IIT Mandi iHub and HCI Foundation

CIN: U73100HP2020NPL008102

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

Minutes of the 1ˢᵗ Hub Governing Body (HGB) meeting of the IIT Mandi iHub and HCI Foundation

Logistics

The first meeting of the HGB of IIT Mandi iHub and HCI Foundation was held on 4ᵗʰ February 2021 at 4:00 PM in A7 Conference room, IIT Mandi and online via Google Meet (https://meet.google.com/cro-idjb-qcc)

Attendance

Prof. Prem Felix Siril, Prof. Venkat Krishnan, Prof. Varun Dutt, Prof. Arnav Bhavsar, and Prof. Dileep A. D. attended the meeting from the A7 Conference room, IIT Mandi. Prof. Ajit Kumar Chaturvedi, Mr. Saurabh Mittal, Dr. Balamuralidhar P., and Dr. Sushil Chandra, joined via Google Meet online. Also, TIH-affiliated faculty members Dr. Aditya Nigam, Dr. Satyajit Thakor and Dr. Gopi Srikant Reddy also joined the meeting online. Dr. Murali Mohan (DST representative) excused himself due to an exigent meeting at Dr. Mohan's end.

Discussion and Decisions

Prof. Chaturvedi welcomed all the attendees for participating in the 1ˢᵗ HGB meeting of IIT Mandi iHub and HCI Foundation. First, everyone introduced themselves and then Prof. Siril presented the objectives and activities of the IIT Mandi iHub and HCI Foundation. This introduction was followed by the following agenda items:

HGB/01/2021/1. Reporting Items

a. A Section-8 company has been registered with the name IIT Mandi iHub and HCI Foundation for the purpose of the Technology Innovation Hub (TIH) in Human-Computer Interaction (HCI) area. This company will be headed by a minimum of three Directors, who would be the Directors of the company. Director, IIT Mandi, Dean (Sponsored Research and Industrial Consultancy & International Relations), IIT Mandi, and Principal Investigator NM-ICPS (TIH-HCI) project, will serve as the three directors of the company. The details of the company are available in Annexure – 1.

b. The Hub Governing Body (HGB) has been created and intimation has been sent to the HGB members including the Department of Science and Technology. The HGB will consist of 9 members: chairman, 3 personnel from industry, 3 personnel from academia, the DST mission director, and 1-member secretary. Please see Annexure

– 2 for the notification of the HGB.

c. The companies and institutions detailed in Annexure – 3 have been contacted for developing collaborations with the TIH. The IIT Mandi iHub and HCI Foundation has been able to establish a preliminary contact with the mentioned companies and institutions.

HGB/01/2021/2-Skill Development Workshops and Executive Training Programs

As part of the TIH, it is proposed to execute a number of short-term (typically few days) and long-term (typically few weeks) workshops and executive training programs in the

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areas of applied AI, deep learning, human computer interaction and others. As these are routine and recurring activities of the TIH, the HGB delegated the power of approving HRD and Skill Development Workshops to the board of directors of the company. Additionally, the HGB approved the process for workshop approvals as mentioned below:

Proposed process of workshop/training program approvals:

1. Coordinators/intenders of the workshop submit a form detailed in Annexure – 4.

2. The form may be recommended by the project director/CEO of the company.

3. The event may be approved by one of the Directors of IIT Mandi iHub and HCI Foundation.

HGB/1/2021/3 - Hiring of Manpower

It is proposed to hire a number of staff in the TIH (enclosed in Table-1 of Annexure –

5) as part of the IIT Mandi iHub and HCI Foundation. These positions and the respective salary structure are detailed in the detailed project report (DPR). The HGB approved the creation of these positions and the respective salary structure. It was also decided that after the initial approval on the positions listed in Table-1 of Annexure 5, any changes to position, number, and salary below the Manager level may be approved by the board of directors of IIT Mandi iHub and HCI Foundation.

The process of hiring manpower for different positions is also specified in Annexure-

5. The HGB approved this hiring process for different positions.

The HGB members also suggested that it may be good that the IIT Mandi iHub and HCI Foundation's board of directors formulate the company's human-resources policy specifying the processes of appraisals, increments, bonuses. This policy may evolve over time.

HGB/1/2021/4 - Call for proposals for the projects to be given out by the IIT Mandi iHub and HCI Foundation

The IIT Mandi iHub and HCI Foundation is supposed to fund projects for technology development in the HCI areas as per the approved DPR. The HGB approved the process for issuing call for proposals (CfP) on projects from the TIH as detailed in Annexure – 6a. The HGB also noted that the first CfP (Annexure – 6b) has been prepared already after due consultations with various stake holders such as experts, industries, and faculty members. The board of directors of IIT Mandi iHub and HCI Foundation may finalize and approve the first CfP. The HGB suggested that adequate visibility and publicity may be given to CfPs when being released by the IIT Mandi iHub and HCI Foundation.

