







## Half-day Seminar on Design of Glass including Glass Fin and Bolted Connection in Glass Pane

Organized by Façade Group, Hong Kong Institute of Steel Construction

Supported by

Department of Civil and Structural Engineering, The Hong Kong Polytechnic University

Joint Structural Division, The Hong Kong Institution of Engineers

Date: 23 June 2017 (afternoon)

Venue : Room N002, The Hong Kong Polytechnic University Time : 1:45 pm (registration) for 2:15 pm to 5:45 pm

## Scope and Objective

For glass fin and bolted connection in glass pane, the presence of holes through which bolts are inserted leads inevitably to stress concentration and should not be ignored.

In traditional engineering for an infinite thin plate with a hole under tensile load, conventional peak stresses near the hole can be three times as large as those away from the hole. For splice connection of glass fins using bolts, structural calculation should have checked the tensile stress at the edge of the hole caused by the contact bearing stress of bolt on the glass hole, and that high tensile stress concentration would be generated.

In these circumstances, a stress concentration factor of 3.0 for the tensile stress generated is adopted as an assumption. Alternatively, for more accurate assessment of the stress concentration effects caused by the bearing stresses at the contact area of the hole in the glass, rigorous finite element analysis may be conducted.

Since the design is based on well-defined parameters, no specific test is required to demonstrate the structural performance of the splice connection. Attention should be paid to its detailing at the glass fin and bolt/glass interface of the splice connection, which should be filled up with sufficient thickness of resilient gasket, usually silicone rubber, EPDM, Neoprene and Santroprene, in order of cost, with usual A-shore hardness value of 60.

While there are intensive aspirations from the industry in the design of glass fin and bolted connection in glass pane, the seminar is tailor-made on the design of glass with particular reference to glass fins and bolted connection in glass pane for the practising building professionals in particular Registered Structural Engineers, Technically Competent Persons and façade practitioners to attend.

## Official Language

English and Cantonese.

### Speaker

The HKISC have the great pleasure to invite Ir Dr. Dominic YU, a Corporate Member of the HKIE as well as an expert in the structural design and use of glass, to deliver the workshop. Dr. YU is now working at Alpha Consulting Limited, responsible for designing and supervising a number of curtain walls, window walls and glass balustrade works.

## Fees & Registration

Registration rates are devised as follows: -

Designation For	HKISC member	HKIE member or Group of 5 +	Non-member
Registration Fee	HK\$ 600	HK\$ 700	HK\$ 800

The registration includes a copy of the lecture notes, a CPD certificate and tea refreshment.

Should you have any query, please do not hesitate to contact Mr. Sam CHAN at <a href="mailto:samchan@hkisc.org">samchan@hkisc.org</a>.

# **Programme**

Time	Programme			
1:45 pm – 2:00 pm	Registration			
2:00 pm – 3:30 pm	General design of glass			
3:30 pm – 4:00 pm	Tea Break, Collection of CPD certificates;			
4:00 pm – 5:30pm	Design of glass fin			
	Design of bolted connection in glass pane			
5:30 pm – 5:45 pm	Q & A, Collection of CPD Certificate			



#### 香港理工大學, 土木及環境工程學系 THE HONG KONG POLYTECHNIC UNIVERSITY Department of Civil and Environmental Engineering





HK\$ 800

# REGISTRATION FORM (To be replied on or before 19 June 2017)

# Half-day seminar on Design of Glass including Glass Fin and Bolted Connection in Glass Pane

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:

The Hong Kong Institute of Steel Construction c/o Room ZS972, Department of Civil and Environmental Engineering, The Hong Kong Polytechnic University, Hunghom, Kowloon, Hong Kong.

on or before the deadline.

HK\$ 600

To:	Mr Sam CHAN			Fax: 2334 6389				
Perso	onal Details:							
Title	Name in full (Block Letter)	Name of C	ompany	Tel.	E-mail add	dress	HKISC/HKIE Membership No. (if any)	
1.								
2.								
3.								
4.								
5.								
Posta	I Address:							
Sigr	nature:			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).								
Registration fees								
HKISC member		HKIE	members or Gro	pers or Group of 5+ Non member				

HK\$ 700