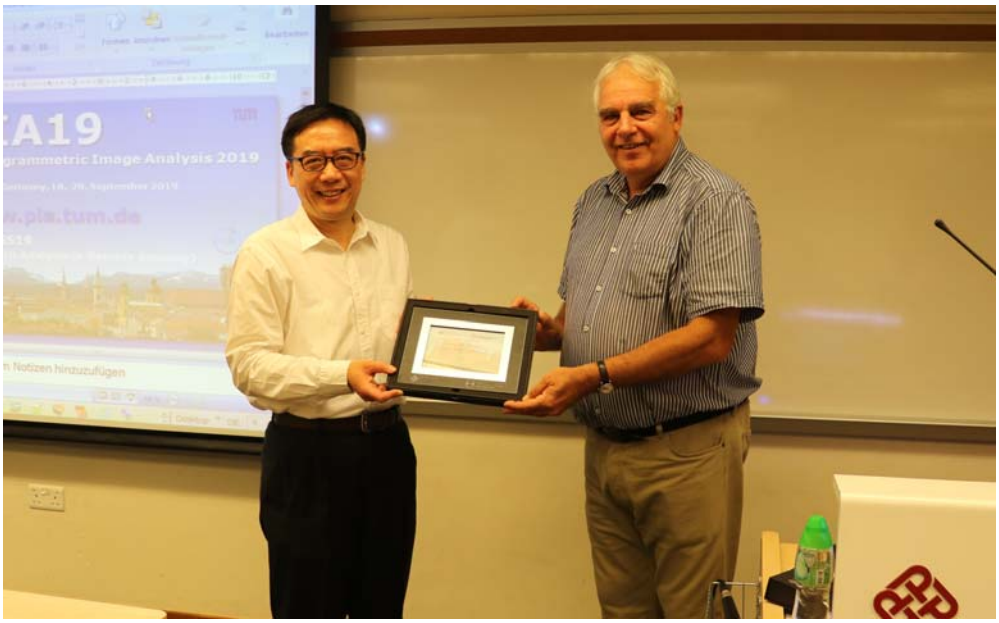
DEPARTMENT OF
LAND SURVEYING AND GEO-INFORMATICS
土地測量及地理資訊學系

LSGI Distinguished Lecture Series

"Change Detection using Point Clouds - Photogrammetry meets BIM"

Overview

It was our pleasure to invite Prof. Uwe STILLA, Professor, Head of Department of Photogrammetry and Remote Sensing, Technical University of Munich, Germany, to deliver a seminar of the LSGI Distinguished Lecture Series on 10 Sep 2018.



Biography

Prof. Stilla is the Head of the Department of Photogrammetry and Remote Sensing and course director of the Bachelor's and Master's Programs "Geodesy and Geoinformation" at Technical University of Munich. His research interests include image analysis in the field of photogrammetry and remote sensing. The publication list of Prof. Stilla shows more than 450 entries. Prof. Stilla is the Chair of the ISPRS Working Group II/III "Pattern Analysis in Remote Sensing", is a Principal Investigator of the International Graduate School of Science and Engineering (IGSSE), a member of the Scientific Board of German Commission of Geodesy (DGK), Vice chairman of Commission for Geodesy and Glaciology (KEG) of the Bavarian Academy of Science and Humanities, Munich, Germany and President of the German Society of Photogrammetry, Remote Sensing and Geoinformation (DGPF).

Change Detection using Point Clouds - Photogrammetry meets BIM

Building Information Modeling (BIM) is increasingly gaining the attention of researchers in architecture, engineering and construction (AEC) as well as in geo-information science (GIS). While Photogrammetry and Remote Sensing have established a strong link to GIS over decades, the field of mapping and reconstruction of spatial building structures in context of BIM is still young and challenging. The challenge becomes clear when comparing the modeling of buildings in GIS (e.g. CityGML) and BIM (e.g. IFC) which have different starting situations and objectives. Introducing digital methods for the built environment in civil engineering is required for reducing the backlog of

digitization in industry and is forced by many countries. This presentation addresses the challenges and possibilities of Photogrammetry supporting the monitoring of existing buildings and buildings under construction using BIM. Three different ways for the acquisition of photogrammetric point clouds of construction sites and the method for automatic progress monitoring using a 4D-BIM are shown and discussed.