



IIT Mandi iHub and HCI Foundation

CIN: U73100HP2020NPL008102

Regd. Office: IIT Mandi, VPO Kamand, Mandi, Himachal Pradesh, India – 175075

Post Doctoral Fellowships at IIT Mandi iHub and HCI Foundation

Applications are invited from Indian citizens for the **Post Doctoral Fellowships** in the IIT Mandi iHub and HCI Foundation (iHub), situated on the Indian Institute of Technology (IIT) Mandi campus at Kamand Himachal Pradesh, India – 175075.

About iHub: IIT Mandi iHub and HCI Foundation (iHub) is a section 8 company established under the National Mission on Interdisciplinary Cyber-Physical Systems (NM-ICPS). The vision of the iHub is to make India a leader in HCI research in the world. Based on faculty strengths, industry collaborations, and ongoing projects, the iHub's focus will be on the following: technology (interface) development and evaluation, HRD & skill development, entrepreneurship, and collaborations. For more information, visit www.ihubiiitmandi.in

Details: Human-computer interaction, also referred to as man-machine interaction (MMI), is a wide and multidisciplinary field that aims to improve the interactions between users and computers by making computers more usable and receptive to the users' needs. The field involves decision tasks that require a joint performance by both humans and machines. Some important aspects of HCI are user-interface design and user-interface evaluation.

Title of the post: Multisensory Experience

Job profile: The fellow would work on Design Interfaces that allow the stimulation of unexplored sensory inputs (e.g., Digital Smell), as well as interfaces that take into account the relationships between the senses (e.g., integration of taste and smell into flavour).

Joining date: As soon as possible.

Number of posts: Two (02)

Job description for Post 1 - Multisensory

The main goal is to design Dynamic Haptic HCIs and to understand the ways in which human senses process information and relate to one another. To determine which Tactile, Gustatory, and Olfactory experiences we can design for, and how to meaningfully stimulate them in technology interactions.

Requirements: PhD in electrical engineering, mechanical engineering, physics, computer science or other related fields; profound knowledge and experience in the field of haptics and/or mechatronics; high motivation and independent as well as scientific working style; open-mindedness for interdisciplinary research and very good English skills.

Title of the post: EEG/MRI

Job profile: The ideal candidate will have expertise in human EEG/ERP, MRI, visual or auditory perception, psychophysical testing, and programming experience, and familiarity with computational and statistical methods related to imaging analyses.

Joining date: As soon as possible.

Number of posts: One (01)

Job description for Post 2 - EEG/MRI

Workplace: IIT Mandi iHub and HCI Foundation Office, SRIC Office, South Campus, IIT Mandi, VPO Kamand, District Mandi, Himachal Pradesh - 175075

Email: tih@iitmandi.ac.in | **Phone:** +91 1905 - 267132 | **Website:** <https://www.iitmandi.ac.in/TIH-HCI>



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A strong work ethic, excellent organizational and communication skills are expected. Willingness to learn new techniques or software environments and a strong foundation in neuroanatomy and neurophysiology is a plus.

Requirements: Candidates should have a PhD in cognitive neuroscience, physics, biomedical engineering, or related disciplines, and experience in conducting experiments and performing advanced data analysis with task-based EEG and/or MRI methods, including an ability to read and write code relevant to EEG and MRI data analyses.

Title of the post: Doctor (MD) in Radiology or Neuroscience (for fMRI and EEG analyses)

Job profile: The ideal candidate will have expertise in human EEG and fMRI, visual or auditory

Joining date: As soon as possible.

Number of posts: One (01)

Job description for Post 3 - Doctor (MD) in Radiology or Neuroscience

The objective of this position is to explore the Interaction of Radiation with Matter, Radiation Detection and Measurement, Radiography, Fluoroscopy, Computed Tomography, Ultrasonography etc. The prospective candidate must be willing to learn/ invent about the concerned domain and its various dimensions.

Requirements: The candidate must have an M.B.B.S. degree and expertise in X-rays, High Energy Radiation, Radiologic Technology, knowledge about numerous Medical Imaging Modalities for correlating various types of radiographic findings.

Title of the post: DL-ML, Graph Network, and RL

Job profile: The candidate must have expertise in Deep Learning and Machine Learning.

Joining date: As soon as possible.

Number of posts: Two (02)

Job description for Post 4 - DL-ML, Graph Network, and RL

The fundamental goal of this position is either to enhance existing framework(s) by including/reframing features or to invent new framework(s) by concerning the DL/ ML/ RL and NLP for the production of absolute scientific results and analysis with distinct research strategies.

Requirements: The candidate must have a Ph.D degree and expertise in Deep Learning, Machine Learning, Reinforcement Learning, Supervised/ Unsupervised Learning and Natural Language Processing etc. Working experience with MATLAB, OCTAVE simulators and programming with python will be advantageous.

Title of the post: Psychology, Perception, and Attention

Job profile: The candidate must have expertise in Human Psychology.

Joining date: As soon as possible.

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Number of posts: One (01)

Job description for Post 5 - Psychology, Perception, and Attention

The primary aim of this position is to innovate/invent various strategies in order to improve the understanding of how people form, store, and recall memories and transfer these notions for developing intelligent systems.

Requirements: The candidate must have a PhD degree in relevant domain and expertise in cognitive psychology, perception, human memory management. The candidate must have knowledge about all the major approaches viz. Experimental Cognitive Psychology, Computational Cognitive Science, Cognitive Neuropsychology, and Cognitive Neuroscience.

Candidates meeting the Qualifications and Experience may submit their details and CV online via the following link for their interview <https://forms.gle/8s4S91hcsUQZrBPp6>

Interviews would be conducted in an online mode, where there may be multiple rounds of interviews. The date and time of the interview and the online link will be shared by email with candidates before the interviews.

The decision of the Selection Committee regarding the interview logistics and selection process for the post will be final. The selection committee reserves the right to fill or not fill the advertised post. For any additional clarifications/information, please contact: tih@iitmandi.ac.in

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