

## DETAILS

### Glass – It Can Make Or Break Your Projects! - Friday, 19 September 2008

Seminar Fee:

SIA Member	S\$ 75.00 (incl GST)
BOA/CIJC Member	S\$ 110.00 (incl GST)
Non-Member	S\$ 150.00 (incl GST)

Closing Date for Registration **12 September 2008**

Enquiry (call Ms Jasmine Chan) Tel: (65) 6226 2668  
Fax: (65) 6226 2663

## REGISTRATION

Name: \_\_\_\_\_  
(please underline Surname)

NRIC No: \_\_\_\_\_

Membership No: [ ] SIA \_\_\_\_\_

[ ] CIJC (Pls specify Institution) \_\_\_\_\_

[ ] BOA Reg No \_\_\_\_\_ [ ] Non-Member

Organisation: \_\_\_\_\_

Address: \_\_\_\_\_  
\_\_\_\_\_ S ( )

Tel: \_\_\_\_\_ Fax: \_\_\_\_\_

Email: \_\_\_\_\_

Contact Person: \_\_\_\_\_

Bank/Cheque No: \_\_\_\_\_ Amount S\$ \_\_\_\_\_

Please forward your registration form and crossed cheque payable to **"Singapore Institute of Architects"** before the closing date to:



Ms Jasmine Chan  
Singapore Institute of Architects  
79B Neil Road, Singapore 088904

**Registration will be on a First-Come-First-Served basis and will be accepted upon receipt of registration form and payment to SIA. Registration by fax will only be confirmed upon receipt of payment.**

Cheque payment for this activity should not be combined with payment for other SIA events/courses.

Fees paid are non-refundable under all circumstances. Replacement of participant will be allowed only if notification is made at least 7 days before the event.

Where a Non-Member replaces a Member (must be from the same organisation) the fee difference will have to be made good to SIA prior to the event.

## SYNOPSIS

### Aesthetics and Performance of Glass

An exploration of glass and glazing options which influence the overall building aesthetics and energy costs. The program starts with looking at individual glass choices available such as colors, coatings, ceramic frit pigments and more. Photographs of product features are shown on finished buildings as a means of visualizing the aesthetic effects.

We will discuss the different types of vacuum deposition, solar reflective and Low-E coatings and how they can be used to "fine-tune" glass performance and appearance. A discussion of the unlimited uses for silk-screened glass as well as instructions on the positive attributes silk-screened glass has with structural aesthetics, glare reduction, increased solar performance and creation of light-play applications.

### Learning Objectives:

Options available that affect aesthetics and performance include: colored glass, coatings, spandrel, silk-screening, insulating, laminating, special fabrication, translucent products and more.

After reviewing the individual options, participants will learn how glass features can be combined and incorporated together within finished projects to harmonize aesthetic and solar control.

### Introduction to Curtain Walls

"Curtain wall" is a very generic term used to represent a vast and diverse family of building envelopes. There is often confusion and misinformation in relation to curtain walls, especially when it comes to the selection of curtain wall systems and infill materials. This presentation intends to present commonly adopted types of curtain walls, glazing systems, and infill materials. Insights will be given into the steps that go into the design of a curtain wall, and the selection of the right system and materials.

### Learning Objectives:

- What are the different types of curtain wall systems?
- Which type of curtain wall is best suited to a particular design?
- What types of glazing systems are available?
- Which infill material options are available to the curtain wall designer?
- Which steps are involved in the curtain wall design process?

### Benefits:

Achieve a greater understanding of curtain wall types, materials and design process.

Be able to make the right decisions in terms of system and material selection at an early stage in the design process.

## SINGAPORE INSTITUTE OF ARCHITECTS



Singapore Institute of Architects  
presents

## Glass – It Can Make Or Break Your Projects!

Friday, 19 September 2008

1.30pm	Registration
2.00pm	Welcome Remarks by Singapore Institute of Architects
2.05pm	Aesthetics and Performance of Glass by Mr Han Jee Juan
3.05pm	Introduction to Curtain Walls by Mr Mathieu Meur
3.50pm	Coffee Break
4.20pm	Curtain Walls – The Green Perspective by Mr Mathieu Meur
4.50pm	Non-destructive Testing On Glass / Detection of Critical Impurity In Tempered Glass by Mr Aw Chong Tze
5.20pm	Questions & Answers
5.50pm	End of seminar

## VENUE

Singapore Institute of Architects  
SIA Theatre - Level 1  
79 Neil Road  
Singapore 088904

## ACCREDITATION

A Singapore Institute of Architects (SIA) registered activity. Participating in this activity will accrue **4** points towards the requirements of the SIA Continuing Professional Development Programme.

