IIT Mandi iHub and HCI Foundation
CIN: U73100HP2020NPL008102

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

Project Associate positions at IIT Mandi iHub and HCI Foundation

Applications are invited Indian citizens for the post of Project Associates 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 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.ihubiitmandi.in

Details: Human-Computer Interaction (HCI), 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 joint performance by both humans and machines. Some important aspects of HCI are user-interface design and user-interface evaluation.

Title of the Post: Project Associate

Number of Posts: Three

Title of Project 1: Exploring continuous decoding of brain activity to text using EEG.

Job profile for Project 1: The Project Associate would be responsible for coding, training, and deploying various DL algorithms on the server that will form the core backend of the BCI - based applications.

Minimum Qualifications

- B.Tech in Computer Science Engineering/ IT /Electronics Engineering or allied areas.

Desirable Experience:

- Minimum of one year of relevant work experience in EEG Signal Processing or Time Series DL Modelling.
- Hands-on experience with requisite programming languages: Python, MATLAB, etc.
- Broad knowledge of DL packages such as Keras/ TensorFlow/ PyTorch
- Knowledge of data collection procedures for different Electro-physiological signals (EEG, fMRI).
- Experience in GUI & Mobile Android App development with a good experience in Backend: Django, MongoDB, MySQL; Frontend: Angular/ React/ JavaScript/or any other)
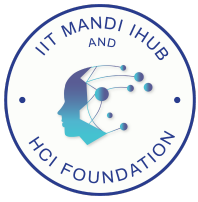
Duration: 6 months and extendible upon performance.

Joining date: As soon as possible.

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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The number of post: One

Salary: Up to INR 30,000

Title of Project 2: **Social skill development strategies for Human-robot interaction.**

Job profile for project 2: The Project Associate would be responsible for coding, training, and deploying various vision algorithms on the robot that will show different skill tasks for human-robot interaction.

Minimum Qualifications

- B.Tech in Computer Science Engineering/ IT /Electronics Engineering/Electrical Engineering or allied areas.

Desirable Experience:

- Minimum of one year of relevant work experience.
- Familiar with working on Robot Operating Systems (ROS).
- Experience with RGB-D sensors like Kinect, real sense is required.
- Hands-on experience with requisite programming languages (C++, Java, Python, MATLAB, etc.)
- Basic knowledge of humanoid robot and Human-robot interfacing algorithms.
- Ability to evaluate integrated systems (Simultaneous localization and mapping, getting the sensor information, URDF).
- Any other experience related to robotics and control.

Duration: 6 months and extendible upon performance.

Joining date: As soon as possible.

The number of post: One

Salary: Up to INR 30,000

Title of Project 3: Exploring the Relaxation effects of VR-based audio-guided meditation.

Job profile for project 3: The Project Associate would be responsible for experiment designing, conducting clinical trials, post-processing and analyzing the data, statistical analysis, and reporting the results.
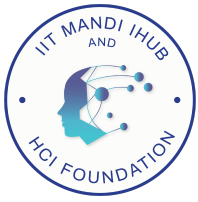
Minimum Qualifications

- B.Tech in Computer Science Engineering/ IT /Electronics Engineering or allied areas.

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Desirable Experience:

- Minimum of one year of relevant work experience
- Broad knowledge of conducting clinical trials in research in Human-Computer Interaction/psychology
- Good knowledge of using VR systems like Oculus Rift/HTC Vive, physiological data acquisition, and understanding of signal processing (EEG, ECG, EDA, etc.).
- Hands-on experience with requisite programming languages: Python, MATLAB, R, etc.
- Knowledge of different statistical tools like SPSS, R, JASP etc.

Duration: 6 months and extendible upon performance.

Joining date: As soon as possible.

The number of post: One

Salary: Up to INR 30,000

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

https://forms.gle/9uH2PQpEA3fDm8AA9   **Deadline: 15th November 2022 by 5 PM**

Interviews would be conducted in an online mode, where there may be multiple rounds of interviews. The date and time of this 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: hr@ihubiitmandi.in

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

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