



## Symposium on Structural Design of Buildings in Era of off-site Prefabrication

Organised by  
Department of Civil Engineering, The University of Hong Kong  
Supported by  
American Society of Civil Engineers (Great China Section)  
Institution of Civil Engineers, Hong Kong Association  
Structural Division, Hong Kong Institution of Engineers  
Hong Kong Institute of Steel Construction

Manufacturing parts and components of a building off-site is the current trend dominating building construction employing emerging technologies. Innovations in this theme are motivated by the sustainability merits and costs reduction. There are many facets of contemporary building technology where prefabrication and modular construction is the underlying theme. This one-day symposium is specifically targeted at the needs of engineers who are engaged in the structural design of buildings. Key concepts relevant to modularisation, structural design, and offsite manufacturing are introduced and illustrated by case studies. As design considerations and methods of construction are intertwined, both topics are covered by the speakers. The contingent of speakers is made up of experts from within prestigious institutions from within Hong Kong and from The University of Melbourne who is the leading university in Australia and has been receiving R & D funding from Australian governments and industry over many years to develop new building technologies in the prefabrication and modularisation theme. Every speaker is internationally renowned researchers and professional leader in their own right as shown below.

**WHO SHOULD ATTEND:** This course is suitable for civil and structural engineers working at different levels from graduate engineers to supervising senior / chief engineers, checkers, regulators and code drafters who want to acquire a sound fundamental understanding of the key principles on this subject in order to effectively exercise their respective professional duties that are associated with the engineering of structures.

### University of Melbourne Expert Speakers:

Professor Tuan Ngo - Research Program Leader: *Building transformation of the Building CRC* and Co-founder and Research Director of *ARC Training Centre for Advanced Manufacturing of Prefabricated Housing*, Infrastructure Engineering, The University of Melbourne, Australia.

Professor Nelson Lam - Professor and Leader of Structures and Buildings Discipline, Infrastructure Engineering, The University of Melbourne, Australia.

Dr Tharaka Gunawardena - Research Fellow and Principal Instructor to Melbourne University hosted industry short courses on *structural design of prefabricated and modular building construction*, Infrastructure Engineering, The University of Melbourne, Australia.

### Hong Kong Speakers

Ir Professor Siu Lai Chan - Retired Chair Professor in Computational Structural Engineering, Hong Kong Polytechnic University, Hong Kong, China and now Director at Nida Technology Limited

Dr. YP Liu & Dr. JLY Chan - Director and Senior Engineer, Nida Technology Limited

Ir Wai Leong Chan – Assistant Director, WSP Consulting Limited

Dr Yanmin Wu - Structural Design Expert, Principal Engineer and Technical Manager, NAMI.

### Continuing Professional Development Credits:

The course is considered suitable for 1 CPD-day credit.

\* A 'Certificate of Attendance' will be issued to those who attend the registered sessions.

**Dates:** Thursday 20, April 2023 (9:00 a.m. - 5:00 p.m.). **Course Venue:** Room Tivoli, Regal Kowloon Hotel

**Course Fee:** HK\$ 1850 (including course note, a 1 CPD-day 'Certificate of Attendance', a lunch buffet, and two coffee breaks) (Non-refundable).

**Enquiries:** All enquiries about this professional course should be addressed to Mr Chen Jiajun, Rm 618, Haking Wong Bldg, Department of Civil Engineering, The University of Hong Kong at +852 6093 4379 (Email: junjames@connect.hku.hk).

Symposium on

## **Structural Design of Buildings in Era of off-site Prefabrication**

Course Venue: Room Tivoli, Regal Kowloon Hotel  
71 Mody Road, Tsim Sha Tsui East, Kowloon

### **COURSE PROGRAMME**

#### **Thursday 20 April 2023**

8:45 am - 9:00 am - Registration

9:00 am - 9:05 am - Opening by Prof. Francis Au, Head of Department of Civil Engineering

9:05 am - 10:05 am - **Latest Technologies for Design and Construction of Modular Buildings & Applications of Industry 4.0** by Prof Tuan Ngo

10:05 - 10:30 - Morning Tea & Coffee

10:30 - 11:30 - **Recent Innovations in High-Performance Material and MiC Technology in Hong Kong** by Dr Yanmin Wu

11:30 - 12:30 - **Direct Analysis of MiC Allowing for Semi-Rigid Connections with Application to Design of Innocell, Science Park** (first steel MiC building in Hong Kong) by Ir Prof Siu Lai Chan, Ir WL Chan, and Drs. YP Liu and JLY Chan

12:30 - 14:00 - Lunch

14:00 - 15:00 - **Structural Design of Prefabricated and Modular Buildings (DFMA Format, Case Studies, Lessons Learnt and Future Opportunities)** by Dr Tharaka Gunawardena

15:00 - 15:30 - Afternoon Tea & Coffee

15:30 - 16:30 - **Earthquake Safety of Buildings Built of Modular Units** by Prof. Nelson Lam

16:30 - 17:00 - Summary and Feedbacks by Prof. Nelson Lam

## REGISTRATION FORM

To: Mr Chen Jiajun, Course Secretariat

Please register me / us for the following professional course:

### Structural Design of Buildings in Era of off-site Prefabrication

Date: Thursday 20 April 2023

Time: 8:45 a.m. - 5:00 p.m.

Course Venue: Room Tivoli, Regal Kowloon Hotel

Course Fee: HK\$ 1,850

Please complete in **ENGLISH** (in **BLOCK LETTERS**)

	Surname	Given Name	Name of Company	Telephone	Email Address	Need Hardcopy of Course Note (Y/N)
1						
2						
3						
4						
5						

Registration Fee	Number of Persons	Total
HK\$ <u>1850</u> per person		HK\$

The registration fee includes course note, a 1 CPD-day 'Certificate of Attendance', a lunch buffet, and two coffee breaks. The 'Certificate of Attendance' will be issued to those who have attended all sessions. Note that **ONLY** softcopy of the course note will be provided unless requested in the above form. The download link will be provided in the due course.

All payments are non-refundable.

Please send the completed registration form with a crossed cheque made payable to "**The University of Hong Kong**":

*Mr Chen Jiajun, Course Secretariat  
Department of Civil Engineering, The University of Hong Kong, Pokfulam Road, Hong Kong*

Please note that registration will only be confirmed upon receipt of payment and on a first-come-first-served basis. **DO NOT** send any cash in the post. The official receipt for the registration fee will be distributed on the days of the course.

Contact: Mr Chen Jiajun, Rm 618, Haking Wong Bldg, Department of Civil Engineering, The University of Hong Kong at +852-6093 4379, Email: junjames@connect.hku.hk

Enclosed Cheque No.: \_\_\_\_\_ Bank: \_\_\_\_\_