

Date: 28.12.2023

**Spot Round of Admissions in Ph.D, Dual Degree (M.Tech(R)+Ph.D) & M.Tech (Research) at Centre For AI & Robotics, IIT Mandi**

Centre for AI & Robotics, IIT Mandi is inviting applications for admission in the Ph.D, Dual Degree (M.Tech(R)+Ph.D) & M.Tech (Research) programme in a variety of disciplines and Interdisciplinary areas under Regular Full-Time mode.

**Available Program and Specializations for Admissions:**

Broad Research Area	Specific Areas (but not limited to)	Branches
Drones	<ul style="list-style-type: none"> <li>● Aerial manipulation</li> <li>● Autonomous navigation and control In GPS denied environment.</li> <li>● Drone analytics</li> <li>● Nano Drones</li> <li>● Drone application for Surveillance and Industrial Structure Inspection</li> <li>● Swarm Drones</li> <li>● Novel propulsion mechanism for Drones</li> <li>● Airborne sensors such as Lidar, Multispectral Cameras</li> <li>● Drone Electronics</li> <li>● Energy management of Drones</li> </ul>	Master's / Bachelor's degree in: Mechanical Engineering /Electrical and Electronics Engineering/ Electrical and Communication Engineering / Computer Science Engineering/Information Technology/ /Instrumentation and control/ Mechanical (Robotics)/ Automation Engineering/Automobile Engineering/ Industrial Engineering/Aeronautical/ Aerospace Engineering/Remote sensing.
Multi-Agent Systems	<ul style="list-style-type: none"> <li>● Visual Servoing</li> <li>● Visual Robot Programming</li> <li>● Multi-agent Systems</li> <li>● Swarm Robotics</li> <li>● Formation control</li> <li>● Collision Avoidance</li> <li>● Autonomous navigation</li> <li>● Human-Robot Collaboration</li> </ul>	
Robotics	<ul style="list-style-type: none"> <li>● Grasping and manipulation</li> <li>● Collaborative manipulation</li> <li>● Teleoperation</li> <li>● Legged Robotics</li> <li>● Marine Robotics</li> </ul>	
AI & Robotics for Biomedical Applications	<ul style="list-style-type: none"> <li>● Generative AI tools for Enhanced sampling of biomolecules</li> <li>● Drug Target identification</li> <li>● In Silico protein-protein interactions</li> <li>● Machine learning for molecular/drug design</li> <li>● Nano robots for sensing and diagnosis</li> <li>● Image-guided surgery intervention</li> <li>● Robot-assisted surgery</li> </ul>	
Cyber-Physical Systems (CPS) and Connected and Autonomous Vehicles (CAVs)	<ul style="list-style-type: none"> <li>● Driverless Cars</li> <li>● Cloud-Facilitated Control of CAVs</li> <li>● Optimal control of CAVs</li> <li>● Intelligent control in CPS</li> <li>● Electric and Hybrid Electric Vehicles</li> </ul>	

Cyber Security	<ul style="list-style-type: none"> <li>● Cyber security of connected systems</li> <li>● AI/ML based threat detection and protection</li> <li>● AI/ML based analysis of cyber-Attack and Deepfake Detection</li> </ul>	
AIML for Robotics	<ul style="list-style-type: none"> <li>● Robot Learning</li> <li>● Robotic Inspection and AIML based anomaly detection.</li> <li>● Predictive maintenance of Industrial Structures based on data from Intelligent agents.</li> <li>● NLP (LLM) integration with Robotic Agents</li> <li>● Reinforcement Learning for Robotic Agents</li> <li>● Generative AI for training of Robotic agents</li> <li>● Deep Learning for Robotics</li> </ul>	

**Minimum Eligibility Criteria for Appearing in Admission Process:**

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

<b>For admission in Ph.D.</b>	<p>I. Master's degree in Engineering/Technology/Science. OR</p> <p>II. B.Tech. /B.E. from Centrally Funded Technical Institutes (CFTIs), with a minimum CGPA of 7.5 on a 10.0 point scale (or equivalent). OR</p> <p>III. B.Tech. /B.E. from Non-CFTIs with a valid GATE score or other equivalent national exam qualification (Validity required at the time of joining) and CGPA of at least 7.5 out of 10.0 (or equivalent). OR</p> <p>IV. Any Himachal Pradesh Govt. Institutions or universities with CGPA/CPI of at least 7.5 (on a scale of 10) or equivalent.</p>
<b>For admission in M.Tech. (Research)</b>	<p>Bachelor's degree in Engineering/Technology with a valid GATE score; OR</p> <p>B.Tech. /B.E. 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. Institutions or universities with CGPA/CPI of at least 7.5 (on a scale of 10) or equivalent.</p>
<b>For admission in Dual degree (M.Tech(R) + Ph. D)</b>	<p>Bachelor's degree in Engineering/Technology with a valid GATE score; OR</p> <p>B.Tech. /B.E. 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. Institutions or universities with CGPA/CPI of at least 8.0 (on a scale of 10) or equivalent.</p>

**Notes:**

- **Mode of Interview:** The shortlisted candidate will be called for an interview. **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.

Link to the online application:

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

**Application Fee:**

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

*Mode of Payment: SBI Collect Portal.*

For any problems regarding filling out online applications, Please contact [oassupport@iitmandi.ac.in](mailto:oassupport@iitmandi.ac.in)

**Important Dates:**

Last date for filling Online Application	<b>01 January 2024 (4 PM)</b>
Tentative date of Interview (online)	<b>04 &amp; 05 January 2024</b>

**Note:**

**The Interview link will be sent to shortlisted candidates.**

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

For any queries related to the admission process you may contact [cairoffice@iitmandi.ac.in](mailto:cairoffice@iitmandi.ac.in)

Ph: 01905-267791

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