

Call for Post-Doctoral Program under TiH-IoT CHANAKYA Fellowship 2023

Prof. Vivek Ashok Bohara, IIIT-Delhi would like to hire post-doctoral fellows under the TiH-IoT CHANAKYA Post-doctoral Fellowship program 2023.

The fellowships will support motivated young researchers in the area of Cyber-Physical Systems and groom them as independent researchers. We invite innovative and rich-in-technology project proposals from motivated research scholars who would like to work in the broad areas of CPS.

Problem Statements

1) Next Generation of Internet Vehicles (IoV)

IoV has gained considerable attention as an integral component of future intelligent transportation systems for facilitating sensing and communications between vehicle-to-vehicle (V2V) and vehicle-to-roadside units (V2RSU) networks. Recently, vehicular-visible light communication (V-VLC) technology is proposed as an economically viable solution to realize IoV, which can be implemented by using the existing LEDs in vehicle headlamps and taillights. It is expected to investigate the techniques that can be explored for next generation of IoVs, especially with respect to road intersection scenarios, to facilitate efficient and safe intelligent transportation systems.

2) Indoor sensing, localization and communication of devices using Visible Light

Visible Light Communication (VLC) combines illumination and data transmission, thereby facilitating green and sustainable energy solutions. The performance of VLC may severely deteriorate when the line of sight (LoS) link gets blocked due to other users/obstacles. Recent research activities in this direction have opened possibilities for using visible light for other applications as well, such as indoor sensing, localization, and positioning. It is expected to explore and propose new techniques that utilize visible light for sensing, localization, and communication of the devices in an indoor environment.

Prof. Vivek Ashok Bohara received a Ph.D. degree from Nanyang Technological University, Singapore, in 2011. From 2011 to 2013, he was a Postdoctoral Researcher (Marie Curie fellowship) in ESIEE Paris, University Paris-East. In 2013, he joined IIIT-Delhi, India, where he is currently a Professor and Head of the Department of Electronics and Communication Engineering. He has authored and co-authored over 100 publications in major IEEE/IET journals and refereed international conferences, two book chapters, and three patents. Dr. Bohara also supervises the Wirocomm Research Lab at IIIT Delhi, which deals with state-of-the-art research in wireless communication and allied area and is also the co-founding faculty member for Li-Fi Centre of Excellence @ IIIT-Delhi. His research interests are next-generation communication technologies such as Visible Light Communication (VLC), hybrid RF-VLC communication, integration of optical communication with intelligent reflective surfaces (IRS), UAV, and vehicular communication.



Essential Requirements

- ✓ PhD in a relevant field
- ✓ Excellent mathematical and analytical skills
- ✓ Excellent knowledge of basic wireless communication theory and wireless communication standards
- ✓ Excellent coding skills
- ✓ Good interpersonal & communication skills

Support

- ✓ An honorarium of Rs. 80,600/- per month (Rs. 65,000/- + 24% HRA)
- ✓ Contingency grant of Rs. 1,00,000/- per annum
- ✓ Support for travel to attend conferences/workshops

Apply here: <https://form.jotform.com/232222395980458>

For eligibility criteria & more information please visit: <https://www.tih.iitb.ac.in/tih-iot-chanakya-post-doctoral-fellowship-program-2023-24/>

For any queries related to the application process please write to us at chanakya-iot@tijiitb.org.

