

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

**Advertisement for Admission to Ph.D. Program for 2021-22-Autumn Semester**

IITI/Acad/PhD Admissions/21-22

May 17, 2021

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 broad areas as follows:

<b>Research areas</b>	
<ol style="list-style-type: none"><li>1. Development of biocompatible functional nanomaterials</li><li>2. Materials for Rechargeable Lithium &amp; Sodium Batteries</li><li>3. Chemistry of luminescent Soft Materials (Gels) for optoelectronic device applications</li><li>4. Surface Engineering</li><li>5. Nanomaterials and thin film technology</li><li>6. Microstructure-property correlation in high entropy superalloys.</li><li>7. Li-Ion Batteries to store Solar Energy</li><li>8. Development of Oxide Dispersion Strengthened Tungsten Heavy Alloys (ODS-WHAs)</li><li>9. Welding Engineering</li><li>10. High strain rate deformation of materials</li><li>11. Severe plastic deformation behaviour study of magnesium alloys</li><li>12. Energy storage materials (batteries and supercapacitors)</li><li>13. Nanomaterials for solar cells</li><li>14. Piezoelectric Materials</li></ol>	<ol style="list-style-type: none"><li>15. Metal oxide films for electronic devices</li><li>16. Superabsorbent materials for agriculture applications</li><li>17. Development of rare earth free high strength and ductile magnesium alloys</li><li>18. Mechanical behavior of materials</li><li>19. Fuel and reverse fuel cells</li><li>20. Superconductivity</li><li>21. Fabrication of Bulk Metallic Glasses</li><li>22. Materials for energy storage and conversion</li><li>23. Fatigue and fracture behavior of advanced materials.</li><li>24. Physical Metallurgy</li><li>25. Machine learning approach to design advanced materials for structural applications</li><li>26. Materials-structure-property correlation in thin film</li></ol>

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

<b>Minimum Educational Qualifications (MEQs) and Qualifying Examination (QE) for Indian applicants</b>	<b>Minimum Educational Qualifications (MEQs) and Qualifying Examination (QE) for International applicants</b>
<p>Masters' degree in the <b>Department of Engineering/ Technology</b> (such as in <b>Metallurgy/ Materials Science and Engineering/ Chemical Engineering/ Mechanical/ Manufacturing/ Production Engineering</b> (with first division as defined by the awarding Institute/ University) <b>AND</b> GATE qualification,</p> <p><b>OR</b></p> <p>Masters' degree in <b>Chemistry/ Physics/ Material Science/ Applied Electronics</b> (with first division as defined by the awarding Institute/ University) <b>AND</b> valid GATE qualification <b>OR</b> UGC/CSIR-JRF qualification <b>OR</b> Equivalent Fellowship.</p> <p><b>OR</b></p> <p>BE/ BTech degree either in <b>Metallurgy/ Materials Science and Engineering/ Mechanical/ Manufacturing/ Production Engineering</b> (with first division as defined by the awarding Institute/ University) <b>AND</b> valid GATE qualification,</p> <p><b>OR</b></p> <p>Masters' degree in the <b>Chemistry/ Physics/ Material Science/ Applied Electronics</b> (with first division as defined by the awarding Institute/ University) with UGC-NET (Lecturership) <b>AND</b> valid GATE qualification</p>	<p><b>MEQ:</b> Masters' degree in the relevant <b>Department</b> (with first division as defined by the awarding Institute/ University)</p> <p><b>QE:</b> Valid TOEFL/IELTS <b>OR</b> equivalent qualification <b>OR</b> Valid GATE qualification</p>
<p><b>GATE is not compulsory for DF (Defense Forces) / IS (Institute Staff) / CT (College Teacher) / SW (Sponsored WITHOUT Institute scholarship).</b></p>	

Candidates are strongly 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 <a href="https://academic.iiti.ac.in:8443/nregistration.jsp">https://academic.iiti.ac.in:8443/nregistration.jsp</a> (for Indian applicants)	<b>June 15, 2021 (Tuesday)</b>
Date of online Interview (for Indian applicants)	<b>June 21, 2021 (Monday)</b>
Last date of online application through <a href="https://academic.iiti.ac.in:8443/nregistration.jsp">https://academic.iiti.ac.in:8443/nregistration.jsp</a> (for International applicants)	<b>June 15, 2021 (Tuesday)</b>

Date of PhD selection process (for International applicants)	<b>June 21, 2021 (Monday)</b>
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**Minimum Educational Qualifications (MEQs) and Qualifying Examination**

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

**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 following documents should be sent by the applicants to [dpgcmems@iiti.ac.in](mailto:dpgcmems@iiti.ac.in) on **June 15, 2021 (Tuesday)**
  - a) Original documents will be verified at the time of admission as per institute rule.
  - c) Application Fee: Please, refer to main page on our academic portal link-  
<https://academic.iiti.ac.in/phdadvt.php>
  - d) The short-listed candidates must arrange recommendation letters from at least two referees well before appearing interview. Referees shall e-mail the reference letters directly to [dpgcmems@iiti.ac.in](mailto:dpgcmems@iiti.ac.in) or provide in a sealed envelope.
3. For SW candidates - No Objection Certificate, Experience Certificate, Salary slips of last three months and Employer's PAN card must also be submitted.
4. **Important: DO NOT send any form or documents by post.**
5. The link will be shared to shortlisted candidates for **online interview** scheduled on **June 21, 2021 (Monday)** at 09.30 AM (reporting date and time for all applicants).
6. No emails or communication, in any form, regarding shortlisted candidates, change of interview date, etc. will be entertained.
7. Mere fulfillment of the minimum eligibility criterion does not entitle anyone for admission into the PhD program.
8. FA candidates will be encouraged to apply.

**For any queries, please contact:**

**Dr. Mrigendra Dubey (DPGC Convener)**

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