



# IIT Bhilai Innovation and Technology Foundation

IIT Bhilai, Transit Campus - Govt. Engineering College, Old Dhamatari Rd,  
Sejbahar, Chhattisgarh (492015)

**Call for Proposal for Chair Professor**  
**under**  
**Technology Incubation Hub (TIH) of the National Mission on Interdisciplinary Cyber-Physical**  
**Systems (NMICPS)**  
**For**  
**IIT Bhilai Innovation and Technology Foundation (IBITF) in FinTech Technologies for FY 2023-24**

The Technology Innovation Hub (TIH) at IIT Bhilai is one of the 25 hubs set up under the National Mission of Interdisciplinary Cyber-Physical Systems (NM-ICPS) program of the Department of Science and Technology. The TIH at IIT Bhilai is the nodal centre for spearheading Entrepreneurship, Research and Development, HRD and Skill development, and collaboration-related activities in the area of Financial Technologies. IIT Bhilai Innovation and Technology Foundation (IBITF) is a Section 8 company responsible for executing the activities of TIH.

## About the Program

To honour & provide support as well as to gain knowledge and guidance in research from the expertise in the domain of CPS, the Chair Professor program is introduced by TIH-IIT Bhilai. IBITF Chair Professor Program for Industry Personnel/distinguished faculty is a position for industry professionals having extensive experience in the field of Financial Technologies, particularly with respect to entrepreneurship, Start-up Mentorship, emerging technologies, etc.

Industry professionals/ distinguished faculty, who have demonstrated excellence in research through technology development, patents, and publications in top-tier journals/conferences, in the broad domain of Cyber-Physical Systems are encouraged to apply for this program. This Position is meant for Industry Experts/ distinguished faculty who are interested in playing a leadership role in their areas of research and working under IBITF.

Potential areas of research interest for the HUB include, but are not limited to:

<b>Internet of Things (IoT)</b>	<b>Blockchain Technology</b>
<ul style="list-style-type: none"><li>● Security of IoT Framework for Fintech Solutions<ul style="list-style-type: none"><li>○ Standardization of Cyber Security for IoT Devices</li><li>○ Access Control</li><li>○ Lightweight Cryptography</li><li>○ Secured Data Collection</li></ul></li><li>● IoT-based Fintech Products<ul style="list-style-type: none"><li>○ Biometric Authentication Systems</li><li>○ Smart ATMs</li></ul></li></ul>	<ul style="list-style-type: none"><li>● Design and Analysis of Structural components of Blockchain for FinTech<ul style="list-style-type: none"><li>○ Consensus Algorithms</li><li>○ Smart Contracts</li><li>○ Hybrid Platforms</li><li>○ Searchable Encryption</li><li>○ Integration with Hardware</li></ul></li><li>● Applications of Blockchain for Fintech Products<ul style="list-style-type: none"><li>○ Secure Digital Identity Management</li><li>○ Risk analysis and Assessment</li></ul></li></ul>

<ul style="list-style-type: none"> <li>o Wearable Devices</li> <li>• Testing and Validation of IoT framework <ul style="list-style-type: none"> <li>o Hardware-Software Embedded Testing</li> <li>o Compatibility testing</li> <li>o Data Integrity Testing</li> <li>o Interface Testing</li> <li>o Communication Protocol Testing</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>o Micro Loans</li> <li>o Energy Trading</li> <li>o Intelligent Agriculture</li> </ul>
<p><b>Artificial Intelligence</b></p> <ul style="list-style-type: none"> <li>• Improving User Experience Through Process Automation <ul style="list-style-type: none"> <li>o Portfolio Management</li> <li>o Recommender System</li> </ul> </li> <li>• Efficient AI Models for FinTech Applications <ul style="list-style-type: none"> <li>o Feature Selection and Ranking</li> <li>o Prediction Models</li> <li>o Handling Dynamic and Unstructured Data</li> </ul> </li> <li>• Security <ul style="list-style-type: none"> <li>o Anomaly Detection Systems</li> <li>o Efficient Classifiers</li> </ul> </li> </ul>	<p><b>E-Payments System</b></p> <ul style="list-style-type: none"> <li>• Popularizing e-Payments <ul style="list-style-type: none"> <li>o Rural Applications</li> <li>o Urban Applications</li> <li>o Small Retailers</li> </ul> </li> <li>• Utility Services and e-Payments <ul style="list-style-type: none"> <li>o Utility Service Payments</li> <li>o Water, Electricity, Waste Management,</li> <li>o Sewage Disposal</li> <li>o Public Transport</li> </ul> </li> <li>• User-Friendly e-Payments <ul style="list-style-type: none"> <li>o Minimal Human Intervention</li> <li>o Unified Payments System</li> <li>o Low-Cost Platforms</li> <li>o Enhanced Security</li> </ul> </li> </ul>

**Roles and Responsibilities:**

- Technology Leader – Play a leading role in the broad domain of Financial Technology and work closely with the IBITF for the development of identified Financial Technologies and Application areas.
- Translational Research Ecosystem – IBITF Chair Professor will help in developing the Translational Research Ecosystem strategy for the IBITF.
- Idea Generator for CPS Policies and Programs – To provide innovative ideas for implementation of the Cyber-Physical Systems policies and programs.
- Stakeholder Interaction – To propagate IBITF in Academia, Government Departments, Research Centres, Industries, etc by representing IBITF. To participate in the conferences, and workshops and increase the visibility of IBITF in such events.

## Eligibility Criteria

- The position is open for
  - Industry experts/distinguished faculty with an established record of teaching, an exceptional record of published research in high-quality journals, including the guidance of Ph.D. students, and demonstrated ability to attract significant research funding as well as having the ability to lead teams in multidisciplinary projects.
- The applicant should be an outstanding industry professional of repute with rich experience or Researcher with a Doctoral degree or equivalent degree in any area of basic Sciences or Engineering related to the mentioned vertical.
- The applicant should not be receiving any other fellowship from any other Government sources.
- All through first class is essential as academic qualifications.

## Support

- Fellowship Grants (80,000/- per month + 2.2 lakh for other professional expenses for three years) (consolidated). If selected, the applicant cannot avail of any other fellowship in parallel.
- Duration 24 Months and can be extended further depending on progress.
- The support for travel for attending the meetings/conferences/workshops(as per the applicable rules)

## How to Apply

Interested applicants are encouraged to apply through the following link:

[https://docs.google.com/forms/d/1NZ-YDAJOyOd\\_4Eopddd-8TL0OWsne0HHuhP0\\_7H67rg/edit](https://docs.google.com/forms/d/1NZ-YDAJOyOd_4Eopddd-8TL0OWsne0HHuhP0_7H67rg/edit)

## Note: Please be ready in the following order to fill the application

- Recent CV of the Applicant
- Statement of Purpose with a brief outline of the applicant's work, and how he/she fits into the role.
- Official contact details of two referees for recommendation letters
- NOC from the parent organization if the applicant is in service.

## Contact

For any queries related to the application process, please write to us at [tih@iitbhilai.ac.in](mailto:tih@iitbhilai.ac.in)

## **Terms & Conditions**

- The Technology Innovation Hub reserves the right to terminate the fellowship due to unsatisfactory progress.
- The Technology Innovation Hub reserves all rights to revise the eligibility criteria and reject any proposal without assigning any reason at any time.

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