



Technology continues to amaze and innovate logistics industry

With the growing popularity of virtual reality (VR), the advancement of robotics, satellite technology and positioning, the Internet of Things, the Cloud, FinTech and e-commerce, technology as we know it, is evolving at breakneck speed - the future is here and there's no way of stopping it.

Everyone is trying to get their fingers in the right pies and the Hong Kong logistics industry especially is seizing such opportunities; especially those involved in the Belt and Road initiative.

This year's LSCM Logistics Summit, held by the LSCM R&D Centre, was a huge success and drew in innumerable crowds of people from various sectors by showcasing the latest and greatest in modern technology. From 29th-30th September, LSCM showcased

its technological developments, business opportunities, solutions for operational efficiency as well as its other research projects related to the theme of "Winning the Belt and Road Opportunity Enabled by Innovation and Technologies".

A long list of high-flying government officials and industry leaders were in attendance, such as Dr David Chung, Under Secretary for Innovation and Technology; Prof K C Chan, Secretary for Financial Services and the Treasury; Frankie Yick, Legislative Councillor (Transport); Charles Mok, Legislative Councillor (Information Technology); Andy Tung, Chief Executive Officer, Orient Overseas Container Line Limited; Kelvin Ko, Chief Executive Officer, Cathay

Pacific Services Limited; Li Shu-pui, Executive Director (Financial Infrastructure), Hong Kong Monetary Authority; Benedicte Nolens, Senior Director, Head of Risk and Strategy, Securities and Futures Commission; Dr Sunny Chai, Chairman of Board of Directors, LSCM R&D Centre and Simon Wong, CEO of the LSCM R&D Centre; each individual was keen to



share their insights and experiences with the summit's attendees.

"This Summit also stages an exhibition to showcase the state-of-art technology. There is a showcase of the five research deliverables, developed by the LSCM R&D Centre.

You may also notice there are 23 exhibitors including two government departments; namely Hong Kong Police Force and Hongkong Post; and 20 solution providers from Hong Kong and Mainland China", said Dr Chai, who spoke of the highlights of the two-day event, which focused mainly on five technologies: Autonomous Guided Vehicle (AGV), FinTech, satellite technology and positioning, VR and cold-chain management.

Autonomous Guided Vehicle, known as AGV for short, is used in warehouse management. However, many AGVs are often affected by lighting in its surrounding environment, but with the introduction of new RFID tags embedded in the floor and an ultra-wideband UWB radar, the latest AGV will now be able to negotiate the lay of the warehouse with ease.

Simon Wong of LSCM's R&D Centre commented, "AGV is suitable for use in local warehouse, factory and large-scale retailing shop. AGV does not only carry goods, but can do inventory check tasks during closing time. A sensor fusion module of self-balancing, collision avoidance and inter-communication will be our focus to make AGV accommodate with local environment."

FinTech is the next bit of everyday technology that is currently all the rage, as it allows users (specifically budding entrepreneurs) to manage their business, their personal and commercial finances and keep costs down.



The Hong Kong Monetary Authority (HKMA) has bought into the FinTech craze and piloted "e-Cheque" payment system in 2015. The "e-Cheque" system caters to numerous financial institutions, payment service providers and businesses and LSCM's R&D Centre has been continuously engaged in the R&D aspect of the FinTech system and will be distributing its research outcomes through the "e-Cheque Apps Development Cloud", where various APIs and software building blocks such as the e-Cheque API, encryption and proxy re-encryption, key management, e-Cheque wallet components, e-Cheque forensics and other utilities.

Of particular interest to those working in logistics, the prospect of improved global positioning with the Beidou Navigation Satellite System and location based services is an especially exciting one for the "Belt and Road" initiative.

LSCM's R&D specialists have shared their exciting plans to develop a fundamental positioning infrastructure to link the entire Asian mainland and the surrounding regions. Locally in Hong Kong, LSCM presents a roadmap of developing multiple location based services technologies for the purpose of supporting innovations and industry development

in Hong Kong. For instance, a breakthrough in GPS accuracy is achieved by joining hands with our local researchers in Differential GPS developed based upon the Hong Kong Satellite Positioning Reference Station Network (SatRef).

VR has also aroused a lot of interest as the technology has become commercially available in areas such as gaming; in terms of the logistics industry, VR has been used to train staff for working in logistics and supply chain, create interactive museum exhibitions, construction virtual prototyping and drone mapping, just to name a few.

Finally, cold-chain management has continued to evolve and advance its effectiveness in the industry in order to satisfy increasing demand for temperature-sensitive products. One of the latest innovations in this area is a sensor module that measures the temperature and humidity of the environment, as well as ultra-light, illumination and vibration.

With the Belt and Road initiative, Hong Kong will benefit from closer ties with the related countries. It is thus important for Hong Kong to grasp this opportunity by adopting more technology innovations to facilitate the growth in logistics, trade and other industrial sectors.