

# HKABAEIMA Training Centre Season 8

Date: 14th Sep 2022

Welcome Address via Zoom online

[Register](#)

## Theme: Innovations in openBIM and openGIS

### Class 50

#### Part 1

An automatic MiC design system for modularisation and module coding in open formats

#### Part 2

openBIM for Long Span Footbridge connecting Hoi Ying Estate and Hoi Tat Estate



Schedule		Speaker/Moderator
17:45	18:00	Reception
18:00	18:05	Moderator - Michael Wong
18:05	18:15	Welcome Address - Ada Fung
18:15	18:45	An automatic MiC design system for modularisation and module coding in open formats
18:45	19:15	openBIM for Long Span Footbridge connecting Hoi Ying Estate and Hoi Tat Estate
19:15	19:30	Q&A

#### Part1

Modular Integrated Construction (MiC) is becoming increasingly popular in Hong Kong. An automatic design system for modularisation in open formats is developed to solve design challenges during the early design phase of MiC projects. The system automatically generates an IFC-based model with modules created and configured in a controlled way. The extended IFC-based model provides essential support to design optimisation and interoperation in MiC projects. In addition to creating interoperable applications through open formats, the system is integrated into a CDE platform to promote flexibility, simplicity, and efficiency in BIM-based modularisation design, resulting in seamless interoperability during the design and construction phases of MiC projects.

#### Part2

Construction of this footbridge was a big challenge to both the main contractor and the steel fabricator as it spans across 2 motorways. Temporary enclosures were impossible during daytime and public safety is the major concern when we were talking about erecting those large-diameter steel members. With that, the main contractor and the steel fabricator have proposed to adopt a lowering construction method and planned to use only 1 night to get the bridge lowered to the final position.

In this presentation, we will share how openBIM workflow helps throughout this long-span bridge project and reduce collaborative errors, improve the interoperability between software, and ensure the accuracy of multi-party collaboration, thus improving the efficiency of the whole project.

## Speakers' Biography

**Dr. Calvin Keung** (BSc, MSc, PhD, FHKIS, FRICS, RPS(QS), CCBM, MHKIBIM) is the BIM Developer in the Department of Architecture and Civil Engineering at the City University of Hong Kong. He is also the core academic staff teaching BIM at CityU. Dr Keung adopts a collaborative approach to BIM education, so he has developed innovative tools and facilities supporting interdisciplinary BIM teaching and research. In recognition of his innovative initiative and dedication to BIM education, Dr Keung received the Teaching Application Award from the 4th International BIM Award Conference in 2018, the Outstanding Teaching Award from the College of Engineering of CityU in 2020, and the Innovative CityU-Learning Award from CityU in 2020. He was also elected BIMers2020 by the CIC.

**Mr. Benny Liu** (MEng, MHKIBIM, MCIQB, MIET, CCBM, CCBC) is the Chief Technology Officer of Global Virtual Design and Construction Limited. He is also a Project Manager (Engineering) of Yau Lee Construction Company Limited, a Board member of HKIBIM, Head of the Membership Committee of HKIBIM, an External Member of the Programme Vetting Panel for the HKIC and an Assessor of the CIC BIMAP. His experiences cover BIM Full Building Life Cycle Management, quality control and quality assurance, BIM research & developments as well as Laser scanning, Drone Technology, MiC production, DWSS, BIM standard establishment and implementation. Mr Liu also teaches two HKCIC CITF Pre-Approved BIM Training Courses – Open BIM Training and 4D BIM Scheduling and Process Management and teaches in Singapore BCA Academy Workshop Series on Lean Construction Management – BIM Scheduling and Process Management. He was also elected Construction Innovator by BIM @ HKCIC.

#### Note:

- Participation at this training class is free of charge, but registration is required. The registration will close at 3pm on the day.
- Upon the completion of this class, a 1 hour CPD will be offered at the cost of HK\$ 50 (as a handling charge).
- The class will be conducted in English.