THE HONG KONG POLYTECHNIC UNIVERSITY 香港理工大學

DEPARTMENT OF CIVIL AND ENVIRONMENTAL ENGINEERING 土木及環境工程學系 CEE

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National Rail Transit Electrification and Automation Engineering Technology Research Center (Hong Kong Branch) 國家軌道交通電氣化與自動化工程技術研究中心 (香港分中心)

Land Subsidence and Faulting Monitoring in Houston, Texas, USA

Date : 25 July 2019
Time : 4:30-6:00pm
Venue : Room Z210, PolyU

Professor Guo-Quan Wang
Department of Earth and Atmospheric Sciences
Department of Civil and Environmental Engineering
University of Houston, Houston, Texas, USA

Abstract

The Houston metropolitan area represents one of the largest subsidence areas in the USA. GPS techniques have been employed for land subsidence and faulting monitoring in the Houston metropolitan area since the late 1990s. Currently, there are over 250 permanent GPS stations located in the greater Houston area. This talk aims to introduce the GPS geodetic infrastructure in the Houston metropolitan area and its applications in urban subsidence and faulting monitoring, as well as long-term Structural Health Monitoring (SHM).

Speaker's Biography

Dr. Guoquan Wang is a Professor at the University of Houston, Texas, USA. His current research interests lie in natural hazards (earthquake, landslide, subsidence, coastal erosion) monitoring and early-warning, and long-term structural health monitoring (SHM) using GNSS, LiDAR, and UAV-based remote sensing techniques. Dr. Wang served at the University of Puerto Rico (Mayaguez) as an Assistant Professor from 2006 to 2011, where he and his team established the Puerto Rico and Virgin Islands GPS Network (PRVINet) and the Continuously Operating Caribbean GPS Observational Network (COCONet, https://coconet.unavco.org). He was awarded the NSF CAREER award in 2009. Dr. Wang joined the University of Houston in 2011, where he is a Professor of Geophysics and Geosensing Systems Engineering at the Department of Earth and Atmospheric Sciences and the Department of Civil and Environmental Engineering. He has been the Director of Houston GPS Network (HoustonNet) since 2011, the Assistant Director of the University of Houston Coastal Center (UHCC) science 2015, and the Graduate Advisor of the geophysics program at the Department of Earth and Atmospheric Sciences, University of Houston since 2017.

******All Interested Are Welcome ******

For further information, please contact Ms. Autumn Lin at Tel. 3400 8535.

Certificates of attendance will be provided to participants if they attend the whole lecture.