



### Land Surveying Division

Sr Koo Tak Ming LSD Council Chairman

## Year of the Ox

Kung Hei Fat Choi! Welcome to the Year of the Ox.

Oxen are hard workers among livestock, as well as intelligent, reliable, honest, and earnest. But they never demand praise because they are low key and never want to be the centre of attention. These traits often hide their talents, but their hard work often gains them recognition.

I hope that we can be as strong as an ox and keep our cool when facing challenges so that we can think logically and find ways to overcome them.

## Land Surveyors Foster the Development of Smart Cities 推進智慧城市發展

An HKIS media briefing was held on 19 February at the Surveyors Learning Centre. President Sr Edwin TANG expressed that one highly topical area of concern is the promotion of healthy buildings and built environments to mitigate the risks of epidemics/pandemics, so as to reduce the impact they may have on surveying practices. The six divisions of the HKIS will collaborate and make use of their members' professional knowledge to reflect on its proposals and advice to the Government, industry, and the public.

To fully promote the development of smart cities, which include healthy offices and building environments, the LSD has to utilise its members' professional knowledge to facilitate the capture of high-precision spatial data and translate them into needed spatial information before setting it as the basic infrastructure for the development of a smart city.



President Sr Edwin TANG and HKIS Spokespersons



Sr KOO Tak-ming, LSD Chairman



Core Technologies for a Smart City

### Why Spatial Data is so Important to Smart City?

**80%**  
of data is spatial

#### Source of Spatial Data

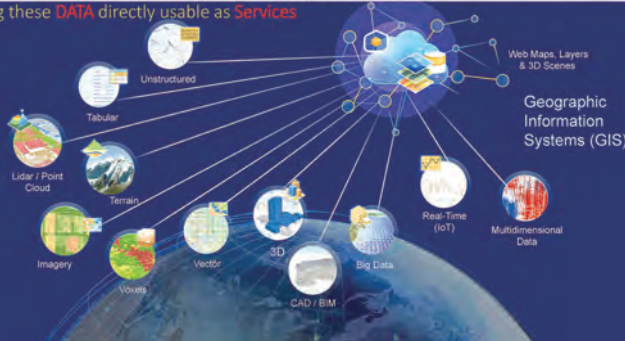
- GNSS-enabled devices,
- Aerial surveying
- UAV
- Radar, Lidar
- Satellite remote sensing
- Sensor networks
- Digital cameras
- Location of readings of RFID, etc....

Importance of Spatial Data

THE HONG KONG INSTITUTE OF SURVEYORS  
香港測量師學會

### Integrates All Kinds of Geospatial Data

... Making these DATA directly usable as Services



Transformation of Spatial Data into Needed Spatial Information

## Hydrographic Survey of Coastal Seawalls by the Multi-beam Echo Sounding System (10 February 2021)

High-resolution, multi-beam echo sounding surveys are fast becoming critical to any marine construction and maintenance projects in Hong Kong. The ability to digitally model physical structures improves the efficiency of the design, planning, and implementation of marine infrastructure maintenance projects. Moreover,

this new technology can potentially benefit clients because high-resolution hydro-spatial data, particularly for those projects that employ highly-demanded detailed mapping, can now be efficiently captured.



Presentation of Appreciation Certificate to Sr Jay PANG Wai-man (2nd from right)

Sr Jay PANG Wai-man showed members how the multi-beam echo sounding survey technique could be used to map Hong Kong's coastal seawalls.

### Survey Design

#### Selection of Survey Equipment

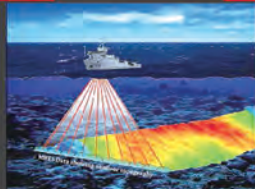
- Select appropriate equipment from possible options:

Roll Pitch Heave

Heading

Sound Velocity

Position



Tide Measurement

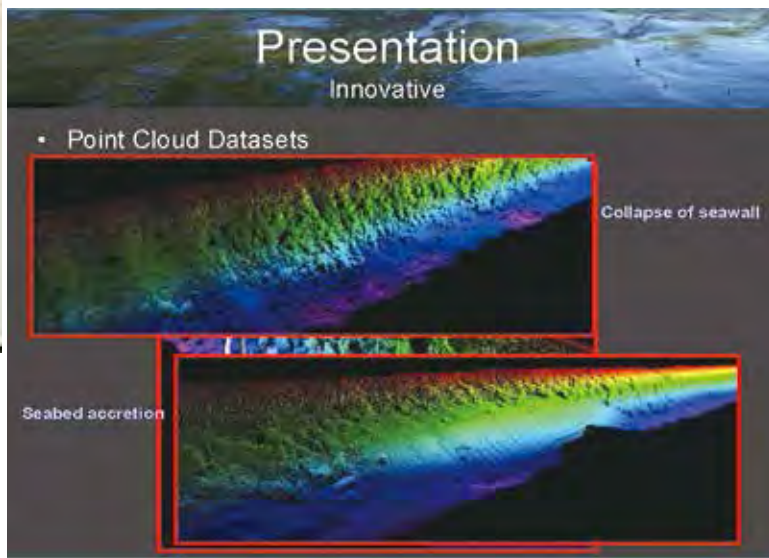
Multibeam Echo Sounding system

Essential Steps in the Selection of Equipment for a Survey



Jay presented his talk seamlessly by guiding the audience through the various stages of the task from pre-survey planning to field operations, data processing, and presentation of the results in both point cloud and geo-referenced underwater surfaces. For this project, he was awarded the Best LSD APC Award 2020.

