[Housing Bureau and ASTRI sign MOU on construction and property management technologies (with photos)](#)

The Housing Bureau (HB) and the Hong Kong Applied Science and Technology Research Institute (ASTRI) signed a Memorandum of Understanding (MOU) today (November 14) to jointly explore innovative solutions and applications for enhancing construction efficiency and safety, as well as optimising property management processes.

The HB and the Housing Department (the executive arm of the Hong Kong Housing Authority) assume the responsibility of constructing a massive amount of public housing and managing nearly 200 public housing estates. In the face of various challenges in monitoring construction progress and safety, as well as property maintenance and management, the HB and ASTRI have established a strategic partnership with a view to exploring solutions and enhancements together by utilising innovative technologies.

Speaking at the signing ceremony, the Secretary for Housing, Ms Winnie Ho, said that the HB has been actively adopting advanced technologies and innovative thinking to enhance construction safety and efficiency and to optimise property management. With ASTRI's rich experience in research and development and application, through joint technical studies with the HB as well as conjoint efforts from various sectors, Ms Ho believes that quality and efficiency in areas such as construction, estate management, customer services will be significantly enhanced.

Witnessed by Ms Ho; the Secretary for Innovation, Technology and Industry, Professor Sun Dong; the Under Secretary for Housing, Mr Victor Tai; and the Board Chairman of ASTRI, Mr Sunny Lee, the Permanent Secretary for Housing/Director of Housing, Miss Rosanna Law, signed the MOU with the Chief Executive Officer of ASTRI, Dr Denis Yip. The first batch of technologies under study includes:

- Smart Optical Sensing for High Precision Modular Integrated Construction (MiC) Positioning – Through Smart Optical Sensing, positioning tracking, edge artificial intelligence (AI) and other technologies, using the data provided by dynamic visual sensors for real-time data analysis to calculate the precise location of the MiC modules for installation, this technology can perform under extreme environments, minimise human physically demanding tasks and enhance site safety.

- Enhanced 5G Coverage for Remote Crane Control – Deploying a low-latency and reliable 5G private network solution with advanced Internet of Things (IoT) technology on-site, supporting a massive number of device connections and enabling remote control of cranes, the implementation of real-time safety and progress monitoring will help lower the safety

risks of workers and improve the accuracy of crane tasks.

- Universal AI Predictive Maintenance System for Lifts — Leveraging IoT data to analyse and develop an AI system capable of predicting lift breakdown patterns, this AI Predictive Maintenance System is compatible with lifts from various manufacturers. The lift downtime is reduced by enabling more efficient on-site maintenance checks through remote, real-time monitoring and accurate breakdown predictions, enhancing the quality of property management services.