.D. Program for 2022-23 Autumn Semester

IITI/Acad/PhD Admissions/2022-23

April 21, 2022

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

Faculty	Code	Research Topic
Dr. Abhijit Ghosh	MM-01	Creep and crystallographic texture in Mg alloys
		Shape memory alloys
Dr. Ajay Kumar Kushwaha	MM-02	Nanomaterials for Sensors and electronic devices
		2D Materials and Composites for Water splitting to produce hydrogen
Dr. Dharendra K. Rai	MM-03	Energy Storage Materials (Batteries and Supercapacitors)
		Carbon Dioxide Capture and Conversion
Dr. Dudekula Altaf Basha	MM-04	Severe plastic deformation behaviour of magnesium alloys
		Development of rare earth free magnesium alloys
Dr. Eswara P. Korrimilli	MM-05	Mechanical and Metallurgical characterization of traditional iron monuments in central India
		High strain rate deformation and failure of armor ceramics
Dr. Hemant Borkar	MM-06	Investigation of mechanical properties, microstructure and texture of wrought Mg alloys and its composites
Dr. Jayaprakash Murugesan	MM-07	Fatigue and fretting fatigue behavior of advanced materials
		Advances in welding of dissimilar materials
Dr. Mrigendra Dubey	MM-08	Development of Soft Materials for electronic applications
		Luminescent materials for security applications
Dr. Parasharam M. Shirage	MM-09	Na-ion Batteries and Supercapacitors
		Solar cells
Dr. Ram Sajeevan Maurya	MM-10	Bulk metallic glasses and its composites
		Characterization and analysis of railway wheels disc, axles and other components
Dr. Rupesh Shivaji Devan	MM-11	Materials and thin film processing for supercapacitor/solar-cells/photocatalysis
		Hybrid materials for energy storage and conversion
Dr. Santosh S. Hosmani	MM-12	Microstructure and Properties of Surface Engineered Non-ferrous Alloys
		Microstructure and Properties of Surface Treated and Coated Ferrous Alloys

Dr. Sumanta Samal	MM-13	Development of microstructure –property-processing correlations for Ni-based superalloys.
		Magnetic properties of undercooled high entropy alloys (HEAs)
Dr. Sunil Kumar	MM-14	Na-ion Batteries
		All-Solid-State Lithium Batteries
Dr. Vinod Kumar	MM-15	Development and characterization of novel Cu-Pb-Sn based alloy coating
		Additive manufacturing of Al/Mg based alloys

Categories of admission (for Indian and International applicants): Please refer to the main PhD advertisement available at <https://academic.iiti.ac.in/phdadvt.php>

Candidates are advised to visit <http://mems.iiti.ac.in/Faculty.html> to learn more about the research areas of the faculty members.

Time Schedule of PhD admission:

Last date of online application through https://academic.iiti.ac.in:8443/nregistration.jsp (for both National and International applicants)	31st May 2022 (Tuesday)
Date of online written test and/or interview (for both National and International applicants)	07th and 8th June 2022 (Tuesday and Wednesday)

Minimum Educational Qualifications (MEQs) and Qualifying Examination:

Minimum Educational Qualifications (MEQs) and Qualifying Examination (QE) for Indian applicants	Minimum Educational Qualifications (MEQs) and Qualifying Examination (QE) for International applicants
Masters' degree in the Department of Engineering/ Technology (such as in Metallurgy/ Materials Science and Engineering/ Mechanical/ Manufacturing/ Production Engineering/ Nanotechnology/ Engineering Science/ Engineering Physics/Ceramics Engineering/ Electronics/ Chemical Engineering/Energy Science and Engineering (with first division as defined by the awarding Institute/ University) AND GATE qualification,	MEQ: Masters' degree in the relevant Department (with first division as defined by the awarding Institute/ University)
OR	
BE/ BTech degree either in Metallurgy/ Materials Science and Engineering/ Mechanical/ Manufacturing/ Production Engineering/ Nanotechnology/ Engineering Science/ Engineering Physics/Ceramics Engineering/ Electronics/ Chemical Engineering/Energy Science and Engineering (with first division as defined by the awarding Institute/ University) AND valid GATE qualification,	QE: Valid TOEFL/IELTS OR equivalent qualification
OR	OR
Masters' degree in Chemistry/ Physics/ Materials Science/ Applied Electronics/ Nanoscience and Technology (with	Valid GATE qualification

first division as defined by the awarding Institute/ University) AND valid GATE qualification OR UGC/CSIR-JRF qualification OR Equivalent Fellowship.	
OR	
Masters' degree in the Chemistry/ Physics/ Materials Science/ Applied Electronics/ Nanoscience and Technology (with first division as defined by the awarding Institute/ University) with UGC-NET (Lecturership) AND valid GATE qualification	
GATE is not compulsory for DF (Defense Forces) / IS (Institute Staff) / CT (College Teacher) / SW (Sponsored without Institute scholarship).	

(Please refer to the main page on our academic portal Link-
<https://academic.iiti.ac.in/phdadvt.php> for more details)

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 signed application form along with the supporting documents should be sent by the applicants to dpgcmems@iiti.ac.in latest by **31st May 2022 (Tuesday)**.
 - a) Original documents will be verified at the time of admission as per institute rule.
 - b) For SW candidates - No Objection Certificate, Experience Certificate, Salary slips of last three months and Employer's PAN card must be submitted.
 - c) Candidates must arrange recommendation letters from at least two referees. Referees shall e-mail the reference letters directly to dpgcmems@iiti.ac.in before **06th June 2022 (Monday)**.
 - d) Application Fee: Please, refer to main page on our academic portal link-
<https://academic.iiti.ac.in/phdadvt.php>
3. **Please don't send any form or documents by post.**
4. Meeting link will be shared to shortlisted candidates for **online written test and/or interview** scheduled on **07th and 8th June 2022 (Tuesday and Wednesday)** at 09.30 AM (reporting date and time for all applicants).
5. No emails or communication, in any form, regarding 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 for selection into the PhD program.