It was suggested that IIT Mandi iHub and HCI Foundation may articulate its vision, mission, go-to-market strategy, and IP policy from the HCI – perspective and their relevance to society in the near future. These articulations would help the IIT Mandi iHub and HCI Foundation make research outcomes reach the society and help it become self-sustaining.

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Furthermore, the HGB suggested that the process for issuing CfPs should not get delayed due to the steps involved. It was agreed that the entire CfP process should get completed in a timely manner.

HGB/1/2021/5 – Delegation of financial powers and purchase policy

HGB activities involves payment of salaries, giving out research projects, purchase of various items and expenditure on account of projects, workshops, collaboration, and start-up activities. In order for the efficient operations of the company, the HGB delegated the different financial powers as per Annexure – 7a. Also, the purchase process of items detailed in Annexure – 7b was approved by the HGB.

HGB/1/2021/6 – Signing of MoUs with other companies, academic institutes and research labs.

The company is expected to collaborate with companies, academic institutes, and research labs to develop technologies and train manpower in the HCI related areas. As reported in the beginning, the IIT Mandi iHub and HCI Foundation has already held discussions with significant number of potential partners. It was suggested by the HGB that the IIT Mandi iHub and HCI Foundation may tie-up with business, international, and research chambers for defense and other applications. The HGB authorised the board of directors of IIT Mandi iHub and HCI Foundation to enter into partnerships and sign suitable agreements with partners.

HGB/1/2021/7 –Innovation, Entrepreneurship, and Start-up Ecosystem

There are number of innovations, entrepreneurship, and start-up activities that the TIH is expected to execute. The activities will include incubating companies, running and hosting entrepreneurs (entrepreneurs in residence), accelerating companies, and organizing grand challenges. These activities are planned to be executed currently via IIT Mandi Catalyst, which is an existing technology incubator on the IIT Mandi campus. The HGB authorised the board of directors of the IIT Mandi iHub and HCI Foundation to sign the MoU with IIT Mandi Catalyst. Additionally, the HGB authorised the board of directors of the company to transfer funds, as earmarked in the detailed project report (DPR) for these activities to the IIT Mandi Catalyst.

HGB/1/2021/8 - Purchase of a Supercomputer

An amount of INR 2 crores has been earmarked for year 1 in the DPR for the purchase of a supercomputer at the IIT Mandi iHub and HCI Foundation. For this purpose, the general specifications for the supercomputer are available in Annexure - 8. The HGB approved this purchase. Also, the HGB mentioned to have a longer-term view while purchasing computing nodes.

HGB/1/2021/9 – Assignment of a Project Director and Academic Representative

As the CEO is yet to be hired, Dr. Varun Dutt, Lead Coordinator, TIH Project, IIT Mandi is proposed to be designated as the Project Director of IIT Mandi iHub and HCI Foundation. He is also proposed to be the Member Secretary of HGB and he will have the responsibility for execution of TIH activities. Dr. Prem Felix Siril, Principal Investigator, TIH project, IIT Mandi and one of the Directors of IIT Mandi iHub and HCI foundation is proposed to be one of the Academic Representatives in the HGB of

Work place: 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 86279-74036 | **Website:**

IIT Mandi iHub and HCI Foundation

IIT Mandi iHub and HCI Foundation. The HGB approved the appointment of Dr. Varun Dutt as the Project Director and Member Secretary of HGB. In addition, the HGB approved the appointment of Dr. Prem Felix Siril as one of the Academic Representatives in the HGB.

General suggestions (HGB/1/2021/10):

The HGB also made some general suggestions, which included the following:

1. It may be worthwhile to create a role model for the IIT Mandi iHub and HCI Foundation. So, it may be worthwhile to answer the question: Who would we like to be?

2. It may be best if the IIT Mandi iHub and HCI Foundation develops its own culture, brand, and efforts in the HCI area aligned with its priorities.

3. The IIT Mandi iHub and HCI Foundation may want to strive to be at the forefront of the innovations happening in different HCI areas with respect to its priorities.

4. It was felt that the preparation and policies discussed in the meeting were good and IIT Mandi iHub and HCI Foundation now needed to put these words into practice.

The meeting ended with a vote of thanks to all the attendees by the Chairman, HGB.

