





Professional One-Day Short Course on

Lateral Dynamic and Accidental Load on Structures: Collision, Seismic, Blast and Wind actions

Organised by Department of Civil Engineering, The University of Hong Kong

> Supported by Hong Kong Wind Engineering Society (HKWES) & American Society of Civil Engineers (ASCE)

Syllabus:

This one-day short course aims to present key fundamental principles and up-to-date methods for designing structures for countering the **collision action** of a moving or falling object. In addition, **seismic and blast actions** will also be introduced from the designer's perspectives along with a unified approach of representing collision, seismic and blast actions in one framework. The amount of advanced technical education in related topics that can be obtained from an undergraduate engineering degree program is still very limited. Guidance provided by regulatory documents for use by the structural designer for these topics is generally inadequate. Given the specialised nature of the topics there are significant amount of materials that cannot be found in textbooks. These advanced topics can be of great practical value and yet are seldom taught in the classroom. Worked examples have been incorporated to illustrate some new calculation techniques. Course materials that are provided to course participants include published articles for self-reading, programs written in Microsoft Excel to facilitate complex analyses and the lecture slides. Substantial new materials have been introduced and improvements made in response to feedbacks from participants of similar courses delivered previously. Eurocodes are the primary source of references but other major codes of practice will also be referred to.

In the second part of **wind action**, the scientific background behind some adjustments of Hong Kong Wind Code from CoP 2004 to CoP 2019 will be described. The approaches of combining wind tunnel testing data with wind climate will also be discussed.

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 in countering environmental hazards.

Enquiries: Miss Aggie Sung (Tel: 2859 1963, Email: olsung@hku.hk)

Speakers:

Live Online Lectures –

(As Professor Nelson Lam cannot leave Australia due to current COVID-19 restrictions, live online lectures are arranged.)

Professor Nelson Lam BSc(Eng), MSc, DIC, PhD, FIEAust, NER, FIStructE, MICE, Professor, Leader of the Structures and Buildings discipline, Department of Infrastructure Engineering, The University of Melbourne, Australia.

On-site Lecture –

Dr. Kit-ming Lam *BSc(Eng) PhD CEng MIMechE*, Adjunct Associate Professor, Department of Civil and Environmental Engineering, Hong Kong University of Science and Technology; Past Chairman of Hong Kong Wind Engineering Society.

Continuing Professional Development Credit:

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

* A Certificate of Attendance will be issued to those who attend all sessions.

- Date: April 19, 2021 (Monday) (8:45 a.m. 5:30 p.m.)
- Course Venue: 11/F, L'hotel Nina et Convention Centre, 8 Yeung Uk Road, Tsuen Wan, Hong Kong (Tsuen Wan West MTR Station - Exit D) (https://www.lhotelgroup.com/en/hotel/lhotel-nina/Location/Location)
- **Buffet Lunch:** Café Circles, 9/F, L'hotel Nina et Convention Centre (https://www.lhotelgroup.com/en/hotel/lhotel-nina/Wine-Dine/Cafe-Circles)

Course Fee (Non-refundable): HK\$1,850 inclusive of the following:

- 1 set of course notes
- 1 CPD-day Certificate of Attendance*
- welcome coffee & tea during registration
- 2 coffee breaks with refreshments
- buffet lunch at Café Circles
- wireless internet access
- free flow of water & mints; pen & meeting paper

Early-Bird Discount: HK\$1,650 for registrations confirmed by March 31, 2021 (Wednesday)

Registration Deadline: April 9, 2021 (Friday)

Late registration is subject to availability of vacancies.

Novel Coronavirus (COVID-19) Precautionary Measures by L'hotel:

- Social distancing measures announced by the government will be implemented.

- Body temperature of all guests will be taken upon entering the hotel.

- Hand sanitizer will be provided at the hotel public areas, course venue and restaurants.

- Germagic[™], a smart coating proven to be effective in killing viruses, bacteria and even hard-to-kill spores has been applied throughout our premises.

For all F&B outlets within the hotel, the following measures are imposed during the current situation:

- Guest are required to record the visit with the 'Leave Home Safe' mobile app or fill in the personal details as entry record.

- Guests are required to wear face mask and have temperature check before being seated.

- Unless drinking and eating, Guests are required to wear a facemask throughout even when collecting food at the buffet tables.

- Food will be covered with transparent covers or sneeze guards and independent food tongs will also be placed on the buffet tables.

THE UNIVERSITY OF HONG KONG DEPARTMENT OF CIVIL ENGINEERING

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COURSE PROGRAMME

April 19, 2021 (Monday)

8:45 a.m 9:00 a.m.	Welcome Coffee & Tea during Registration
9:00 a.m 10:30 a.m.	Impulsive action on a structure caused by a collision $^{\#}$
10:30 a.m 11:00 a.m.	Coffee Break with Refreshments
11:00 a.m 12:30 p.m.	Localised action at the point of contact of a collision #
12:30 p.m 2:00 p.m.	Buffet Lunch at Café Circles
2:00 p.m 3:00 p.m.	Unified approach of representing collision seismic and blast actions #
3:00 p.m 3:30 p.m.	Coffee Break with Refreshments
3:30 p.m 5:30 p.m.	Scientific background to Hong Kong Wind Code 2019 $^{@}$
5:30 p.m.	Collection of Certificate of Attendance

[#] Live Online Lecture by Professor Nelson Lam
[@] On-site Lecture by Dr. Kit-ming Lam

REGISTRATION FORM

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Please complete in ENGLISH (in BLOCK LETTERS)

	Surname	Given Name	Name of Company	Mobile Phone No.	Email Address
1					
2					
3					
4					

Registration Fee	Number of Persons	Total
HK\$1,650 / HK\$1,850 [©] per person		HK\$

[©] Please delete the amount as appropriate.

Please send the completed registration form with a crossed cheque made payable to "The University of Hong Kong". Please do not send any cash in the post. All payments are non-refundable.

Miss Aggie Sung, 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. The official receipt for the registration fee will be distributed on the day of the course.

Enclosed Cheque No.:





L'HOTEL NINA ET CONVENTION CENTRE 如心海景酒店暨會議中心

8 Yeung Uk Road,Tsuen Wan, Hong Kong 香港荃灣楊屋道8號 (852) 2280 2898 info.nina@Ihotelgroup.com www.Ihotelgroup.com

To Tsuen Wan West MTR Station (approx, 5 mins) 往荃灣西港鐵站(約5分緯) •••• To Tsuen Wan MTR Station (approx, 15 mins on foot via covered footbridge) 往荃灣港鐵站 (經有蓋行人天橋步行約15分鐘) Covered footbridge 有董行人天橋 ---▶ Jogging Track 緩跑徑 Tsuen Wan West Railyway Station **Bus Terminus** 荃灣西鐵路站巴士總站 Nina Tower Bus Terminus 圆2 如心廣場巴士總站 Bus Stop - To Shatin & Tsuen Wan 83 巴士站 - 往沙田及荃灣 Bus Stop - To Tsing Yi & Mongkok 84 巴士站 - 往青衣及旺角 Cross-border Coach Terminus шņ 中港直通巴士總站 Shopping & Dining 購物及餐飲 Place of Interest 景點 Supermarket 超級市場 W -Convenience Store 便利店 Bank / ATM 銀行/提款機