



[For Immediate Release]

LSCM R&D Centre showcases latest IoT Technologies Contributing to Logistics and Social Services Sector

(14th April 2015, Hong Kong) Organised by the Hong Kong R&D Centre for Logistics and Supply Chain Management Enabling Technologies (LSCM R&D Centre), and themed with “Smart IoT Technologies Break New Grounds for Diversified Development”, LSCM Roadshow 2015 is kicked-off at Olympian City 2 shopping mall today.

During the 6-day exhibition period, the roadshow demonstrates how the latest enabling technologies of Internet-of-Things (IoT) and Radio-frequency Identification (RFID) technologies can be applied to various fields, including: **Smart Warehouse Management System** which is specially developed to cater for the needs of the fast growing e-commerce industry; **Indoor Navigation Mobile Application** which can be widely applied in shopping mall, airport, exhibition hall and campus; **RFID Mail Tracking System**, a joint project collaborated with the Hong Kong Post aiming at enhancing the efficiency of postal service.

In addition, the **LSCM R&D Centre** has developed a series of assistive tools tailor-made for the social welfare sector, including a “smart communication card” which can assist the speech-impaired people to express themselves, the RFID tagged vest and key case which can prevent the elderly from getting lost and be located quickly, a “smart living sensor system” which can help the elderly to get prompt assistance if any falling accidents happened at home, and the “smart guiding stick” that gives voice instructions to the visually impaired.

Miss Janet WONG, JP, Commissioner for Innovation and Technology said, “The LSCM R&D Centre is dedicated to developing the latest technologies for the logistics and supply chain related industries, such as e-logistics and e-commerce technologies. They have even applied the related technologies to the social welfare sector, which facilitate technology diffusion and benefit people from all walks of life.”

Smart Warehouse Management System facilitates e-commerce

Combining physical and online shopping with various innovative technologies (e.g. RFID, Indoor / Outdoor Navigation and mobile online transaction) is an irresistible trend in the future. Such O2O (Online to Offline) business model not only brings extra shopping enjoyment to the consumers, but also creates a new consumption model.

Online shopping alters the traditional ways of retail trade. The logistics industry needs a comprehensive warehouse management system to deal with the greatly diverse but low volume products, but still at low operation cost. Therefore, the LSCM R&D Centre collaborated with the Chinese University of Hong Kong (CUHK) to develop a **Smart Warehouse Management System**. It is custom-made for small and medium-sized enterprises which can be diversely located at different districts and stored with various product types. With electronic labels being installed onto the stock racks, the system can indicate different products types and quantities as well as monitor the temperature and humidity of the specific stock racks as well with frequent wireless updates. Operators only need to turn on specific cloud-based software and they could take or store stocks and change storage location at any time.

Indoor Navigation System transforms traditional consumption model

Have you ever imagined the information of the products you want to buy pops up on your mobile phone right when you walk into the shopping mall? Or you will be instructed with the shortcut to the destination immediately? Indoor Navigation is the new hotbed in the digital era. The LSCM R&D Centre collaborates with Hong Kong University of Science and Technology (HKUST) to develop a Wi-Fi technology-based indoor navigation mobile application. Customers only need to input the destination and then the shortest route, information of the shops along the route and discount offers will display on application instantly. The public is welcome to enjoy a firsthand experience during the exhibition period at the Olympic City 2

RFID applied in Warehouse Management helps to enhance Operational Efficiency

LSCM R & D Centre is conducting a pilot scheme in the logistics industry by applying RFID technology. The Air Mail Centre of Hong Kong Post has to send out a huge amount of outgoing mails from Hong Kong efficiently everyday which requires a perfect grasp of the exact location of each inventory cart and the destination of all outgoing mails contained in the mailbag. This centre provides a simulated warehouse environment for carrying out experiment. The technology achieved from the research would be applied to Smart Warehouse Management in order to enhance operational efficiency of SME.

Improve life quality of the elderly by limiting their barriers

According to the population projection report in 2012 from Hong Kong Census and Statistics Department, there will be nearly 20% of the population aged 65 or above by 2021. Both the government and the market cannot ignore the significance of the 'silver hair' population. The LSCM R&D Centre has introduced a handheld RFID reader which can help the elderly with deteriorating health to function better in everyday life. The reader only costs HK\$800 and just

weights 35g, which is much lighter than similar products from Europe and the United States. Due to the fact that the reader is low cost and with reusable electronic tags, the usage range becomes very broad.

The RFID reader can be used together with the “smart communication cards” to help the elderly with dementia or disability to express themselves. When the RFID reader touches the options on the “smart communication cards”, it will provide voice instructions. Also, it can help the elderly check the drugs and dosage information to avoid mistaking. This technology is currently under pilot test in Tung Wah Group of Hospitals Jockey Club Rehabilitation Complex, Wong Chuk Hang.

The RFID tagged vest installed with Global Positioning System (GPS), is also developed by the LSCM R&D Centre and, is now having a pilot in Wong Cho Tong Social Service Centre of Tung Wah Group of Hospitals. Each GPS installation can track down the location of the elderly and it only costs a few hundred Hong Kong dollars. It is a relatively economical way to ensure personal safety and alleviate working pressure of the caring staff.

The “smart living sensor system”, another product from the LSCM R&D Centre, can effectively monitor whether there is any home accidents occurred on the elderly through a special-image monitoring system. The smart toilet monitoring system uses the flush frequency to alert medical staff if the toilet has not been flushed after a prolonged period so seniors can be rescued from emergency. The Tung Wah Group of Hospitals Jockey Club Rehabilitation Complex will have a test run of this system in the near future.

Smart Guiding Cane guides for the visually impaired

Traditional tactile paving can only provide guidance for the visually impaired towards a specific route but they cannot determine the direction at a diversion point. The LSCM R&D Centre deploys RFID technologies in the development of “smart guiding cane”, which provides voice instructions once it contacts the RFID tags installed inside the tactile paving. The cost of each RFID tag installed inside the tactile paving is about \$10 dollars and the removable RFID reader for the Smart Guiding Cane is about HK\$800. The Hong Kong Society for the Blind is running a trial in their centre with and the responses are very positive. .

During exhibition period, the organiser has installed guidance used RFID tags in Olympian City 2 Central Atrium, G/F, for visitors to experience the convenience this technology has brought for the visually impaired.

LSCM Roadshow 2015

Date: 14 - 19 April 2015

Time: 11am - 8pm

Location: Central Atrium, G/F, Olympian City 2



The Wi-Fi based Indoor Navigation Mobile Application can minimize installation and maintenance costs.



The “Smart Guiding Cane” provides voice instructions to the visually impaired when the guiding stick contacted the RFID tag of the tactile paving.

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