……………………………..	……………………………..	……………………………..
Ajit Kumar Chaturvedi	Prem Felix Siril	Nagarajan Venkata Krishnan
Director	Director	Director
DIN: 08892058	DIN: 07334252	DIN: 08568074
Address: Director Lodge, IIT Roorkee, Roorkee, Uttarakhand-247667.	Address: C6-G1, IIT Mandi, Kamand, Mandi, HP-175005.	Address: Faculty Quarters C3 Block, IIT Mandi, PO Kamand, Mandi-175005, HP.
……………………………..	……………………………..	……………………………..
Dr. Balamuralidhar P.	Dr.Sushil Chandra	Mr. Saurabh Mittal
Principal Scientist & Head	Scientist 'G' & Addl. Director	Senior Advisor
TCS Innovation Labs	INMAS	IIT Mandi Catalyst.
	DRDO	

……………………………..	……………………………..
Dr. Varun Dutt,	Dr. Arnav Bhavsar,
Lead Co-ordinator	Co-ordinator
TIH, IIT Mandi	TIH, IIT Mandi

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Annexure - 1

Company Master Data

CIN	U73100HP2020NPL008102
Company Name	IIT MANDI IHUB AND HCI FOUNDATION
ROC Code	RoC-HimachalPradesh
Registration Number	008102
Company Category	Company Limited by Guarantee
Company SubCategory	Non-govt company
Class of Company	Private
Authorised Capital(Rs)	0
Paid up Capital(Rs)	0
Number of Members(Applicable in case of company without Share Capital)	200
Date of Incorporation	24/09/2020
Registered Address	IIT Mandi, Kamand, Mandi, Kataula Mandi HP 175005 IN
Address other than R/o where all or any books of account and papers are maintained	-
Email Id	shantanusrivastava90@gmail.com
Whether Listed or not	Unlisted
ACTIVE compliance	
Suspended at stock exchange	-
Date of last AGM	-
Date of Balance Sheet	-
Company Status(for efiling)	Not available for efiling

Charges

Assets under charge	Charge Amount	Date of Creation	Date of Modification	Status
	No Charges Exists for Company/LLP			

Directors/Signatory Details

DIN/PAN	Name	Begin date	End date	Surrendered DIN
07334252	PREM FELIX SIRIL	24/09/2020	-	
08568074	VENKATA KRISHNAN NAGARAJAN	24/09/2020	-	
08892058	AJIT KUMAR CHATURVEDI	24/09/2020	-	

Work place: 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 86279-74036 | **Website:**

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Annexure – 2

Indian Institute of Technology Mandi
Mandi-175001, Himachal Pradesh, India

भारतीय प्रौद्योगिकी संस्थान मण्डी
मण्डी–175001, हिमाचल प्रदेश, भारत

Ref.No.: IITM/DSRIC/02/2020/09-09   Dated: 07th September 2020

NOTIFICATION

In supersession of notification no. IITM/DST/PFS/288-10 dated 03.09.2020, the competent authority has approved the constitution of a Hub Governing Body (HGB) of the Section-8 company constituted for the Technical Innovation Hub (TIH) in Human - Computer Interaction as per the DST guidelines:

I. Prof. Ajit K. Chaturvedi, Director, IIT Mandi - Chairman

II. Academic Representatives:
1. Dr. Venkata Krishnan, Dean (SRIC & IR)
2. Dr. Varun Dutt, Lead coordinator, TIH, IIT Mandi
3. Dr. Arnav Bhavsar, Co-coordinator, TIH, IIT Mandi

III. Industry Representatives:
1. Dr. Balamuralidhar P., Principal Scientist & Head, TCS Innovation Labs
2. Dr. Sushil Chandra, Scientist 'G' & Addl. Director, INMAS, DRDO
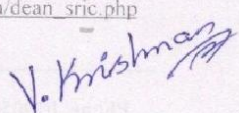3. Mr. Saurabh Mittal, Senior Advisor, IIT Mandi Catalyst

IV. Dr. K. R. Murali Mohan (DST representative), Mission Director, NM-ICPS; Scientist-G & Head, Frontier & Futuristic Technologies Division, DST

V. Dr. Prem Felix Siril, PI (Member Secretary)

Terms & Conditions

1. The quorum of the HGB will be 1/3rd of its members including the Chairman, HGB.

2. Meetings of the HGB may be held from time-to-time as and when needed. Members of the HGB may attend these meetings virtually or physically in person.

3. Co-PIs of the NM-ICPS TIH in HCI project, beyond those serving as academic members in the HGB, may attend the meetings as special invitees to the HGB.

4. The Head of the Host Institute (Director, IIT Mandi); Dean (SRIC & IR); PI/Project Director/CEO, TIH; and Mission Director (or a representative), Mission Office, DST would be ex-officio members of HGB based upon their position at IIT Mandi and DST, respectively.

