

LSGI Distinguished Lecture Series

“A Tale of Two Cities -- 3D Utility Mapping in Singapore & Zurich, and Smart Cities Development in Singapore”

Overview

It was our pleasure to invite Dr Gerhard Schrotter (Director/CE - Department of Geomatics, City of Zürich) and Dr Victor Khoo (Deputy Director - Land Survey Division, Singapore Land Authority, Singapore), to deliver a seminar of the LSGI Distinguished Lecture Series on 20 April 2018.



Biographies

Gerhard Schrotter is Director of the Geomatics Department of the City of Zürich. He received his Ph.D. from Swiss Federal Institute of Technology (ETH, Switzerland), Master of Engineering and Bachelor degree from Technical University of Graz (Austria), and a CAS in public management from the School of Management and Law (Zurich). He held appointments as Senior Researcher at Surrey University (GB), Cornell University (USA), and as a Project Coordinator at Singapore ETH-Centre. He worked as Head of GIS Competence Centre (Urban Planning Office of the City of Zürich), International Project Leader at a private GIS Company (Axon Active), as a software engineer for an outdoor advertisement company (Clear Channel), and as a project leader to develop a digital aerial camera (Vexcel Imaging Austria). Currently he is involved in the development and introduction of various strategies for the City of Zürich.

Victor Khoo is the Deputy Director of the Land Survey Division of Singapore Land Authority (SLA). He received his Ph.D. and Master of Engineering degree from Nanyang Technological University (NTU), Singapore and his Bachelor degree in Land Surveying from the University Technology of Malaysia (UTM). Prior to his appointment in SLA, he was involved in various GPS, geospatial related and satellite remote sensing research projects for a period of 8 years. He held appointments as Associate Scientist in the Centre for Remote Imaging, Sensing and Processing (CRISP) in NUS and Research Associate in the Spatial Information Laboratory, School of Civil and Environmental Engineering, NTU. Victor is a Registered Surveyor; a professional surveyor, registered under the purview of Land Surveyors Act administered by Singapore Land Surveyors Board. Currently, he works in diverse geospatial related subjects that encompass the collection, management and dissemination of survey and mapping data. His areas of interest include Differential GNSS, Cadastral Surveying, 3D Mapping and Spatial Data Infrastructure.

A Tale of Two Cities -- 3D Utility Mapping in Singapore & Zurich, and *Smart Cities Development in Singapore*

The Digital Underground Project is a research to application project embarked on by the Singapore-ETH Centre together with Singapore Land Authority and the City of Zurich. The aim of the project is a roadmap to 3D map the underground utility networks. This roadmap should pave the way towards capturing reliable 3D information of underground services. A permanent record of the precise location of the underground infrastructures in a consolidated 3D database alongside above ground data should be established. In this Distinguished Lecture Dr. Victor Khoo of the Singapore Land Authority and Dr. Gerhard Schrotter of the City of Zurich's Geomatics Department will discuss the need for a reliable and sustainable 3D map of underground utility networks, the challenges that exist, and their collaboration towards realizing that goal. Concluding their week-long study visit to Hong Kong they will share lessons learned from their interactions with professionals from academia, industry and government agencies in Hong Kong.

The speakers will also present their rationale for collaborating within the framework of the Singapore-ETH Centre (SEC) and highlight the activities of SEC's Future Cities Laboratory programme. The Future Cities Laboratory (FCL) was established by ETH-Zurich and Singapore's National Research Foundation (NRF) and deals with emerging challenges of urbanisation and its consequences for Singapore, the ASEAN+ region and the world.