Indian Institute of Technology Mandi

Kamand, Himachal Pradesh - 175075

भारतीय प्रौद्योगिकी संस्थान मण्डी

कमांद, हिमाचल प्रदेश – 175075

Date: 05.12.2024

Admissions in M.Tech. (Research), M.Tech.(Research) + Ph.D. (Dual Degree) and Ph.D. Programs
School of Mechanical and Material Engineering, Indian Institute of Technology Mandi

School of Mechanical and Materials Engineering (SMME) of IIT Mandi is inviting applications for the second round of admission process in the M.Tech. (by Research), M.Tech. (Research) + Ph.D. (Dual Degree) and Ph.D. programme in a variety of disciplines and interdisciplinary areas under Regular Full-Time, Self-Sponsored and Part-Time mode. **Candidates from the reserved categories (OBC-NCL, SC, ST, EWS, PwD) are encouraged to apply against this advertisement to fill vacant seats in the mentioned programs.**

Available Program and Specializations for Admissions

S.N.	Program	Discipline	Broad Research Areas
1.	Ph.D. / M.Tech (Research) / Dual degree (M .Tech (Research) + Ph. D)	Mechanical Design	Acoustics; Solid Mechanics and Design; Computational Solid Mechanics; Continuum Mechanics; Fracture-Fatigue; Functionally Graded Materials; Mechanics of Composite Materials; Mechanics of Metamaterials; High Technology Materials and Structures; Machine Design; Vibration; Smart material/Structure; Piezoelectric Energy Harvesting; Finite Element Method; Modeling & Control; Biomechanics; Orthopedic Biomechanics; Implant Design; Bone & Biomaterial Fracture; Deformation induced emissions; Structural health monitoring; Smart materials and structures; Vibration energy harvesting.
2.	Ph.D. / M.Tech (Research) / Dual degree (M .Tech (Research) + Ph. D)	Fluid Thermal	Alternative Fuels; IC Engines; Emissions Control; Experimental Fluid Dynamics;Spray Atomization & Combustion; Advance Laser Diagnostics & Image Processing; Snow avalanche dynamics; Multiphase flows; Computational fluid dynamics; Population balance modelling; Non-Newtonian fluids; Fluid Mechanics; Thermal Science and Engineering; Thermal Radiation; Solar Radiation; Collimated Beam Radiation; Non-gray Radiation; Interface capturing; Mesoscale simulations; Probes and instrumentation for two-phase flow; Experimental Nanofluidics; Liquid Phase Electron Microscopy; Machine learning and CFD; Mineral processing.
3.	Ph.D. / M.Tech (Research) / Dual degree (M .Tech (Research) + Ph. D)	Manufacturing	Additive Manufacturing (Metal, Polymer – Particulate; Short and Continuous fiber; Ceramics); Cyber Security in Additive Manufacturing; AI and Machine learning in Manufacturing ; Design and development of Composites for specified application ; Waste utilization; Additive manufacturing (Extrusion based Metal and Continuous Fiber); Reinforced composites 3D printing; Highly filled (metal, short fibre filament production); LCA; Advanced Manufacturing; Perovskite Solar Cells; Solar Thermal utilization; Energy Storage; Advanced Manufacturing Processes for Polymer Composites; Sustainable Bio-composites; Recycling of Polymer Composites; Surface Engineering and Experimental Tribology
4.	Ph.D. / M.Tech (Research) / Dual degree (M .Tech (Research) + Ph. D)	Materials Engineering / Materials Science	Glasses for Electrical Applications; Solid State Refrigeration; Pyroelectric Energy Harvesting Materials and Methods; Piezoelectric Energy Harvesting Materials and Methods; Carbon based micro/ nano devices; Microstructure and crystallinity of sp2 carbons; Waste-derived carbon; Nano-manufacturing for Electronics Sensor and Micro supercapacitor applications; Vapor Phase Growth(CVD, PVD & ALD) of Functional Nanostructures and Thin films; Phase Transition in Functional Oxide Materials and Thin Films; Nano-mechanics of Phase Change Materials and 2D Materials; Analytical Microscopy and Imaging; Drug Delivery System; Biosensors; Micro porous membranes; Multifunctional hybrid material; Condensed Matter Physics and Materials Science; Carbon materials and applications, Multi-Material Additive Manufacturing, Food 3D printing, Additive Friction Stir Deposition, Severe Plastic Deformation (using High-Pressure Torsion and Friction Stir Processing), Grain Boundary Engineering, Hydrogen Storage, Artificial Intelligence and Machine learning in Materials Science and Additive Manufacturing, Wear and Corrosion Studies, Coatings, Extractive Metallurgy, Electronic waste Recycling and metal recovery.
5.	M.Tech (Research)	Computational Mechanics	Computational Solid Mechanics; Mechanics of Metamaterials; Finite element modeling; Computational fluid dynamics and heat transfer; Non-Newtonian fluid dynamics; Multi-phase flow; Numerical solution of partial differential equations.

For more details about the Programme at IIT Mandi, please visit:

https://www.iitmandi.ac.in/pdf/ordinances/Ordinances_Ph.D.pdf

https://www.iitmandi.ac.in/pdf/ordinances/Ordinances_MTech(R).pdf

Minimum Eligibility Criterion for Appearing in Admission Process:

The candidate must fulfil any one of the criterion mentioned below in the table:

For admission in Ph.D.	Bachelor's degree in Engineering/Technology or equivalent with a valid GATE score; OR
	Master's or equivalent degree in Science (or allied subjects) with a valid GATE score; OR
	Bachelor's degree in Engineering/Technology or Master's or equivalent degree in Science with experience of two years or more in a reputed R&D Organization with a proven research record.
	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 / any Himachal Pradesh Govt. institution or universities with CGPA/CPI of at least 7.5 (on a scale of 10) or equivalent with relaxation to reserved categories. OR
	Master's or equivalent degree in Engineering/Technology
For admission in M.Tech. (Research)	Bachelor's degree in Engineering/Technology or equivalent with a valid GATE score; OR
	Master's or equivalent degree in Science (or allied subjects) with a valid GATE score; OR
	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 / any Himachal Pradesh Govt. institution or universities with CGPA/CPI of at least 7.5 (on a scale of 10)or equivalent with relaxation to reserved categories.
For admission in Dual Degree (M .Tech + Ph. D)	Bachelor's degree in Engineering/Technology or equivalent with a valid GATE score; OR
	Master's or equivalent degree in Science (or allied subjects) with a valid GATE score; OR
	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 / any Himachal Pradesh Govt. institution or universities with CGPA/CPI of at least 7.5 (on a scale of 10) or equivalent with relaxation to reserved categories.

Notes:

- **GATE/national level exam score is exempted for the candidates applying under self-sponsored and part-time mode. However, they will not get scholarship during the program study from the institute.**
- **The first choice/preference will be considered for processing the application; candidates are advised to fill choice of discipline on the application portal accordingly.** Candidate should submit separate application for multiple discipline/programs.
- Mode of Interview: The shortlisted candidate will be called for interview. **Interview will be in hybrid mode (both online and offline).**
- **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, candidate 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.

Application Procedure:

Candidates should submit their application on Samarth application portal link given below:

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

For any other queries related to the this admission process you may contact smmeadmissions@iitmandi.ac.in   or 01905-267138

Application Fee:

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

Mode of Payment: Online

One application fee is valid for the single application. The application fee is non-refundable.

Important Dates:

Start Date for filling Online Application	05th December 2024
Last Date for filling Online Application	5PM (IST) of 16th December 2024
Interview	Tentatively 26-27 December 2024 (To be announced on IIT Mandi webpage)

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