5. The industry and/or academic members of HGB may continue to be members for a period of 1-year after appointment to the HGB. These industry and/or academic memberships may be renewed for time-to-time by the Chairman, HGB.

6. Additional members may be included in the HGB with the approval of Chairman, HGB.

7. The membership of the Mission Director (or a representative), Mission Office, DST would be for a total period of 5-years from the date of start of the TIH project under the section 8

Phone: 01905-267065 Website: http://www.iitmandi.ac.in/administration/dean_sric.php

V. Krishnan

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Indian Institute of Technology Mandi
Mandi-175001, Himachal Pradesh, India

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company created for this purpose. This membership will expire after the 5-year period unless specifically renewed by the Chairman, HGB.

8. The HGB shall be the apex body for overall supervision, control, directions and mid-course correction in the implementation of the TIH for a period of 5-years from the date of start of the TIH project under the section 8 company created for this purpose. During this period of 5-years, the HGB will follow the terms of reference outlined in the DST letter dated 3rd March 2020 to Director, IIT Mandi (DST/NM-ICPS/MGB/2018). These terms of reference may change in discussion with DST anytime during the 5-year period and may change with the quorum of the HGB after the expiration of the 5-year period.

V. Krishnan

Dean (SRIC and IR)
Indian Institute of Technology Mandi
VPO Kamand, District Mandi,
HP, India – 175075.

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Annexure – **3**

Table A3: Name of the companies which have been contacted for collaborations.

S. No.	Name of the Company
1	Microsoft Research India, Bengaluru
2	Google Research India, Bengaluru
3	Tata Consultancy Services (TCS) Innovation and Research, Bengaluru, New Delhi
4	Wipro, Bengaluru
5	Cognizant Technology Solutions, Bengaluru
6	Webstaff India
7	NetBramha UI/UX Studio, Bengaluru
8	Think Design Collaborative, New Delhi
9	Pinktech Design, New Delhi
10	Thence, Bengaluru
11	Peepal Design, Bengaluru
12	Lemon Design Pvt. Ltd., Pune
13	Threye, New Delhi
14	Lollypop UX/UI Studio
15	TouchMagix Studios, Pune
16	Elixar Systems, Pilani, Rajasthan
17	American Express
18	Artinis Medical Systems
19	Unity3D technologies
20	ANT Neuro
21	MathWorks
22	Aindra,
23	Adobe
24	RxDataScience,
25	Defence Research and Development Organisation (DRDO)
26	Postgraduate Institute of Medical Education and Research (PGIMER)
27	National Disaster Management Authority (NDMA)
28	National Mission on Himalayan Studies (NMHS)
29	National Technical Research Organisation (NTRO)
30	Ministry of Electronics and Information Technology (MeiTY)
31	C-DAC Mohali, C-DAC Kolkata, C-DAC Bangalore,
32	Regional Forensic Science Laboratory (RFSL)
33	Army Training Command (AR-TRAC)
34	Research & Development Establishment (R&DE)
35	Bioedha
36	NMSWorks Software Private Limited
37	Carnegie Mellon University (CMU)
38	Norwegian University of Science and Technology (NTNU)
39	London Metropolitan University (London Met)
40	Indraprastha Institute of Information Technology (IIIT) Delhi

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Annexure - 4

A Proposal
to conduct <u>National/International Workshop/Short- term Course/Symposia/Conference etc.</u>

on

(Title)
(Duration-------From--------- To -----------------)

Submitted to

IIT Mandi iHub and HCI Foundation

By

(_____) Coordinator(s)

Department Name

Institute Name

IIT Mandi iHub and HCI Foundation

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SEEKING APPROVAL TO CONDUCT/SUPPORT AN *EVENT*

1. (a) Title / Name of the **Event:**

   (b) Major discipline in which it falls: (c) Period:

   (c) Coordinator(s) and School:

2. List of various sessions planned and attached: Yes ( ) / NO ( )

3. (a) Objective and Scope in organizing the Workshop in the context of the present-day national needs:

Objectives (Max. 250 words):

Target Audience:

4. Funding from other sources:

S.No.	Name of the Agency	Amount requested/sanctioned

5. Total delegates expected to participate:
a) Delegates from India: no(s)
b) Delegates from abroad*:   no(s)
c) From IIT Mandi iHub and HCI Foundation: no(s)

6. Likely speaker(s) delivering invited talks and sessions

S.No.	Names of the speakers
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	

*Permission from Ministry of External Affairs is necessary.