I hope to see more effort spent on exploring the application of specialised hydrographic techniques for high-precision, geo-spatial data to support various types of marine activity in Hong Kong.



Point Cloud of the Survey



Geo-referenced Image of the Underwater Features

### HKIS Souvenir

### HKIS Car Badge

A premium quality HKIS Car Badge is available now for you to decorate your car. Featuring HKIS' signature purple colour and shiny chrome, this nickel-plated car badge comes with two screws for easy installation.

Each retailed at **HK\$180.**



For enquiries and ordering, please contact our reception desk at 2526 3679 or visit [https://hkis.org.hk/en/hkis\\_shop.html](https://hkis.org.hk/en/hkis_shop.html)

SUBSCRIBE TO HKIS  
YOUTUBE CHANNEL



THE HONG KONG INSTITUTE OF  
**SURVEYORS**  
香港測量師學會  
[www.youtube.com/TheHongKongInstituteofSurveyors](http://www.youtube.com/TheHongKongInstituteofSurveyors)



**HKIS PASS CONFERENCE:**

# **Evolving Professional Surveying Services in Smart City**

**27/03/2021**

**9:00AM - 5:00PM**

**Event Code: 2021037 CPD Hours: 7**

**Admission Fee: HK\$460**

**Format: Webinar**

**Enrollment:**

[https://www.hkis.org.hk/en/professional\\_cpd2.html?id=5106](https://www.hkis.org.hk/en/professional_cpd2.html?id=5106)



1. Enrollment will be accepted on a first-come, first-served basis as seats are limited.

2. For enquires, please contact [Mr Desmond FUNG](mailto:desmond@hkis.org.hk) (HKIS PASS Project officer) at [61272253](tel:61272253) or email to [desmond@hkis.org.hk](mailto:desmond@hkis.org.hk)

This event is funded by the Professional Services Advancement Support Scheme of the Government of the Hong Kong Special Administrative Region. Any opinions, findings, conclusions or recommendations expressed in this event under this project do not reflect the views of the Government of the Hong Kong Special Administrative Region or the Vetting Committee of the Professional Services Advancement Support Scheme.

Supporting organisation:





## Event Details:

**Date: 27 March 2021 (Saturday)**

**Time: 9:00 am – 5:00 pm**

**Admission Fee: HK\$460**

**Format: Webinar**

**CPD Hours: 7**

## Introduction:

The Conference is under a project funded by **Professional Services Advancement Support Scheme (PASS)** and aims to share the professional service, practice and experience from **Belt and Road cities / countries on Smart City development**.

The Conference will be held on **27 Mar 2021 through online**. It will invite different experts from Belt and Road cities / countries, e.g. Singapore, South Korea, Mainland China, plus local government officials, industry practitioners and academics to share their viewpoints and experience on 4 specific topics: **“Smart City and Common Spatial Data Infrastructure (CSDI)”, “Smart Development”, “Smart Geo-Information System (GIS)” and “Smart City Talent”**.

**Don't miss this opportunity ! Please register and join the Conference on 27 Mar 2021 !**  
Here is our brief introduction to the conference sessions !

### Session 1 Smart City and Common Spatial Data Infrastructure

Keynote speeches from guest of honor and panel discussion with the theme of application and development of smart city and CSDI

### Session 2 Smart Development

Sharing speeches and panel discussion with the theme of applying smart city related technologies in the city planning and development

### Session 3 Smart Geo-information System

Sharing speeches and panel discussion with the theme of developing GIS for smart city development

### Session 4 Smart City Talent

Sharing speeches and panel discussion with the theme of training talents to contribute the future development of smart city

## Enrollment

[https://www.hkis.org.hk/en/professional\\_cpd2.html?id=5106](https://www.hkis.org.hk/en/professional_cpd2.html?id=5106)



Event Code: 2021037

Enrollment will be accepted on a first-come, first-served basis as seats are limited.

For enquires, please contact [Mr Desmond FUNG](mailto:Mr.Desmond.FUNG) (HKIS PASS Project officer) at [61272253](tel:61272253) or email to [desmond@hkis.org.hk](mailto:desmond@hkis.org.hk)