

## Half-Day Seminar on Various Fire Resistance Tests and their Advanced Development

Organized by  
Hong Kong Institute of Steel Construction  
Department of Civil and Environmental Engineering, Hong Kong Polytechnic University

Supported by  
Fire Division, The Hong Kong Institution of Engineers

Date:	7 November 2019 (Thursday afternoon)
Venue:	Room FJ303, The Hong Kong Polytechnic University, Hunghom
Time	1:45 pm (registration) for 2:00 pm to 5:45 pm

### Scope and Objectives

Fire Safety is a big issue in infrastructure and construction buildings. In Hong Kong, we have code of practice to govern the requirements of fire safety level for different types of building. To prevent the fire spread within a building, compartments will be formed to confine the fire for a sufficient period to allow occupant evacuation and to access of fire fighters to help the victims and extinguish the fire. For those structural building elements, which are also known as the loadbearing elements, their protection under fire exposure is vital in maintaining the structural stability of the buildings under fire.

However, fire test is regarded as a large-scale destructive test, it is not practical to test every variation of a system. Therefore, in this field, an assessment approach will be adopted to involve the professional engineering judgement on the possible variations based on the fire test results. The assessment needs to rely on the experience of the assessors, and at the same time a strong professional and engineering background to support these appraisals.

In the latest researches, it is discovered that, the fire occurred inside a tunnel may generate much more severe heating condition compared to the traditional consideration of “Compartment” fire concept. In such a fire scenario, the heating condition in normal fire test (ISO heating curve) may not be adequate, especially when the high strength concrete structure is used for the lining material of tunnels. The ultra-rapid temperature rise, and high temperature will cause concrete spalling and sudden failure of the system loadbearing capability. Based on this, a heating curve (known as the RWS curve) developed by the TNO, now privatized as Efectis had been used in the fire test for tunnel lining materials.

HKISC is very pleased to invite Dr. L.K. Sze, Lipmann, the Technical Manager of the Research Engineering Development Facade Consultants Ltd (RED), to deliver this seminar.

## Official Language

English and Chinese will be the language medium of the seminar.

## Fees & Registration

Registration rates are given below.

HKISC member	HKIE member or Group of 5+	Non-member
HK\$ 700	HK\$ 800	HK\$ 900

The registration includes a copy of the lecture notes, half-day CPD certificate and tea refreshments. Should you have further query, please do not hesitate to contact Mr. Sam CHAN at [samchan@hkisc.org](mailto:samchan@hkisc.org).

## Programme

Time	Programme
1:45 pm	Registration
2:00 pm	Part 1: The concept of fire protection for structural building elements and how the assessment works.
3:30 pm	Tea Break
4:00 pm	Part 2: The importance of RWS heating condition for tunnel lining and how to conduct the test.
5:30 pm	Q & A
5:45 pm	Collection of CPD Certificate

## Biography of the speaker Dr. L.K. Sze, Lipmann

Dr. Sze is the Technical Manager of the Research Engineering Development Facade Consultants Ltd (RED). He studied his bachelor and PhD in the Department of Mechanical Engineering in the Hong Kong Polytechnic University. The research topic for his study was related to the combustion and pollution control of flue gaseous. He had over 10-years experience in both product testing, assessment, fire engineering and certification of passive fire protection product. He worked for Exova Warringtonfire before as the fire engineer and was responsible for the fire engineering design, product testing and the technical assessor for 'Certifire' product certification scheme. He joined RED on 2012, and is the expert on fire testing and product assessment. Apart from the Fire Resistance Testing, he is also the expert in reaction to fire testing and aids in developing the reaction to fire testing facility in RED.

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### REGISTRATION FORM ( To be replied on or before 4 November 2019 )

Please follow the 2-step registration procedure:

1. Fax the completed registration form to *Mr Sam CHAN* (Fax: 852-2334 6389) for preliminary registration.
2. Post the completed registration form within 7 days together with a crossed cheque payable to **Hong Kong Institute of Steel Construction Limited** to *Mr Sam CHAN*, at:

Room ZS 972, Department of Civil and Environmental Engineering,  
The Hong Kong Polytechnic University, Hungghom, Kowloon, Hong Kong, China.  
**on or before the deadline.**

**To: Mr Sam CHAN**

**Fax: 852- 2334 6389**

Personal Details:

Title	Name in full (Block Letter)	Name of Company	Tel.	E-mail address	Institution/ Membership No.
1.					
2.					
3.					
4.					
5.					

Item	Total no. of registration	Sub-total
1. Regular registration (HKISC Member*price)	_____ person(s)	= HK\$ _____
2. Regular registration (HKIE Member/Group of 5 *price)	_____ person(s)	= HK\$ _____
3. Regular registration (Non-member price)	_____ person(s)	= HK\$ _____

Postal Address  
(for official receipt):

I enclose a crossed cheque (no. \_\_\_\_\_) with a sum of HK\$ \_\_\_\_\_ for the registration fee of the captioned Seminar.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**CPD Certificate of Attendance** Please tick the appropriate box to indicate your choice:

Yes, I/ we would like to have CPD certificate(s).  Not request for certificate(s).