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7. Total anticipated expenditure under the following heads:
   (a) TA/DA:
   (b) Pre-Conference printing (announcements, abstracts etc.):
   (c) Stationery:
   (d) Secretarial Assistance:
   (e) Publication of proceedings:
   (i)   No. of pages:
   (ii)   No. of copies to be printed:
   (iii)   Estimated expenditure:
   (f) Boarding and Lodging of delegates:

TOTAL of (a) to (f):
8. Total anticipated income out of the following:

   (a) Registration fee of the delegates:
   (b) Sale of proceedings to be published:
   (c) Any other income / grant:

TOTAL of (a) to (c):
9. Grant requested from IIT Mandi iHub and HCI Foundation (if any):
10. Any other information which you may like to add:
11. I/We understand that overheads @ of 5% gross receipts (registration fees only) is

payable to IIT Mandi iHub and HCI Foundation corpus funds.

Sincerely,

(Co-ordinators/Indenters)

Project Director/CEO

Approved/Not Approved

A Director of the Company

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Annexure - 5

Table 1: Manpower with consolidated salary in the TIH

S. No.	Position	Numbers	Starting Salary/month (in lakhs)
1	CEO	1	up to 2.5
2	Senior Advisor (Contractual/Part-time)	1	up to 1
3	Project Manager	4	up to 0.7
4	Associate	8	up to 0.5
5	Technical Staff	2	up to 0.25
6	Office Assistant	2	up to 0.20
7	Office Attendant	2	up to 0.15
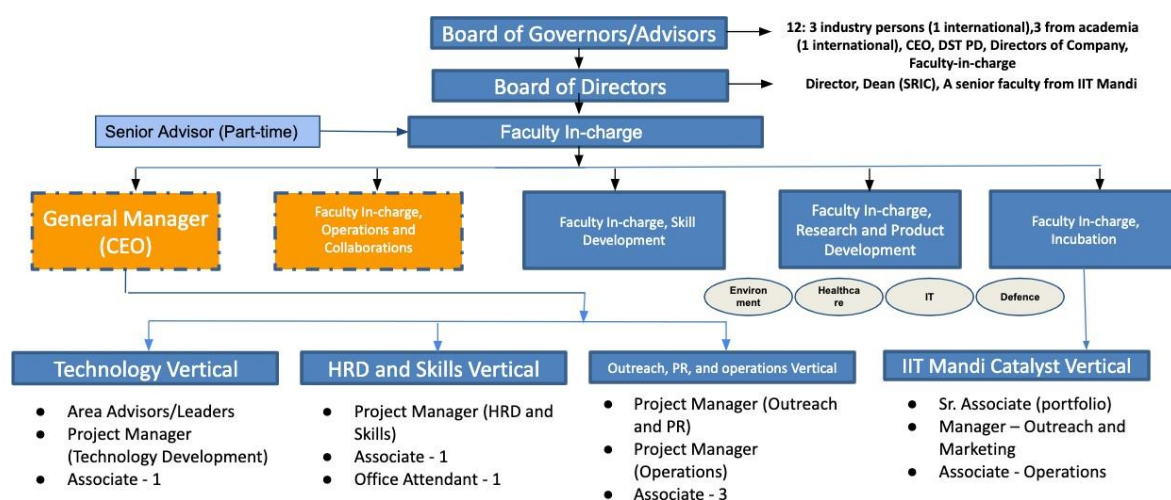
Figure 1: Organization structure chart for Year 1

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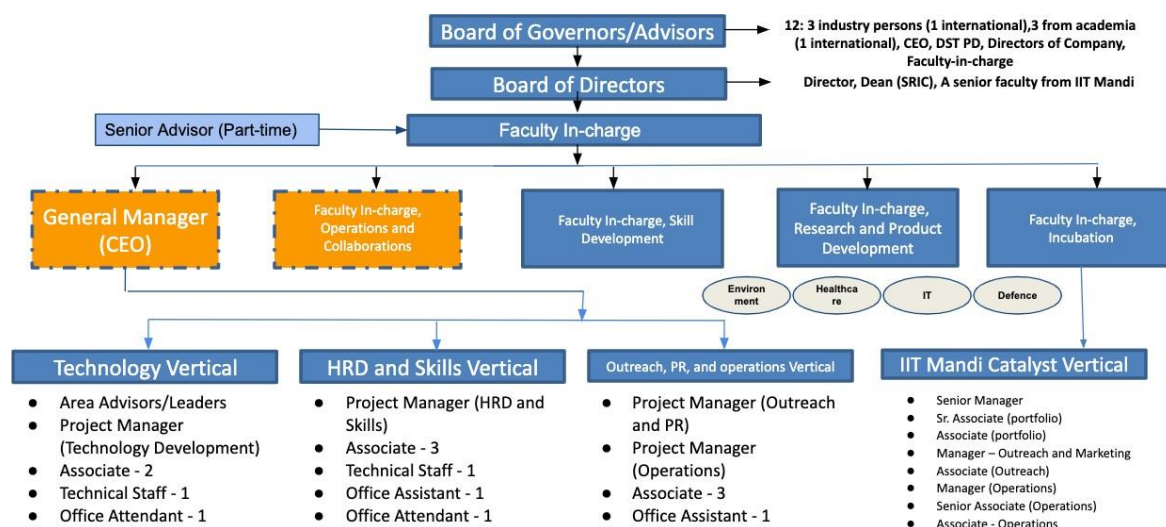
Figure 2: Organization structure chart for Year 2

