

Press release

For Immediate release

HKSTP and CAiRS to Propel New Industrialisation by Accelerating Development of Microelectronics and Advanced Manufacturing Startups

Partnership addresses critical testing and pilot-at-scale gap for micro-e startups

- HKSTP signed a partnership agreement with the Centre for Advances in Reliability and Safety (CAiRS) to further support microelectronics startups in testing and large-scale production.
- The partnership was signed at the official inauguration of the IEEE Reliability Society, Hong Kong Chapter (IEEE RSHK), which is another key ecosystem development accelerating technological advancements in reliability and safety in Hong Kong.
- The collaboration focuses on third-generation semiconductors and 3D System in Package (SiP). Third-generation semiconductors can be used in a wide range of applications, including electric vehicles, 5G technology, and for smart manufacturing and transport in Hong Kong and the Greater Bay Area.

(Hong Kong, 28 September 2023) – Hong Kong Science and Technology Parks Corporation (HKSTP) signed a partnership agreement with the Centre for Advances in Reliability and Safety (CAiRS), an InnoHK Centre established by The Hong Kong Polytechnic University (PolyU) and The University of Maryland, College Park from USA, to provide vital testing and pilot-at-scale capabilities to microelectronics (micro-e) and advanced manufacturing startups.

The partnership was signed at the official inauguration of the IEEE Reliability Society, Hong Kong Chapter (IEEE RSHK), which is another key ecosystem development accelerating technological advancements in reliability and safety in Hong Kong. The inauguration and signing ceremony were presided over by Ms Lillian Cheong, Under Secretary for Innovation, Technology and Industry of the HKSAR, Mr Albert Wong, Chief Executive Officer of HKSTP, Professor Kenneth Wong, Chair of IEEE Hong Kong Section and Head of Electrical and Electronic Engineering Department of the University of Hong Kong (HKU) and Professor Wing-Tak Wong, Deputy President and Provost of PolyU.

HKSTP established Heterogenous integration lab (HI Lab) to focus on third-generation semiconductors and 3D System in Package (SiP) capabilities, which completes an end-to-end innovation to production value chain for micro-e ventures who often lack the capability and resource to test their innovations at scale. The collaboration with CAiRS would further enhance this critical capability, which significantly boosts innovation, product safety and reliability, as well as market potential for startups at all stages, ultimately elevating the micro-e sector and advancing the city's new industrialisation mission.

Ms Lillian Cheong, Under Secretary for Innovation, Technology and Industry of the HKSAR, said: "I am delighted to join the inauguration of the IEEE Reliability Society (Hong Kong Chapter) cum HKSTP x CAiRS

Collaboration Agreement Signing Ceremony, which echoes with the vision and mission of the I&T Blueprint promulgated by the HKSAR Government in December last year. One of Hong Kong's clear advantages in I&T is our strong R&D capabilities and our potential for unexpected breakthroughs. The Government will continue to promote interactive development between the upstream, midstream and downstream sectors and to support the technology industry development. We will also further strengthen and better leverage on our distinctive edge as an international window and platform connecting our Motherland with the international community. By combining the strengths of the IEEE Reliability Society and CAiRS, we can anticipate groundbreaking advancements and these advancements will not only enhance the reliability of existing systems but also pave the way for the development of innovative technologies that will shape our future."

Mr Albert Wong, CEO of HKSTP, said: "Today's partnership with CAiRS is another key step in the HKSTP mission to forge a complete innovation ecosystem that supports micro-e startups from research and development (R&D) to full-scale product development and pilot testing, through to market-ready success. With our dedicated micro-e and advanced manufacturing facilities combined with extensive infrastructure at InnoParks, HKSTP is cementing Hong Kong as the ideal place to attract global electronics and engineering R&D talent, while scaling micro-e ventures and related companies to new heights and global success."

Professor Wing-Tak Wong, Deputy President and Provost of PolyU, stated: "PolyU is fully committed to supporting the establishment of IEEE Reliability Society Hong Kong Chapter and the collaboration agreement between HKSTP and CAiRS. This collaboration on third-generation semiconductors and 3D System in Package will help to unlock huge potential for third-generation semiconductors that can be used in electric vehicles, 5G technology, and for smart manufacturing and transport in Hong Kong and the Greater Bay Area."

