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

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

IITI/Acad/PhD Admissions/2022-23 **October 28, 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	Nanomaterials for Energy Conversion Devices/Sensors Applications
		Metal oxide/ Graphene oxide/ MoS2 for Resistive Memory Devices
Dr. Chandan Halder	MM-03	Diffusion behaviour in alloy steel through Finite Element Method (FEM)
		Diffusion behaviour for dissimilar metal joining
Dr. Dhirendra K. Rai	MM-04	Energy storage materials (Batteries and Supercapacitors)
		Materials for water splitting and CO2 utilization
Dr. Dudekula Altaf Basha	MM-05	Deformation behavior of magnesium alloys.
		Development of non-rare earth magnesium alloys.
Dr. Eswara P. Korrimilli	MM-06	Deformation behaviour of additively manufactured structural materials
		Advanced materials for body armour applications
Dr. Hemant Borkar	MM-07	Investigation of mechanical properties, microstructure and texture of wrought Magnesium alloys and its composites
		Additive manufacturing of Aluminium based alloys
Dr. Jayaprakash Murugesan	MM-08	Fatigue and fracture behavior of advanced materials
		Advanced welding techniques and additive manufacturing
Dr. Mrigendra Dubey	MM-09	Chemistry of Soft materials and electronic applications
		Super-absorbent materials for agriculture application
Dr. Nisheeth Prasad	MM-10	Corrosion study of high entropy alloys and coatings
		Sustainable approach for corrosion prevention
Prof. Parasharam M. Shirage	MM-11	Nanomaterials
		Energy studies (Battery, Supercapacitors and Solar Cells)
Dr. Ram Sajeevan Maurya	MM-12	Microstructure and mechanical properties of TMT steel.
		High temperature materials for aerojet application.
Dr. Rupesh Shivaji Devan	MM-13	Materials for energy storage
		Photoactive materials

Dr. Santosh S. Hosmani	MM-14	Study of Microstructure and Properties (including Tribology) of Surface Engineered Biomedical Alloys
Dr. Sumanta Samal	MM-15	Magnetic properties of undercooled materials
		Refractory high entropy alloys (RHEAs) for high temperature applications
Dr. Sunil Kumar	MM-16	Solid Electrolytes for Lithium/Sodium Batteries
		Cathode Materials for Na-ion Batteries
Dr. Vinod Kumar	MM-17	Spark plasma sintering of multi-component alloys for biomedical application
		Additive manufacturing of controlled expansion (CE) alloy

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)	**21st November 2022 (Monday)**
Date of online written test and/or interview (for both National and International applicants)	**24th, 25th and 26th November 2022 (Thursday, Friday and Saturday)**

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	
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 scan copy of the signed application form along with the supporting documents should be sent by the applicants to dpgcmems@iiti.ac.in latest by **21st November 2022 (Monday)**.

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 **23rd November 2022 (Wednesday).**

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 **24th, 25th and 26th November 2022 (Thursday, Friday and Saturday)** 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.