Hiring Policies

a.   Creating a Position

i.   Creation of long-term positions at the senior level (e.g., staff like the CEO, Senior advisor, or Project Manager for a period greater than 6-months) as detailed in the detailed project report (DPR) needs to be approved by the Hub Governing Body (HGB) of IIT Mandi iHub and HCI Foundation. However, long-term positions at the junior level as detailed in the DPR (e.g., Associate, Technical Staff, Office assistant, Office attendant etc.) may be approved by the board of directors of the company. All temporary hiring of lower-level staff (e.g., Intern or Outsourced staff for a maximum period of 6-months) may be approved by one of the directors of IIT Mandi iHub and HCI Foundation, may approve such a temporary hiring.

ii.   Recruitment process:

1. Mode of applications:
    Online/Offline applications may be invited
2. Stages in selection process:
a. The selection committee may follow a multistage screening process that may include application screening, telephonic screening, in person/online interview, reference checks, etc.
b. The selection committee recommends the hiring and the duration of appointment at a position based upon the hiring process.
c. The final hiring is approved by the board of directors of the company for senior positions at manager/CEO level or higher or equivalent position(s). For other positions, one of the directors of IIT Mandi iHub and HCI Foundation, may approve such a temporary hiring.

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3. Selection committee
a. A selection committee is approved for hiring against an approved position by at one of the directors of the company.
b. The selection committee should include at least three members that may include board of directors of IIT Mandi iHub and HCI Foundation, TIH affiliated faculty or IIT Mandi faculty member(s) and / or external invited members
   i. For hiring at manager/CEO level or higher or equivalent position(s), the candidates will be presented and interviewed by the board of directors along with other experts.
   ii. For other positions, the selection committee may comprise as mentioned above in point 3b.

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Annexure - 6a

Proposed process of Call for Proposals:

1. A brain storming meeting has done where IIT Mandi faculty and/or external experts from academia and industry suggested areas/themes for the call for proposal. These areas/themes have aligned with the vision and focus area of the TIH. The detailed project report also be consulted to ideate upon areas/themes for the call for proposal.
2. Based upon point 1, the call for proposal draft is prepared by the TIH management in discussion with the respective faculty-in-charge(s).
3. The call for proposal is recommended by the project director/CEO/faculty-in-charge(s) of the IIT Mandi iHub and HCI Foundation.
4. The call for proposal is approved by one of the directors of the IIT Mandi iHub and HCI Foundation, approved the call for proposals.
5. Upon approval, the call for proposal is posted online on the TIH and IIT Mandi websites. Also, adequate publicity is made for the call for proposals as needed.
6. A screening, shortlisting, and a selection committee consisting of at least three experts is approved by one of the directors of IIT Mandi iHub and HCI Foundation. The screening committee included managers and associates with a TIH-affiliated faculty or a faculty member(s) of IIT Mandi. The shortlisting and selection committee included TIH-affiliated faculty, faculty member(s) of IIT Mandi, Project Director/CEO, and/or external experts (1 member secretary was a staff at the level of manager or associate for preparing minutes).
7. Upon receipt of proposals against the call, a check is made by the screening committee whether the same proposal is not submitted to other TIHs in India or not. Also, the screening committee checks whether the proposal is complete and as per format as well as the suitability of the proposal in terms of the goals of the IIT Mandi iHub and HCI Foundation. Incomplete proposals or proposal not suitable to the goals of the IIT Mandi iHub and HCI Foundation dropped from further consideration.
8. A panel of experts to review proposals is created by the TIH management and it is approved by one of the directors of IIT Mandi iHub and HCI Foundation.
9. A list of two experts is drawn from the approved panel for each received proposal by the shortlisting committee. Proposals are sent for review to the selected reviewers. The proposers (at the time of proposal submission) and reviewers (before beginning the proposal's review) need to outline any conflicts of interest.
10. Project proposals are peer-reviewed by selected experts.
11. The shortlisting committee recommends peer-reviewed proposals for presentations based upon the peer-review and comments. It is expected that some proposals are not recommended for presentation after peer-review.
12. The shortlisting committee submits its recommendations for approval to one of the directors of IIT Mandi iHub and HCI Foundation.
13. The approved proposals are invited for presentations by the selection committee.
14. Based upon presentations, proposals are recommended for approval by the selection committee. The final approval is given by the board of directors of IIT Mandi iHub and HCI Foundation.
15. Sanction orders are issued and approved project proposals are reviewed periodically. It is expected that principal investigators would submit progress reports every quarter and would be asked to make review presentations every six-months. The review process involved a minimum of three experts and the composition of the review committee approved by one of the director of IIT Mandi iHub and HCI Foundation, approved.

