

# IIT Tirupati Navavishkar I-Hub Foundation

# **iNiF CHANAKYA-Graduate Internship**



# About iNiF



To harness the potential of the next generation technologies and make India a leading player in Cyber-Physical Systems (CPS), the Union Cabinet approved the National Mission on Interdisciplinary Cyber-Physical Systems (NM-ICPS) to be implemented by DST. The Mission aims to create a strong foundation and a seamless ecosystem for CPS technologies by coordinating and integrating nationwide efforts encompassing knowledge generation, translation research, technology, product development, human resource development, innovation & commercialization standards, and international collaborations. IIT Tirupati Navavishkar I-Hub Foundation (iNiF), a not-for-profit Section-8 company, has been set up to host the Technology Innovation Hub (TIH) in Positioning and Precision Technology (PPT).

Positioning and Precision Technologies (PPTs) are indispensable tools for monitoring, integrating, and analyzing spatially and temporally distributed resources to aid in effective decision-making across multiple domains. The TIH on PPT at IIT Tirupati will provide a unique platform for researchers, industries, stakeholders and end-users across multiple disciplines. The TIH aims to become a top contributor to many Government of India initiatives such as Make in India, Atmanirbhar Bharat Abhiyaan and making India a self-reliant in PPT. The TIH on PPT will contribute in i) technology development; ii) applications; iii) human resource development; iv) start-ups; and v) international collaborations. The Hub will majorly focus on: 1) Developing atomic clocks for GPS and navigation systems and its applications; 2) Defence applications; 3) Precision agriculture; 4) Indoor positioning systems; 5) Disaster management; 6) Resource management; 7) Image processing; 8) Smart cities.

### **About CHANAKYA-Graduate Internship**

iNiF, DST and IIT Tirupati believe that human resource development has to be the heart of the NM-ICPS which includes encouraging and involving students and faculty of the technical institutes to solve industry problems, training graduates to fill the gap between academia and industry, creating pool of trained professionals. The goals of HRD can be ensured under the programme Comprehensive and Holistic Advancement of National Knowledge Yield and Analytics (CHANAKYA). iNiF at IIT Tirupati invites innovative and entrepreneurial ideas from motivated students for CHANAKYA-Graduate Internships who would like to work in the broad areas of Positioning and Precision Technology.

#### Call for Proposal from UG students

Proposals are invited from individual UG students or a team of UG students (maximum 3 students from different disciplines) in the following verticals.

#### **TIH-PPT Verticals**

- Remote Sensing and Image Processing
- Quantum Technologies for Positioning
- Natural Resource Management
- Smart and Sustainable Cities
- Defence Applications

- Imaging Spectroscopy
- Precision Agriculture
- Disaster Management
- **Visualization Tools**

### **Eligibility Criteria**

- B. Tech./B.E. Students of any discipline in their 5th to 7th Semester of their degree can apply
- A minimum 7.5 CGPA or 75% equivalent must be obtained till the last semester
- Integrated M.Sc./B.S.-M.S. and equivalent students in their 3rd to 6th semester are also eligible to apply
- The student must be enrolled in an CFTI or UGC/AICTE approved institution

#### **Project Selection Process**

- Based on the originality, contributing to solving locally and socially relevant problems aligned with PPT
- Project proposal includes problem statement, technical merit, feasibility, project plan, milestones and outcomes

## **Project Monitoring Process**

- Monthly progress report and bi-monthly presentation
- Fellowship is strictly subject to satisfactory progress during reviews

#### **Opportunities**

- Performing experiments in TIH Laboratories
- Attending workshops/seminar/colloquium during the project period
- Conference fee concession for TIH organized conferences
- Student member of TIH
- Funds to create startup or incubation based on technology ready outcomes
- Interact with industries working on the PPT domain

#### For More Details and FAQ

https://tihppt.iittp.ac.in/faq.html

Proposals are invited with original ideas from UG students to solve socially relevant problems aligned with PPT

Monthly Internship: Rs. 10, 000/- per month (includes stipend, contingency and travel)

**Maximum Duration of the Internship: 10 Months** 

Proposal template can be downloaded from https://tihppt.iittp.ac.in/CHANAKYA-UG-Internship-Template.docx

**Deadline for Proposal Submission 6 January 2022** 

Proposal should be uploaded in the following URL: https://forms.gle/QAzMwqLh3jrj9Cfg9



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