

Indian Knowledge System and Mental Health Applications

Call for MTech (by Research) / Ph.D. Program

(Second Round, February Semester, 2023)

IIT Mandi invites applications from bright and dedicated young scholars interested in joining the full-time or part-time MTech (by Research)/Ph.D. program in the **Indian Knowledge System and Mental Health Applications Centre (IKSMHA Centre)** at IIT Mandi. For this purpose, IKSMHA Centre seeks applications for the MTech (by Research) and Ph.D. programs in the following areas:

Discipline	Broad Research Area	Driving Research questions
Indian Knowledge System	Integrative study of body, mind and consciousness	<ul style="list-style-type: none">- Laws of semantics and Foundations of Psychology- What are the cognitive biomarkers of consciousness?- How to measure and improve states of epistemic curiosity (or lack of cognitive inertia)?- What are the cognitive biomarkers of creativity and the effect of IKS interventions?- What is the connection between consciousness and sleep states?- How to investigate dreams and the contents of dreams?- How to evaluate the level of sleep and enhance sleep and dream quality?- How does physiological data relate to common yoga practices?- What are the relations between neural, physiological, and molecular signatures, and how are they affected by IKS-based interventions?- Use of neurofeedback and biofeedback mechanisms to improve meditation and yoga practices
	Scientific characterization of brain network with the intervention of Yoga and Meditation	
	Learning Mind-brain paradigm from Ayurveda	
	Mind-brain paradigm in Bhagavata Samkhya	
	Traditional Indian Medicine Research for mental wellbeing	
	Indian Performing Arts and Cognition	
	Cognitive Neuroscience	
	Cognitive Psychology	
	Cognitive Technology and Bio/Neurofeedback	
	Judgment and Decision Making	

	Mental Health	<ul style="list-style-type: none"> - How does one assess the importance of intention and goodness from the perspective of cognitive biomarkers? - Could computer vision and VR applications improve yogasana practices? - Could Mantra chanting and tDCS in Virtual Reality (VR) improve mental conditions? Can this improvement be predicted via machine learning methods? - What is the relationship of Prakriti on the effectiveness of meditation therapies for psychological and lifestyle disorders? - Could machine learning predict a person's Prakriti? - Could Indian music and dance therapies help improve clinical cases of mental and lifestyle disorders? - How do we personalize music and dance therapies (e.g., based on the Prakriti of the subject or other factors)? - How can IKS interventions aid in the cases of deaddiction? - How to develop translational technology based on IKS interventions for clinical and home-based setups?
Virtual Reality and Sensors	Virtual Reality Applications	
	Bio/Neuro/Physiological Sensing	
Mental Health Applications	Depression, Stress and cognitive loading, Sleep Disorder, Autism, Alzheimer, Parkinson	

Link to the online application^{1, 2}: <http://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://www.iitmandi.ac.in/research/iksmha/>

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

MTech (by Research) /Ph.D. Ordinance and Regulations (O&R) IIT Mandi:

https://www.iitmandi.ac.in/academics/ms_phd_eligibility.php

The MTech (by Research) program is referred to as MS (by Research) program in the above document.

MTech (by Research)/Ph.D. Scholarship Rules:

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

The MTech (by Research) program is referred to as MS (by Research) program in the above link.

For Ph.D. applicants: To be eligible for an HTRA scholarship, the candidate must have qualified at the national level exams like GATE, CSIR-NET, or equivalent at some point in their career.

For MTech (by Research) applicants: To be eligible for an HTRA scholarship, the candidate must have a valid GATE/CSIR-NET/GRE/GMAT or equivalent score.

Note: Industrial or Academic Institute Sponsored or Part-time MTech (by Research)/Ph.D. candidates are not eligible for MHRD/HTRA scholarships.

Employed candidates seeking admission to MTech(Research)/Ph.D. 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

For any other queries regarding MTech (by Research)/Ph.D. programs in IKSMHA, please contact the IKSMHA office through email: iksmha@iitmandi.ac.in. We look forward to reviewing your application.

Application Fee for MTech (by Research)/PhD Admissions

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

Mode of Payment³: SBI Collect Portal.

Important dates:

Start of online application: 28th December 2022

Deadline for online application: 10th January 2023

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



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मण्डी-175005, हिमाचल प्रदेश, भारत

Announcement of shortlisted candidates: 12th January 2023

Interview: 15th/16th January 2023

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

1. Upload self-attested documents as a single zip file (Proof of identity (Aadhar card/voter card/PAN card/any other), Class 10 certificate as proof of date of birth, Mark sheets of UG and PG degrees (rank certificate, if any), Qualifying certificate of the GATE/CSIR/UGC/other examination, Caste Certificate.)
2. 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.
3. Applicant should submit fee on SBI collect portal of the IIT Mandi, and submit generated transaction number to the OAS admission application portal. One application fee is valid for a single application. The application fee is non-refundable.