

Center for Promotion of Additive Manufacturing

Call for Ph.D., Dual Degree and M.Tech. (Research) Program (AY 2024-25)

IIT Mandi has established a Center for the Promotion of Additive Manufacturing and invites applications from bright and dedicated young scholars interested in joining the full-time/part-time, Ph.D., Dual Degree(not part-time) and M.Tech. (Research) in the **Center for Promotion of Additive Manufacturing (CPAM): Renewable Energy & Distributed Manufacturing using Customized 4D & 3D Technologies (CPAM: RE & DM)** under Advanced 3D & 4D Printing Technologies, Renewable Energy, Sustainability & Circular Economy, and Distributed Manufacturing. For this purpose, the School of Computing and Electrical Engineering (SCEE) & School of Mechanical and Materials Engineering (SMME) seek applications from suitable applicant (s) for the **Doctor of Philosophy (Ph.D.) and Master of Technology (Research)** programs in the following areas of:

Individual Specializations under CPAM	Specific Areas (But not limited to and other allied areas may also be considered)
<i>Advanced 3D & 4D Printing Technologies</i>	<ul style="list-style-type: none">• Smart materials for 4D printing.• Process-structure-property relationships.• Multi-material and multi-functional printing techniques.• Integration of artificial intelligence.
<i>Renewable Energy</i>	<ul style="list-style-type: none">• Additive manufacturing of lightweight and high-efficiency wind turbine parts.• 3D-printed solar panels and photovoltaic materials.• Manufacturing strategies for energy storage systems.
<i>Sustainability & Circular Economy</i>	<ul style="list-style-type: none">• Recycling and reusing materials.• Life-cycle analysis of 3D-printed renewable energy components.• Development of biodegradable and renewable feedstocks.
<i>Distributed Manufacturing</i>	<ul style="list-style-type: none">• Blockchain integration.• Digital twins for monitoring and optimization.• On-demand production in remote areas.• Internet of things and edge computing for smart manufacturing setups.
<i>Biomedical Applications</i>	<ul style="list-style-type: none">• Prosthetics, orthopedics, and dental implants.• Bio-printing of tissues and organs.• Smart materials for drug delivery.• Low-cost and distributed production of medical

devices in remote or underserved regions.

How to Apply:

Interested candidates are encouraged to fill the online application form available in the following link:

<https://iitmandiadm.samarth.edu.in/aug24/index.php/>

General Information

Information on eligibility, minimum qualifications, and scholarship rules are briefly provided in the following pages of this document. The same can be found at the following links:

M.Tech. (Research)/PhD Ordinance and Regulations (O&R) IIT Mandi:

https://www.iitmandi.ac.in/pdf/ordinances/Ordinances_phd_mtech.pdf

M. Tech (Research)/PhD scholarship Rules:

<https://iitmandi.ac.in/pdf/admissions/Information%20Brochure.pdf>

For Ph.D. <i>Full-Time Research Scholars</i>	<p>Students under this category are entitled to the Scholarship/ Assistantship from Institute / MoE if they qualify for any one of the following criteria.</p> <ul style="list-style-type: none">• Master's degree in Sciences/Engineering/Technology with a good academic record. OR• Bachelor's degree holder in Engineering/ Technology from any CFTIs with a minimum CGPA of 7.5 on a 10.0- point scale. OR• Bachelor's degree holder in Engineering/ Technology from any Non CFTIs with at least CGPA of 7.5 on a 10.0- point scale with valid GATE score. OR• B.Tech. / B.E. (or equivalent) degree from any of the top 100 Institutes according to NIRF ranking (overall category) at the time of application with a CGPA/GPI of at least 7.5 (on a scale of 10) or equivalent. OR• B.Tech./ B.E. (or equivalent) degree from any Himachal Pradesh Govt. Institute or universities with CGPA/GPI of at least 7.5 (on a scale of 10) or equivalent.
For Ph.D. <i>Part-Time Research Scholars</i>	<ul style="list-style-type: none">• Institute Staff Members/Research scholars under QIP/Research Scholars under External Registration/Research Scholars working on Part Time Basis.• Individuals employed in R&D environments in Scientific Institutions (including IIT Mandi) or industries.• Faculty members of all Engineering Colleges/Universities recognized by appropriate government agencies.• The required qualification remains the same as for the regular candidates except for the requirement of qualifying in one of the national entrance tests. Further the candidate should have at least two years of work experience.
For M.Tech. (Research) <i>Full-Time Research Scholars</i>	<p>Students under this category are entitled for the Scholarship/ Assistantship from Institute / MoE if they qualify any one of the following criteria.</p> <ul style="list-style-type: none">• Candidates with a Bachelor's Degree in Engineering/Technology or Master's Degree in appropriate Sciences. A valid GATE score is required for admission to the M. Tech (by research) program. OR• Candidate with B.Tech./BE degree from Centrally Funded Technical Institutes (CFTIs) with a minimum CGPA of 7.5 on a 10.0 point scale

