

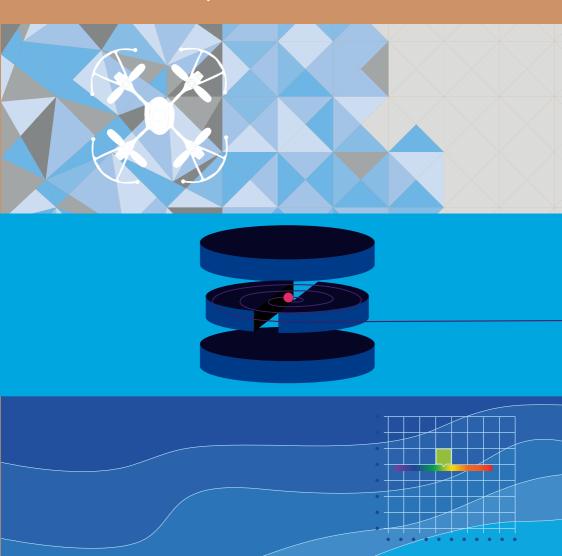
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/MEET

20.Mar.2017

PROF LONG QUAN

Department of Computer Science and Engineering

MAPPING the World with Drones!

Professor Quan leads a team that uses photographs and deep visual learning technologies to produce complete 3D models of all types of locations on Earth. In this talk, he reviews the developments in computer vision and machine learning over the past three decades. He also turns the focus on recent exciting work in deep visual learning and large-scale 3D reconstruction using drone photographs. Here, he showcases the approach using case studies of hundreds of square kilometers in both high-rise metropolitan areas and undeveloped rural areas in a variety of different countries. He also demonstrates the online cloud platform and portal www.altizure.com with its crowdsourced Altizure Earth, developed and funded by the HKUST team, rivaling the popular Google earth!

16.May.2017

## PROF KAM TUEN LAW

Department of Physics

## QUANTUM COMPUTING

– the Next Big Thing?

The discovery over the past few decades of new fundamental particles – the building blocks of the universe – such as quarks and Higgs boson has attracted plenty of attention. These findings have been made possible thanks to particle accelerators, up to tens of kilometers in length, that accelerate the particles to very high energies. In this talk, Professor Law explains how new types of particles can potentially be found in superconductors 1,000 times thinner than a hair. Known as Majorana particles, these can be used for quantum computations able to perform calculations much faster than regular computers. However, there is as yet no conclusive evidence regarding the discovery of Majoranas. With recent investments by corporations such as Google and Microsoft, it is hoped that Majorana-based quantum computers can be realized in the near future. Professor Law discusses the theoretical and experimental pursuit of Majorana particles at HKUST.

12.Jun.2017

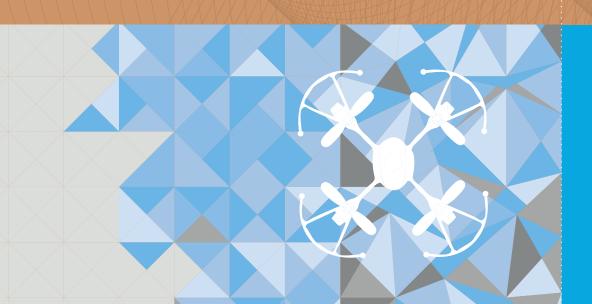
# PROF JOSEPH HUN-WEI LEE

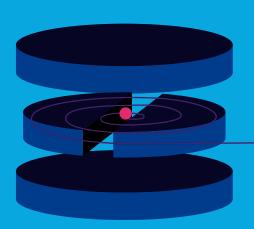
Department of Civil and Environmental Engineering

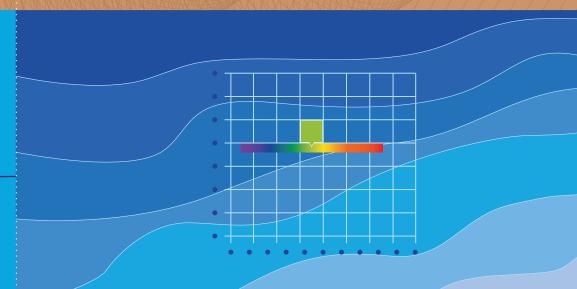
/LEARN
WATER-QUALITY

Forecasting in Smart Cities

For a city with 733km of coastline, an internationally famous harbor and 262 islands, water quality is extremely important and is a key facet of public health policy. Hydro-environmental engineering research is vital to the understanding of issues such as protection of our beaches, red tides, fisheries management and even the recently reinstated cross-harbor swimming race. Professor Lee specializes in environmental hydraulics & fluid mechanics and water-quality modeling. In this talk, he discusses the relationship between sustainable water management and "turbulent vortices" within the sea, and the development of a real-time, beach water-quality forecast system that every smart city should have. He also reports on recent research related to chlorine disinfection dosages for the second stage of the Hong Kong Harbour Area Treatment Scheme – the largest project of its kind in the world. The use of real-time forecast systems for the Kowloon East Smart City will also be discussed, along with other international examples.







Venue: HKUST Business School Central 15/F, Hong Kong Club Building, 3A Chater Road, Central, Hong Kong

Time: 12:30 pm - 2 pm

### **How to Register**

- 1. Online registration opens one month before the talk.
- 2. A registration fee of HK\$150 will be charged for a talk per person. The payment will be done online with credit card.
- 3. Confirmation notice will be delivered to guests by email.
- For enquiry, please contact Miss Fanny Yue at 2358 5019 or email to science.for.lunch@ust.hk.

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