UNIVERSITY OF MACAU

FACULTY OF SCIENCE AND TECHNOLOGY

DEPARTMENT of

CIVIL AND ENVIRONMENTAL ENGINEERING

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" Health Monitoring of Supertall Structures"

by

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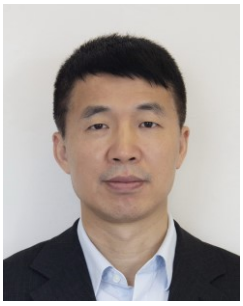
Time: **11:30AM – 12:30PM**

Venue: **E11 – 1028**

Abstract

Recent decades have seen the construction of many skyscrapers in Asia. Although numerical analysis and scaled laboratory experimental techniques have been well developed and employed to predict the structural performance of supertall structures under various loadings, the structural performance under actual construction and service conditions is an issue that has not been investigated in depth to date because of the current shortage of existing, sufficient and mature experience for practical supertall skyscrapers. The recently developed structural health monitoring offers a potential solution as an innovative situ-based laboratory experiment technique that allows for the measurement of a structure's loadings, environmental factors, and responses. This talk will use the 600-m-tall Canton Tower at Guangzhou as an example to demonstrate the structural behaviors during the construction and service stages, particularly the temperature and wind actions of the supertall structure.

Biography



Prof. Yong XIA is now Full Professor and Associate Head (Research Development) of Department of Civil and Environmental Engineering, The Hong Kong Polytechnic University. He obtained his Bachelor and Master degrees both from Huazhong University of Science and Technology, China and PhD degree from Nanyang Technological University, Singapore. He then worked at The University of Tokyo as JSPS Fellow and The University of Western Australia as Research Associate, before joining The Hong Kong Polytechnic University in 2006. He has published over 100 refereed international journal papers, secured 6 Hong Kong Research Grant Council projects and two Natural Science Foundation of China research projects, among others. He is now the Co-Editor-in-Chief of Advances in Structural Engineering, an SCI journal; Fellow of the Hong Kong Institution of Engineers. He was awarded State Technological Innovation Award in 2018. Dr. Xia's main research areas include structural health monitoring and nonlinear vibration of cables.

ALL ARE WELCOME!