iHub Faculty Fellowship at the IIT Mandi iHub and HCI Foundation

Applications are invited for the iHub Faculty Fellowship Program 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: The 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 and applications 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 http://iitmandi.ac.in/TIH-HCI/.

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 user’s needs. Important aspects of HCI include user-interface design and user-interface evaluation.

Job profile: The iHub faculty fellow would be called the “iHub Fellow” and the fellow would be affiliated for the duration of the fellowship with iHub at Indian Institute of Technology (IIT) Mandi. The fellow would pursue research at the iHub. Potential activities that the faculty fellow may engage in at the iHub may include:

- **Technology Development:** The iHub faculty fellow is expected to lead research and technology development at the iHub in areas concerning multisensory interfaces (MSI - audio, video, touch/tactile, smell/olfactory, and taste/gustatory) and/or brain-computer interfaces (BCI). The MSI area may involve the integration of multiple human senses in enhancing human experience; whereas, the BCI area may involve developing novel modes of HCI communication and neuro-feedback applications for specific kinds of human populations.
- **Skill and Human Resource Development (HRD):** Training and generating skilled manpower in the HCI and allied areas at the graduate, post-graduate, doctoral, and post-doctoral levels. This activity may include high-quality personnel training via both short-term (1-2 weeks long) and long-term (2-3 months long) workshops.
- **Entrepreneurship and Start-ups:** Mentoring start-ups and entrepreneurs-in-residence in the HCI area and beyond.
- **Collaborations:** Developing sustainable collaborations with industry and academia in India and abroad.

Joining date: As soon as possible.

Number of Fellowship: One

Minimum Qualification:

1. Candidates who have finished their Ph.D. in the past 2-years on the application deadline in computer science, cognitive science, neuroscience, or allied areas. Candidates need to have expertise in experimentation with human participants and analyses of multiple datasets involving
electroencephalography (EEG), functional magnetic resonance imaging (fMRI), transcranial magnetic stimulation (TMS), or transcranial direct current stimulation (tDCS).

2. Age limit: Preferably less than 35 years on the application deadline. Age will not be a bar for exceptionally qualified candidates.

3. Nationality of the candidate is not a constraint.

4. Demonstrate excellence in research through technology development, patents, and publications in top-tier journals/conferences.

Financial support:

- An attractive monthly fellowship (INR 1,00,000 - INR 1,50,000).
- A one-time contingency/research grant of up to INR 2,00,000.

Duration and continuation: The fellowship may last 1 year to 1.5 years and it may be extended beyond this period for another period based upon performance. The fellow will be evaluated at regular intervals by an internal review committee.

Application Areas

- Defense & Security
- Healthcare
- Environment & Agriculture
- Information Technology

Please structure your proposal, not exceeding 4 pages, in the following format:

1. Vision/Problem Description
2. Proposed Solution/Product
3. Literature review/Market Research
4. Methodology
5. Expected Deliverables
6. Timelines
7. References – You can provide certain references (could be on the 5th page).

While applying for this position, candidates should submit the proposals with at least one application area in mind or a combination of application areas as mentioned above.

What can you submit?

- Any research problem leading to papers, patents, products/solutions, IP creation in the next 1-1.5 years.
- Any novel, low-cost applications using off-the-shelf devices/products that you can think of for mass or niche usage in the applications areas.
- Any hardware/software product
Benefits of the fellowship program:

- Such fellows should be treated as independent researchers, and the received research grant will be considered as a project fund at iHub.
- The fellows are independent to work and spend their research grant according to the guidelines of the iHub. The iHub rules would be followed for purchases from the research grant.
- The fellows would follow the policies of the iHub for making purchases from their project(s) / research grant.
- The fellows would be hired by iHub directly and would be required to work on research and other activities of the iHub only.
- The facilities of IIT Mandi would be available to the fellow after the request is moved via a proper channel (involving the Project Director/CEO and/or the Directors of the iHub), and approval is obtained on this request.
- There would not be any teaching or research requirements for the fellows at IIT Mandi.
- The fellows need not guide research scholars at IIT Mandi, given the short duration of their fellowship.
- The fellows, if interested in regular faculty positions at IIT Mandi, need to apply for it at IIT Mandi as any other external candidate.

Candidates meeting the qualifications and experience may submit their details, CV and proposal online via the following link:

https://forms.gle/B75TGm9E2b4ZgYXUA

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