

Press Release

LSCM Logistics Summit 2016

Winning the Belt and Road Opportunity Enabled by Innovation and Technologies Showcases latest Logistics Technologies Contributing our Strengths to the Need of the Country

Robotics, satellite technology and positioning, Internet-of-Things (IoT), Cloud computing, fintech and eCommerce have experienced tremendous growth locally in recent years. Along with the increasing usage of Virtual Reality (VR), how can Hong Kong make use of its own technology strengths and win the Belt and Road Opportunity is a big topic for the logistics industry.

In view of this, the “**LSCM Logistics Summit 2016**” held by the LSCM R&D Centre at Hong Kong Science Park on 29 & 30 September showcases its latest research projects under the context of “**Winning the Belt and Road Opportunity Enabled by Innovation and Technologies**” by increasing operational efficiency and creating business opportunities. Iconic government officials and industry leaders such as **Dr David Chung**, Under Secretary for Innovation and Technology; **Prof. K C CHAN**, Secretary for Financial Services and the Treasury; **Hon Frankie YICK**, Legislative Councillor (Transport); **Hon Charles MOK**, Legislative Councillor (Information Technology); **Mr Andy TUNG**, Chief Executive Officer, Orient Overseas Container Line Limited; **Mr Kelvin KO**, Chief Executive Officer, Cathay Pacific Services Limited; **Mr Shu-pui LI**, Executive Director (Financial Infrastructure), Hong Kong Monetary Authority; **Ms 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 **Mr Simon WONG**, Chief Executive Officer, LSCM R&D Centre shared inspiring insights and experiences with the Summit guests.

Dr Sunny CHAI, when introducing the highlights of the Summit said, “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 2 government departments; namely The Hong Kong Police Force and The Hong Kong Post; and 20 solution providers from Hong Kong and Mainland China. ”

There are five innovation and enabled technologies showcased in the Summit:

Robotics: Autonomous Guided Vehicles for Warehouse Management (AGV)

The current AGV on the market are easily affected by lighting of surrounding environment, but the latest technology will be able to navigate around the warehouse by following RFID tags embedded on the floor, and deployment of Ultra-wideband UWB radar, to ensure its navigation scope within 10 cm and enhance its collision avoidance capability. The robot navigates around on a predestinated route, scans the goods on shelf, and move around with a maximum loading of more than 100KG. This technology can execute repetitive tasks with speed and accuracy, assist with heavy object manipulation and avoid human errors, saving a lot of manpower. **Mr. Simon Wong** also said, “AGV is suitable for use in local warehouse, factory and mass 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.”

E-Cheque Apps development cloud

FinTech is the biggest trend of financial service nowadays. Initiated by the Hong Kong Monetary Authority (HKMA), e-Cheque was deployed in Hong Kong in late 2015. LSCM R & D Centre is engaged in the research and development of technologies to facilitate the building of applications on the e-Cheque system for financial institutions, payment service providers and businesses. The Centre’s research outcomes will be disseminated through the “e-Cheque Apps Development Cloud” where APIs and software building blocks such as e-Cheque API, encryption & proxy re-encryption, key management, e-Cheque wallet components, e-Cheque forensics and sanity utilities for e-Cheque clean-up will be disseminated. A simulated platform will also be set up for testing e-Cheque applications.

Strengthen local satellite technology and improve positioning

One Belt One Road Initiative connects the whole Asia mainland and surrounding region. Major infrastructure will be the bridge to link up each other. Modern construction requires concrete surveying data to formulate routing, to fix the building plan, to calculate the materials used for construction and even to check the condition against possible natural disasters.

LSCM R & D Centre plans to develop a fundamental positioning infrastructure to provide multiple location based services to support economic development in Hong Kong, utilizing the existing Hong Kong Satellite Positioning Reference Station

Network (SatRef).

Upon completion of first stage of the project, the Differential Global Navigation Satellite System (DGNSS) technologies developed by the project will enable civilian users in Hong Kong to attain personal locationing and vehicle navigation signals within an accuracy of two metres under good GPS signal and good GPRS signal reception conditions. The technology will integrate GPS, and Beidou to enhance the performance of the Hong Kong Global Navigation Satellite System (GNSS) reference network and achieve more reliable positioning. The Second stage of the project involves the development of a reliable Real-Time Kinematic (RTK) positioning application with accuracy of up to 1 cm for surveying and engineering applications.

A Virtual Reality (VR) System for Strategic Operations Training

VR and AR have brought about breakthroughs in many facets of businesses including staff training in logistics and supply chain, museum exhibition, construction virtual prototyping, drone and mapping, just to name a few.

Virtual Reality project addresses the important issue of training high-level management and technical professionals in making timely strategic decisions for critical operations, with a particular emphasis for the logistics and services sectors. The integrated virtual reality-empowered platform a fully immersive and automatic cave-like virtual environment for professionals to experience life-like scenarios of complex operations and virtually interact dynamically with such an environment, while having their activities and behaviors recorded for analysis, either in real-time or following completion. The technologies of virtual and augmented reality together with real-time motion capture are deployed with an artificial intelligence-based behavior profiling algorithm developed to achieve dynamic scenario creation and visualisation, user skills profiling and performance evaluation in completing these critical operations. This project can be delivered in a cost-effective manner for training and evaluating the decision-making and high-order skills of professionals.

Cold-chain management targets high value products

With the increasing demand of frozen food products, dairy products, vegetables, fruits and medicine from the mainland and surrounding regions, cold-chain logistics becomes an important division of logistics management. From the moment the products are taken out from its place of production, they should be kept in proper physical conditions during transportation, transfer, unloading, storage and retail sale

to ensure the best quality. The sensor module that had been used in an exhibition held at the Science Museum before is cost-effective .It can monitor the temperature and humidity as well as record the data of ultra-light, illumination and vibration. This monitoring set also provides offline mode to collect data during transportation.

About LSCM R&D Centre

The Hong Kong R&D Centre for Logistics and Supply Chain Management Enabling Technologies (LSCM R&D Centre) was founded in 2006, with funding from the Innovation and Technology Fund of the HKSAR Government, and co-hosted by The University of Hong Kong, the Chinese University of Hong Kong and the Hong Kong University of Science and Technology. It aims to strengthen the local Logistics Industry by providing a one-stop shop for technology transfer and commercialization, and reinforce the cooperation between the industry and research institutes, to bring about meaningful and significant benefits to the community.

Media Enquiry	
Carmen Poon Impact Communications Company Tel : 9077 2790 / 3590 4775 Fax : 3590 4630 carmen@impact-cc.com	Keith Kot Impact Communications Company Tel : 6128 4455 / 3590 5846 Fax : 3590 4630 keith@impact-cc.com
Eliza Cheng LSCM R & D Centre Tel : 2299 0116 Fax : 2299 0552 echeng@lscm.hk	Irene Leung LSCM R & D Centre Tel : 2299 0595 Fax : 2299 0552 ileung@lscm.hk