IIIT Hyderabad Invites Applications for the Position of Intern at Robotics and Research Center (RRC)

Advertisement No: IIITH/RnD Recruitments/Advt No:04/2023

Application Start Date: 5-May-2023   End Date: 31-May-2023

The Robotics and Research Center at the International Institute of Information Technology Hyderabad (IIIT Hyderabad) seeks enthusiastic individuals interested in a Research Assistant (Internship) position. The selected candidate will be able to work with a highly experienced and collaborative team of researchers in the RRC, IIIT Hyderabad, and will be directly advised by Prof. K. Madhava Krishna.

Projects:

1. Smart Wheelchair - The project aims to develop a Smart and Autonomous Wheelchair. The ongoing research topic is Visual Language Navigation, which focuses on mixing the two modalities, vision, and language, for autonomous navigation. The chosen candidate will collaborate with our team of experts to design and develop innovative solutions for robotic systems that can efficiently and securely navigate in challenging conditions (e.g., tracking a person in a crowd, navigating through tight spaces, understanding, and following language commands)

2. Scene understanding in adverse weather conditions for navigation - https://gatedip.github.io/

3. Autonomous Navigation for Drones: The Project aims to develop algorithms for dynamic obstacle avoidance for a Quadcopter. Currently, the system can plan locally, create safe trajectories, and avoid static obstacles. The chosen candidate will work on implementing and developing algorithms for a dynamic obstacle scenario.

4. Multi-Agent SLAM: The project aims to develop a system to simultaneously localize multiple drones and map a given area under GPS-denied scenarios using sensors like stereo cameras and IMU. The chosen candidate will work on improving the place recognition module, backend optimization, and testing the system.

  Some of our recent works can be found here: **https://robotics.iiit.ac.in**.

Responsibilities:

1. Conducting comprehensive literature reviews.
2. Designing and developing advanced algorithms and deploying them on real-world robotic platforms.
3. Collaborate with other researchers in the team and contribute to research publications at top-tier conferences (ICRA, IROS, CVPR, etc.).

Requirements:

1. Strong programming skills in Python, C++, and/or MATLAB
2. Basic knowledge of Computer Vision, Deep Learning, and Robotics.
3. Familiarity with deep learning frameworks (e.g., TensorFlow, PyTorch).
4. Experience working with ROS.
5. Excellent problem-solving skills and ability to work independently and as a team.

Hardware Requirements (good to have):

1. Sensor integration with Microcontrollers, ROS
2. Basic understanding of Communication protocols - UART, SPI

Duration: Minimum of 6 months extendable to a year

Stipend: Enough to take care of boarding and lodging needs at IIITH

Apply here: https://forms.gle/PnkYkm7uyU7sSvYZ9.