Work place: 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 86279-74036 | **Website:**

IIT Mandi iHub and HCI Foundation

CIN: U73100HP2020NPL008102

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

Annexure – 6b
IIT Mandi iHub and HCI Foundation under National Mission on Interdisciplinary Cyber Physical System (NM-ICPS)

Call for Proposal – HCI Applications in Environment, Healthcare and Information Technology

<u>Last Date of Submission of Proposals: Date/Month/2020</u>

IIT Mandi iHub and HCI Foundation at Indian Institute of Technology Mandi under Department of Science and Technology (DST)'s NM-ICPS is inviting research proposals in human computer interaction (HCI) areas in the following three different domains:

1. Environment: The proposals in the environment domain may address problems concerning landslides for development and evaluation of interfaces for human decision making. Research projects in this domain may require the development and evaluation of interfaces for visualization of field-based data and/or satellite data for landslide monitoring, warning, and prediction. The research project may focus on the Himalayan mountains in Himachal Pradesh.

2. Healthcare: The proposals in the healthcare domain may perform development and evaluation of interfaces for human decision making in the following areas: CAD for digital pathology, CAD for neuro-radiology, and augmented reality for disease mitigation. The research proposals in CAD for digital pathology may perform the development and evaluation of interfaces for efficient triaging, screening, labeling large volumes of whole-slide images. This research may focus on all healthcare domains involving pathology support (e.g., Biopsies Cytology). The research proposals in CAD for neuro-radiology may involve the development and evaluation of interfaces for interactive processing and visualization for high-density fiber tracking (HDFT) for diffusion-MRI imaging. It also involves the development of a software interface for analysis of structural and functional networks for MR based neuroimaging. The research proposals in augmented reality for disease mitigation may involve the identification and analysis of diseases through eyes. It may involve the development of desktop/mobile based applications to help healthcare personnel and patients. Overall, the research projects under the healthcare domain may be useful for on-time disease identifications and for applications like brain surgery and brain disorders requiring DTI and fMRI technologies.

3. Information Technology: The proposals on information technology may address problems concerning the interface development and evaluation in telecom networks for improved human decision making. The research project in this area may require diagnosing and predicting faults in telecom networks. The focus may be on developing interfaces for visualization of descriptive and predictive analytics for network management in the telecom sector. This project maybe beneficial to a large number of telecom operators as well as network management companies at the national level.

Eligibility Criteria:
The proposals have to be submitted by faculty/scientists working in regular position in recognized Academic Organization/Public funded R&D Institution/ Laboratories. Central Government/State Government supported or recognized (Public or Private) academia,

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National/State funded R&D Labs in partnership with S&T based voluntary organization, or DSIR recognized SIRO organization. These institutions may partner with industry organizations for submitting the project proposals (industry collaboration is encouraged; however, not mandatory).

Project Duration:
Project shall be for three years duration.

Steps to follow for submission of the proposal:
a) Download the prescribed format (format).
b) Prepare the proposal in Word Document.
c) Send the scanned proposal duly signed by head of the organization along with enclosures in PDF format to tih@iitmandi.ac.in
d) Incomplete proposals are liable for rejection.

For any further information, please contact: Dr. Prem Felix Siril, Director, IIT Mandi iHub and HCI Foundation, Associate Professor, Indian Institute of Technology Mandi, Kamand, Himachal Pradesh, India. Tel: +91-1905-267851, E-mail: tih@iitmandi.ac.in.

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Indian Institute of Technology Mandi

Mandi–175001, Himachal Pradesh, India

भारतीय प्रौद्योगिकी संस्थान मंडी

मंडी - 175001, हिमाचल प्रदेश, भारत

To

10.08.2020

Dean (SRIC & IR)
Indian Institute of Technology Mandi
Kamand, Himachal Pradesh, India – 175075

Subject: Requesting approval for releasing call for research proposals under TIH in HCI

Dear Venkat,

This file contains a call for proposals (CfP) document, which will be used to request grant proposals from eligible institutions under the TIH in HCI. The format for the call for proposals has been taken from the DST ICPS website here: https://dst.gov.in/application-formats

The CfP was prepared by the TIH Faculty and Staff, Dr. Varun Dutt, and Dr. Arnav Bhavsar and this document was discussed with me. We need your kind approval to post it on the TIH website. The process of proposal submission and evaluation will be done after your approval and the final projects will be given out only once the section 8 company hosting the TIH gets registered.

