

**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

February 23, 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 Topics
Dr. Abhijit Ghosh	MM-01	Creep and crystallographic texture in Mg alloys
	MM-02	Shape memory alloys
Dr. Ajay Kumar Kushwaha	MM-03	Nanomaterials for Sensors
	MM-04	Nanostructured films for Solar Cell and Hydrogen Generation.
Dr. Dharendra K. Rai	MM-05	Design and synthesis of novel materials for Na ⁺ /K ⁺ ion batteries
	MM-06	Design and synthesis of new materials for water splitting and CO ₂ sequestration.
Dr. Dudekula Altaf Basha	MM-07	Severe plastic deformation behaviour of magnesium alloys
	MM-08	Development of rare earth free magnesium alloys
Dr. Eswara P. Korrillilli	MM-09	High strain rate deformation and fracture of metallic materials
	MM-10	Experiments and modeling of high strain rate failure of advanced ceramics
Dr. Hemant Borkar	MM-11	Investigation of mechanical properties, microstructure and texture of wrought Mg alloys and its composites
Dr. Jayaprakash Murugesan	MM-12	Advanced materials joining (welding)
	MM-13	Fatigue and fracture behavior of advanced materials.
Dr. Mrigendra Dubey	MM-14	Development of Soft Materials for electronic applications
	MM-15	Luminescent materials for security applications.
Dr. Parasharam M. Shirage	MM-16	Advanced Functional Materials for Solar cell and Battery Applications
	MM-17	Mechanical Energy Harvesting -Piezoelectric Materials.
Dr. Ram Sajeewan Maurya	MM-18	Bulk Metallic Glasses (BMG) and Its Composites
	MM-19	Eutectic High Entropy Alloys For High Temperature Applications
Dr. Rupesh Shivaji Devan	MM-20	Materials and thin film processing for supercapacitor/solar-cells/photocatalysis
	MM-21	Hybrid materials for energy storage and conversion.

Dr. Santosh S. Hosmani	MM-22	Surface Engineering
	MM-23	Microstructure-Property-Process correlation of metal-based systems.
Dr. Sumanta Samal	MM-24	Magnetic properties of undercooled materials
	MM-25	Design of advanced materials using machine learning approaches
Dr. Sunil Kumar	MM-26	Lithium & Sodium-ion Batteries
	MM-27	Ceramic-Polymer Composite Electrolytes for Lithium Batteries.
Dr. Vinod Kumar	MM-28	Utilisation of metallurgical waste to useful products
	MM-29	Electrochemical study of high entropy 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)	18th March 2022 (Friday)
Date of online written test and/or interview (for both National and International applicants)	21st March 2022 (Monday)

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
<p>Masters' degree in the Department of Engineering/ Technology (such as in Metallurgy/ Materials Science and Engineering/ Mechanical/ Manufacturing/ Production Engineering (with first division as defined by the awarding Institute/ University) AND GATE qualification,</p> <p>OR</p> <p>BE/ BTech degree either in Metallurgy/ Materials Science and Engineering/ Mechanical/ Manufacturing/ Production Engineering (with first division as defined by the awarding Institute/ University) AND valid GATE qualification,</p> <p>OR</p>	<p>MEQ: Masters' degree in the relevant Department (with first division as defined by the awarding Institute/ University)</p> <p>QE: Valid TOEFL/IELTS OR equivalent qualification</p> <p>OR</p>

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

(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 **March 18, 2022 (Friday)**.
 - 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 **March 20, 2022 (Sunday)**.
 - 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 **March 21, 2022 (Monday)** 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.