PolyU lauded for role in Mars mission



Wu Bo from the Department of Land Surveying and Geo-Informatics of Polytechnic University of Hong Kong (left) and Yung Kai-leung from the university's Department of Industrial and Systems Engineering pose for a photo during a media briefing at the university, May 21, 2021. (PHOTO / HONG KONG POLYTECHNIC UNIVERSITY)

HONG KONG - Two Hong Kong scientists hailed on Friday the Hong Kong Polytechnic University's involvement in China's Mars mission as proof of vigorous cross-border academic exchanges — a major focus in the national 14th Five-Year Plan (2021-25).

They made the remarks at a press briefing as two PolyU research teams detailed their research that helped make China the second country to land a spacecraft on the Red Planet.

The Tianwen 1 probe's landing site on Mars was chosen with input from Professor Wu Bo, at PolyU's Department of Land Surveying and Geo-informatics. His team determined that the area in a vast plain

called Utopia Planitia, in the northern Martian hemisphere, would have adequate sunlight, low altitude, and flat terrain for touchdown and operation.

Beginning in mid-March, about 20 PolyU researchers and students worked round-the-clock for one and a half months, Wu said. They mapped the landing area to gauge the risks, surveying 12,600 square kilometers, which is 11 times the size of Hong Kong.

Professor Yung Kai-leung, associate head of the Department of Industrial and Systems Engineering, led a team that developed a surveillance camera mounted on the lander. The camera played a crucial role in monitoring the landing and photographing the surrounding Martian environment. The 390-gram device — the equivalent of two iPhone 11s — needed to withstand an impact of 6,200G, or about 6,200 times the force of Earth's gravity, Yung said.

PolyU's contribution showed Hong Kong's strengths in basic research, which is a major focus of the 14th Five-Year Plan, said Secretary for Innovation and Technology Alfred Sit Wing-hang at the briefing.

With the country's staunch support for basic research, and the special administrative region government's efforts in expanding cross-border collaboration, Hong Kong will continue to leverage its advantages in the field and proactively participate in the national blueprint, said Sit.

Wu said he looked forward to working on future national space projects via cross-border academic exchanges, such as collaborations within the Guangdong-Hong Kong-Macao Greater Bay Area. But he expressed concern about Hong Kong youth's scant interest in basic research, as only one member of his team was born and raised in Hong Kong.

Yung said he hopes that Hong Kong will be invited to join more national-level science projects as a way to encourage local youngsters to pursue careers in science and technology. He also urged Hong Kong's science and technology community to take the initiative to meet the requirements of the country for the next stage of development.