THE HONG KONG POLYTECHNIC UNIVERSITY
香港理工大學

GLOBAL ENGAGEMENT OFFICE
環球事務處

Opening Minds • Shaping the Future
啟迪思維 • 成就未來

Junior Researcher Mentoring Programme 2023

Code:	JRMP2023_09
School / Department:	Department of Aeronautical and Aviation Engineering
Name of Research Team Member(s):	Dr Wen Weisong, Research Assistant Professor Dr Zhang Jiachen, Postdoctoral Researcher
Research Topic:	Intelligent Flying Police: Unmanned Aerial Vehicles for Safety Patrol in Urban Scenarios
Short Description of the Research Project:	Unmanned aerial vehicles (UAVs) are increasingly popular for civil applications due to their flight capabilities and mobility. For example, the UAV can perform safety patrol automatically in urban scenarios to detect potentially dangerous people or actions, such as fires, fighting and robbery. This project will design an Intelligent Flying Police based on the UAV system. First, the participating students would be introduced to an existing UAV platform which is equipped with sensors and intelligent algorithms for positioning (know where you are), path planning (know how to approach your destination) and control (know how to go). They can have a taste of how these algorithms play the roles in the UAV system. Second, they would join the testing of the artificial intelligence algorithms in different urban scenarios, for example with different levels of traffic density. By being involved in this project, they would be trained with the skills of problem-solving and a better understanding of UAV systems.
No. of Places Offered:	3

Frequency of Meetings:	Bi-weekly
Special Requirement(s):	Nil

* The information presented above is subject to change.