

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

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

FA (Fellowship Awardee) Category only-Online mode

IITI/Acad/PhD Admissions/2022-23

August 27, 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	Topic Code	Research Topic
Dr. Abhijit Ghosh	MM-01	Creep and crystallographic texture in Mg alloys
		Shape memory alloys
Dr. Ajay Kumar Kushwaha	MM-02	Metal oxides/Graphene/2D nanomaterials for memory devices & sensors
		E-waste: Metal recovery from electronic waste/ metal ion batteries
Dr. Chandan Halder	MM-03	Study the diffusion behaviour in alloy steel through Finite Element Method (FEM).
		Study the diffusion behaviour for dissimilar metal joining.
Dr. Dharendra K. Rai	MM-04	Energy Storage Materials (Supercapacitors and Batteries)
		Carbon Dioxide Capture and Conversion
Dr. Dudekula Altaf Basha	MM-05	Deformation behavior of magnesium alloys.
		Development of non-rare earth magnesium alloys.
Dr. Hemant Borkar	MM-06	Investigation of mechanical properties, microstructure and texture of wrought Mg alloys and its composites
		Additive manufacturing of light weight alloys
Dr. Jayaprakash Murugesan	MM-07	Fatigue and fretting fatigue behavior of advanced materials
		Advances in materials joining and additive manufacturing
Dr. Mrigendra Dubey	MM-08	Chemistry of Soft materials and electronic applications
		Luminescent materials
Dr. Nisheeth Prasad	MM-09	Sustainable approach towards corrosion prevention.
		Design and development of smart coatings for corrosion protection.
Prof. Parasharam M. Shirage	MM-10	Nanostructured materials for multifunctional applications
		Thin Films and functional materials for sensors, supercapacitor, battery and solar cells
Dr. Ram Sajeewan Maurya	MM-11	Metallic Glass for biomedical applications
		Metal matrix composites through powder metallurgy
Dr. Rupesh Shivaji Devan	MM-12	Materials for energy storage

		Photoactive materials
Dr. Santosh S. Hosmani	MM-13	Surface Processing of Materials and Tribology
Dr. Sumanta Samal	MM-14	Magnetic properties of undercooled materials.
		Machine learning algorithm for design of refractory high entropy alloys (RHEAs) for high temperature applications.
Dr. Sunil Kumar	MM-15	Composite Electrolytes for Lithium Batteries.
Dr. Vinod Kumar	MM-16	Development of anti friction coating
		High entropy alloys for biomaterial applications

Students who are looking for Teaching Assistantship (TA) from the Institute need not to apply. For more details, refer to the main Ph.D. Advertisement of the Institute 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)	15th September 2022 (Thursday)
Date of online written test and/or interview (for both National and International applicants)	19th and 20th September 2022 (Monday and Tuesday)

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 first division as defined by the awarding Institute/ University) AND valid GATE qualification OR UGC/CSIR-JRF qualification OR Equivalent Fellowship.	Valid GATE qualification
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	

(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. Scanned copy of the signed application form along with the supporting documents should be sent by the applicants to dpgcmems@iiti.ac.in latest by **15th September 2022 (Thursday)**.
 - a) Original documents will be verified at the time of admission as per Institute rule.
 - b) Candidates must arrange recommendation letters from at least two referees. Referees shall e-mail the reference letters directly to dpgcmems@iiti.ac.in before **18th September 2022 (Sunday)**
 - c) 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. **online written test and/or interview** are scheduled for **19th and 20th September 2022 (Monday and Tuesday)** at 09.30 AM (reporting date and time for all applicants). Interview call letter will be sent via e-mail only to the shortlisted candidates. In case of online written test and/or interview, meeting link will be shared.
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.