



# POLYU Junior Researcher Mentoring Programme 2024



<b>Code:</b>	JRMP2024_04
<b>School / Department:</b>	Department of Aeronautical and Aviation Engineering
<b>Name of Research Team Member(s):</b>	Dr Xu Bing, Research Assistant Professor Dr Jiang Yiping, Assistant Professor Dr Wang Tianqi, Research Assistant Professor
<b>Research Topic:</b>	Simulate, build, test and fly a communication CubeSat
<b>Short Description of the Research Project:</b>	This project will build a CubeSat for communication purposes using off-the-shelf components. The project will comprise at least four tasks. First, the participating students will perform a simulation of the system in terms of link budget, bit error rate, etc. Second, they will build the CubeSat using off-the-shelf components, such as the antenna system, solar panels, the power system and the onboard computing system. Third, they will test the CubeSat in a controlled environment, such as an anechoic room. Fourth, they will fly the CubeSat using a high-altitude balloon or unmanned aerial vehicle and perform field tests.
<b>No. of Places Offered:</b>	4
<b>Frequency of Meetings:</b>	Bi-weekly
<b>Special Requirement(s):</b>	It is preferable for the participating students to have taken Information and Communications Technology.

\* The information presented above is subject to change.