	<p>(or equivalent). (National Level examinations are waived off for HTRA Scholarship) OR</p> <ul style="list-style-type: none"> • B.Tech./ BE (or equivalent) degree from any Himachal Pradesh Govt. Institute or universities with CGPA /GPI of at least 7.5 (on a scale of 10) or equivalent. OR <p>B.Tech./ BE equivalent from any of the top 100 institutes according to NIRF ranking (overall category) at the time of application with in CGPA /GPI of at least 7.5 (on a scale of 10) or equivalent.</p>
<p>For M.Tech. (Research) <i>Part-Time Research Scholars</i></p>	<ul style="list-style-type: none"> • Institute Staff Members/Research Scholars under External Registration/Research Scholars working on a part-time basis, • Individuals employed in R&D environments in Scientific Institutions (including IIT Mandi) or industries and • Faculty members of all Engineering Colleges/Universities recognized by appropriate government agencies. <p>The required qualification remains the same as for the regular candidates. Further the candidate should have atleast two years of work experience</p>
<p>For Dual Degree M.Tech. (Research) +Ph.D. <i>Full-Time Research Scholars</i></p>	<p>Students under this category are entitled to the Scholarship/ Assistantship from Institute / MoE if they qualify for any one of the following criteria.</p> <ul style="list-style-type: none"> • The candidate must possess BE/B.Tech or M.Sc. or equivalent Degree with a valid GATE Score • GATE Score is waived off for candidates having B.Tech/BE degree from CFTI with CGPA ≥ 8
<p>Exemptions from mandatory requirements of Valid GATE or National Level examination:</p> <ul style="list-style-type: none"> • B.Tech./B.E./B.S. (or equivalent) degree from CFTI (Centrally Funded Technical Institute)/ any of the top 100 institutes according to NIRF ranking (overall category) at the time of application, with CGPA/CPI at least 7.5 (on a scale of 10) or equivalent • BS-MS/M.Sc./equivalent from IITs, IISERs, IISc, IIMs or any of the top 100 institutes according to NIRF ranking (overall category) at the time of application with a CGPA/CPI of at least 7.5 (on a scale of 10) or equivalent. • NIRF Ranking (within top 100) should be in the overall category granted for the year during which admission is sought. • Any Himachal Pradesh Govt. Institutions/Universities, with CGPA/CPI at least 7.5 (on a scale of 10) or equivalent. 	

Note: Industrial or Academic Institute Sponsored M.Tech. (Research)/PhD candidates are not eligible for MOE/HTRA scholarships.

For any other queries regarding documents, eligibility conditions and foreign admissions in CPAM, please contact the SCEE office at 0195-267841/7071 or through email scee-admissions@iitmandi.ac.in, We look forward to reviewing your application.

Employed candidates seeking admission to **M.Tech. (Research)/PhD** must submit a “**No Objection Certificate**” from their current employer at the time of interview. For any problems regarding filling of online applications, please contact it_helpdesk@iitmandi.ac.in

Application Fee for M.Tech. (Research)/Ph.D. Admission:

Category	Amount in ₹
General/EWS/OBC/OBC (NCL)/Transgender/Foreign Nationals	200
Women/SC/ST/PD	100

Mode of Payment: Online within application form.

Important dates:

Start of online application	25 February 2025
Deadline for online application	30 April 2025 (till 5:00 PM)
Date of Interview (tentatively)	20-25 May 2025

Mode of Interview: The shortlisted candidate will be called for an interview. The interview will be online mode.

- Reservation policies as per prevailing GoI rules will be followed. IIT Mandi reserves the right to admit / not admit for any of the advertised areas.
- For each specialization and program, candidates should submit a separate application with the application fee.
- The decision of the competent authority in all matters relating to the eligibility of the candidate, written test/Interview and admission would be final and binding on all the candidates. In case of any dispute/ambiguity that may occur in the process of admission the decision of the Institute shall be final.
- All the details furnished in the online application will be treated as final and no changes shall be entertained. Non-submission of valid/required documents and/or incomplete application shall be summarily rejected.

Note: IIT Mandi reserves the right to recruit/ not recruit for any of the advertised areas and apply appropriate criteria for shortlisting candidates.