CAiRS is an InnoHK Centre for collaboration and a market-leading regional hub for research in Reliability and Safety Innovation, while HKSTP's HI Lab provides a trial heterogeneous system and advanced packaging platform to conduct pilot testing of small batch micro-e product prototypes.

The HKSTP-CAiRS partnership commits both parties to training sessions and consultations for micro-e ventures, while co-development opportunities for product reliability and failure analysis for third generation semiconductor and sensors will be explored. The insights from these collaborative engagements will drive new industrialisation initiatives and smart city applications while leveraging Hong Kong's world-class legacy in electronics and manufacturing to take advantage of the global micro-e growth trend.

For more information on the HKSTP HI Lab, please visit <https://www.hkstp.org/what-we-offer/infrastructure/heterogeneous-integration-lab/>.



Photo 1: The official inauguration of the IEEE Reliability Society, Hong Kong Chapter (IEEE RSHK) inauguration was presided over by (from left to right) Ir Prof Winco Yung, Centre Director and Executive Director of CAiRS, Prof Wing-Tak Wong, Deputy President and Provost of PolyU, Ms Lillian Cheong, Under Secretary for Innovation, Technology and Industry of the HKSAR, Mr Albert Wong, CEO of HKSTP, Prof Kenneth KY Wong, Chair, IEEE Hong Kong Section and Head of EEE Department of HKU and Mr Andy Wong, Head of Innovation and Technology, Invest Hong Kong.



Photo 2: Ir Dr HL Yiu, Chief Corporate Development Officer of HKSTP (second from left) and Ir Prof Winco Yung, Centre Director and Executive Director of CAiRS (second from right), signed a collaboration agreement under the witness of Mr Oscar Wong, Head of Business Development of HKSTP (first from left) and Ir Prof HC Man, Dean of Faculty of Engineering of PolyU (first from right).



Photo 3: The inauguration of the IEEE Reliability Society, Hong Kong Chapter is another key ecosystem development that accelerates technological advancements related to reliability and safety in Hong Kong.



Photo 4: The HKSTP-CAiRS partnership will help leveraging Hong Kong's world-class legacy in electronics and manufacturing to take advantage of the global micro-e growth trend.

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About Hong Kong Science and Technology Parks Corporation

Hong Kong Science and Technology Parks Corporation (HKSTP) has for over 20 years committed to building up Hong Kong as an international innovation and technology hub to propel success for local and global pioneers today and tomorrow. HKSTP has established a thriving I&T ecosystem that supported over 10 unicorns and Hong Kong's leading R&D hub with over 13,000 research professionals and over 1,400 technology companies focused on healthtech, AI and robotics, fintech and smart city technologies.

Established in 2001, we attract and nurture talent, accelerate and commercialise innovation and technology for entrepreneurs on their journey of growth. Our growing innovation ecosystem is built around our key locations of Hong Kong Science Park in Shatin, InnoCentre in Kowloon Tong and three modern InnoParks in Tai Po, Tseung Kwan O and Yuen Long. The three InnoParks are realising a vision of new industrialisation for Hong Kong. The goal is sectors like advanced manufacturing, electronics and biotechnology are being reimaged for a new generation of industry.

Through our infrastructure, services, expertise, and network of partnerships, HKSTP will help establish innovation and technology as a pillar of growth for Hong Kong, while reinforcing Hong Kong's international I&T hub status as a launchpad for growth at the heart of the GBA innovation powerhouse.

More information about HKSTP is available at www.hkstp.org.

Media Contact:

Hong Kong Science and Technology Parks Corporation

Claire Ma

Tel: 852 2629 7032

Email: claire.ma@hkstp.org

Edelman Public Relations

Sonia Leung

Tel: +852 2837 4775 / +852 9684 9460

Email: Sonia.Leung@edelman.com/

Edelmanhkstp@edelman.com