



## School of Computing and Electrical Engineering

### Call for M. Tech (Research) - Aug-Dec Semester 2023

IIT Mandi invites applications from bright and dedicated young scholars interested in joining the part-time/full-time **M.Tech (Research)** program in the **School of Computing and Electrical Engineering (SCEE)**. For this purpose, SCEE seeks applications for the Master of Technology (M. Tech) Research program in the following areas of computer science and electrical engineering:

Individual specializations under SCEE	Specific Areas (But not limited to)
Systems Engineering and Theoretical CS	<ul style="list-style-type: none"><li>● Algorithms and Data Structures</li><li>● Communication complexity and distributed computing</li><li>● Applied robotics</li></ul>
Intelligent Systems	<ul style="list-style-type: none"><li>● Cognitive Science, AI</li><li>● AI/ML for Cybersecurity</li><li>● Computer Vision</li><li>● Biomedical Imaging</li><li>● Human-Computer Interaction</li><li>● 360, virtual or augmented reality</li><li>● Machine Learning</li><li>● Machine Learning for Signal processing</li></ul>
Control Systems	<ul style="list-style-type: none"><li>● Mathematical control theory</li><li>● Machine learning control</li><li>● Fault diagnosis and fault-tolerant control</li><li>● Controlled Environment Agriculture</li><li>● Control for CPS/IoT</li><li>● Networked Control System</li><li>● Control and decision making over networks</li><li>● Control of Connected and Autonomous Vehicles</li><li>● Control of Multi-Agent and other Robotic Systems</li><li>● Estimation and filtering</li><li>● Target tracking</li><li>● Continuous glucose monitoring</li></ul>
Microelectronics and VLSI	<ul style="list-style-type: none"><li>● Analog and Mixed-signal VLSI Design</li><li>● RF and Microwave</li><li>● FPGA-based IoT and Hardware Security</li></ul>



	<ul style="list-style-type: none"><li>● Micro &amp; Nanoelectronics</li><li>● Digital VLSI Architecture Design for Communication</li><li>● Biomedical Embedded Systems</li><li>● Semiconductor Physics/ Devices</li><li>● Sensor and Networks</li><li>● Digital VLSI Architecture Design for Communication, Signal Processing, and Artificial Intelligence</li></ul>
Power Engineering	<ul style="list-style-type: none"><li>● Electrical Machines and Drives</li><li>● Power Electronics</li><li>● Power Systems</li></ul>
Communications and Signal Processing	<ul style="list-style-type: none"><li>● Photonics</li><li>● IoT networks</li><li>● Communication networks</li><li>● Wireless Communication</li><li>● RF and Microwaves communications &amp; component design</li><li>● Information theory</li><li>● Signal processing, image processing</li><li>● Machine learning for signal/image processing &amp; communications</li></ul>
Digital Health	<ul style="list-style-type: none"><li>● Medical Imaging and Computer Vision, AI in Healthcare, Radiomics in Oncology</li><li>● AI, HCI, and Cognitive Science with a focus on digital health</li><li>● Medical Imaging and Computer Vision, AI in Healthcare</li><li>● AI-based diagnostic and prognostic models, Computational Biomarkers</li><li>● Continuous glucose monitoring, Pandemic (e.g., Covid-19) spread analysis</li><li>● Computational Neuroscience, Neurovascular Coupling, Neurodiagnostic and Neurotherapeutics</li><li>● IoT based EM Biosensors for 5G applications, Smart Sensor for Eye, Bone and Heart diseases</li><li>● Medical Image Analysis using Deep Learning</li><li>● In memory computing, Hardware security, Medical image compression</li><li>● MR Image processing, MRI hardware, and Affordable MRI</li></ul>



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**Link to the online application<sup>1, 2</sup>:**

<https://oas.iitmandi.ac.in/External/Admission/Login.aspx>

It is kindly advised to get in touch with faculty members directly for further information regarding the different research areas and positions available with them listed on

<https://iitmandi.ac.in/Schools/SCEE/faculty.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://iitmandi.ac.in/academics/files/Ordinances\\_phd\\_mtech.pdf](https://iitmandi.ac.in/academics/files/Ordinances_phd_mtech.pdf)

M. Tech (Research)/PhD scholarship Rules:

<https://www.iitmandi.ac.in/academics/scholarship.php>

A valid GATE score is required for admission to the M. Tech (Research) program, and for availing HTRA scholarship.

**Note:** Industrial or Academic Institute Sponsored or Part-time M. Tech (Research) are not eligible for MHRD/HTRA scholarships. Employed candidates seeking admission to M. Tech (research) must submit a “**No Objection Certificate**” from their current employer at the time of interview.

For any problems regarding filling-up of online applications, please contact [oassupport@iitmandi.ac.in](mailto:oassupport@iitmandi.ac.in)

For any other queries regarding M. Tech (research) program in SCEE, please contact the SCEE office through email: [scee-admissions@iitmandi.ac.in](mailto:scee-admissions@iitmandi.ac.in).

We look forward to reviewing your application.

### **Application Fee for M. Tech (research) Admission:**

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<sup>1</sup> To apply for other specific areas not listed above, kindly fill “Others” in the specific area section after selecting the Broad Research Area on the OAS portal.

**Indian Institute of Technology Mandi**  
**Mandi-175005, Himachal Pradesh, India**



**भारतीय प्रौद्योगिकी संस्थान मण्डी**  
**मण्डी-175005, हिमाचल प्रदेश, भारत**

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

**Mode of Payment<sup>3</sup>: SBI Collect Portal.**

**Important dates:**

Start of online application:	21 April 2023
Deadline for online application:	2 May 2023
Interview:	19-20 May 2023

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

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<sup>3</sup>Applicants should submit the fee on SBI collect portal of IIT Mandi; and submit the generated transaction number on the OAS admission application portal. One application fee is valid for the single application. The application fee is non-refundable.