I would request your kind approval on the attached CfP document.

Yours sincerely,

Prem

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Dr. Prem Felix Siril, M.Sc., Ph.D.
Project Investigator, TIH in HCI
Associate Professor
School of Basic Sciences
Indian Institute of Technology Mandi
Kamand, Himachal Pradesh, India – 175075

Approved
V. Krishnan
Aug. 13, 2020

IIT Mandi iHub and HCI Foundation

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Annexure – 7a

Financial approval limit for competent financial authorities (CFA) & Approval chart:

✓ CFA will be responsible for financial approvals for all TIH related expenditure including purchases.

Amount	Approving authority	Signing Authority for bank payments
Up to INR 50,000	Faculty-in-Charge/Project Director/CEO of IIT Mandi iHub and HCI Foundation	Finance Officer, IIT Mandi. One of the directors of IIT Mandi iHub and HCI Foundation.
INR 50,000 – INR 3,00,000	One of the directors of IIT Mandi iHub and HCI Foundation.	Finance Officer, IIT Mandi. One of the directors of IIT Mandi iHub and HCI Foundation.
Above INR 3,00,000 - INR 50,00,000	Board of Directors of the company	Finance Officer, IIT Mandi Finance Officer, IIT Mandi. Two directors of IIT Mandi iHub and HCI Foundation.
Above INR 50,00,000	HGB	Finance Officer, IIT Mandi. One of the directors of IIT Mandi iHub and HCI Foundation. Director, IIT Mandi.

The Authorised Officers be and are hereby authorized severally to sign, execute and finalize all such documents as required for the operation of the above bank accounts effectively and efficiently.

The abovementioned authorization shall be effective unless revoked by the Board or cessation of the employment of the authorized persons with the IIT Mandi iHub and HCI Foundation or IIT Mandi.

IIT Mandi iHub and HCI Foundation

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Annexure – 7b

Purchase Policy

i.   **General Purchase process:**

a.   A purchase will be initiated by purchase requisitions to the appropriate CFA indicating the purpose thereof. CFA will approve the purchase.

b.   All purchases above INR 50,000 will be recommended by a purchase committee. However, purchases up to INR 50,000 can be made without the recommendation of a purchase committee.

c.   Purchase committee should have at least 3 members which included manager, TIH-affiliated faculty, faculty member(s) of IIT Mandi, and/or invited expert member(s).

d.   Committee to obtain quotations from three vendors and compared on the basis of pricing, quality, reputation of vendor, and/or other important parameters. Due diligence would be made by the intenders and/or by the purchase committee while making the purchase.

e.   Recommendation is forwarded to CFA for final approval.

f.   All such purchases of value above INR 50,000 to be done through Purchase Orders.

ii.   **Additional conditions depending on the value of purchase to be made:**
      a. For items above INR 300,000
      Board of directors of the company will process the purchase via Government e-marketplace (GeM) or tendering. Special purchase committee including external experts formed for high value purchases.

b.   **For items between INR 50,000 and INR 300,000**
      Due diligence will be done by a purchase committee by inviting/collecting quotations.

c.   **For items up to INR 50,000**
      Direct purchase without need of Purchase Order. Due diligence will be done by the indenter who will certify the reasonability of price and quality of items.

iii. **Stock check**

1.   Stock check to be done every 6 months before July 31st and Jan 31st of the calendar year

2.   Committee: Project Director/CEO, manager, and associate

iv.   **Petty Cash – Imprest**

Manager is eligible for an imprest cash of INR 20,000.

Associate is eligible for an imprest cash of INR 10,000.

Any other employee with approval of Project Director/CEO.

v.   **Imprest settlement**

An employee has to settle imprest every two months by submitting bills

Process of taking imprest

Employee needs to fill imprest form and submit it to the manager. Manager can recommend the same to the Project Director/CEO/faculty-in-charge for approval.

Work place: 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 86279-74036 | **Website:**

IIT Mandi iHub and HCI Foundation

Annexure - 8

General Specifications for a Supercomputer

Purpose: A supercomputer is required for Artificial Intelligence (AI), Machine Learning, and HCI based applications, with the best configurations available in terms of:

1. A high-end processor with 120+ cores and 2.25+ GHz clock speed

2. Performance: 3 to 5 PETAFLOPS OR MORE for AI and 6-10 PETAFLOPS OR MORE for INT8

3. Graphics card: 8 OR MORE @ 32GB per card OR BETTER