Registered as a CES Provider of American Institute of Architects (AIA). Participation in this activity will accrue Learning Unit Hours.

Supported by the Royal Institute of British Architects (RIBA) as valid CPD Hours for its members.

CPD PROGRAMME

SINGAPORE INSTITUTE OF ARCHITECTS

2008/083/ms/jc

## SYNOPSIS .....continued

### Curtain Walls – The Green Perspective

Worldwide, people are slowly realising that our actions are not without consequences on the environment. The impact of the rising cost of energy has brought about a sudden realisation that squandering energy is not viable in the long-term. As building designers, it is our responsibility to make sure that we are not wasteful, both during construction and in the lifespan of the building. In particular, energy wastage through the façade of buildings can be limited through a variety of approaches, that vary depending on the aesthetic intent, and the available budget. This presentation intends to introduce current approaches to “green” façade design, as well as open up the window to possible future developments in this field.

#### *Learning points:*

- Why should we care about a “green” approach?
- Which “green” options are currently available to the curtain wall designer?
- Which options are best suited to which conditions or design?
- What could the future hold in terms of green design options?

#### *Benefits:*

Understand and integrate green principles in curtain wall design.

### Non-destructive Testing On Glass (Surface compressive strength test)

Fully tempered glass generally are 4 (four) times stronger than annealed glass. When broken, fully tempered glass usually break into relatively small pieces meeting safety glazing requirement. (ASTM C1048 or SS341). Tempered glass which is not adequately tempered may cause the glass to shatter into large pieces which may cause the likelihood of serious injuries to users.

GASP or Polarimeter is a portable instrument for measuring surface compressive stress in heat-strengthened and tempered glass.

### Detection of Critical Impurity In Tempered Glass (Noptic Scanner)

Critical Nickel Sulphide (NiS) impurity is widely known to cause spontaneous shattering in tempered glass. Unfortunately, these incidents have inflicted serious human injuries, damage to property and in some cases expensive litigation cost for damage.

One of the effective ways to prevent spontaneous shattering of tempered glass is to eliminate critical NiS impurity through Noptic Scanning. A Noptic technique uses the concept of total internal light reflection to pick up any inclusion within the cross section of a glass panel.

## SPEAKERS' PROFILE

### Mr Han Jee Juan

Han Jee Juan is the Asia Pacific Operations Manager at Viracon. His role includes all sales and marketing activities for Viracon in the Asia Pacific Rims. He works closely with architects and M&E Engineers to offer specification and design assistance, giving particular attention to providing practical glass solutions that meet project-specific performance and aesthetic needs. He also provides glass strength, performance and color analyses and assists in ETV calculations. He has given numerous presentations in technical conferences and universities on wide range of topics relating to glass and glazing throughout the Far East.

JJ Han has 23 years of experience in all aspects of glass and glazing. His background and experience has given him particular expertise in the areas of product performance, cost justification, heat gain calculations, glazing reviews as well as glass failure inspections and investigations. Some of the projects he was actively involved in were:

- |   |                                    |
|---|------------------------------------|
| 1. One Raffles Quay, Singapore          | 7. F1 + F2, Wellington             |
| 2. Samsung Seoho, Seoul                 | 8. Talavera, Sydney                |
| 3. 101 Taipei Financial Center, Taipei  | 9. Shanghai Shimao Plaza, Shanghai |
| 4. Asoke Complex, Bangkok               | 10. IFC 2, Hong Kong               |
| 5. New Doha International Airport, Doha | 11. Ogaki Computer Centre, Japan   |
| 6. Petrovietnam in Hanoi                | 12. RCBC, Manila                   |

He holds a professional degree in accountancy. He sat in the Technical Committee of SISIR, which is responsible for the preparation of SS341:1989 Specification for Safety Glazing Materials for Use in Buildings (Human Impact Considerations).

### Mr Mathieu Meur

Mr Meur is the Director of Meinhardt Facade Technology (MFT), a member of the Meinhardt Group. Through his training as a multi-disciplinary engineer and subsequent years with MFT, he has developed a broad spectrum of theoretical knowledge and practical experience, including structural engineering, material sciences, fluid mechanics, thermodynamics, acoustics and optics. Competency in these various disciplines is essential to the practice of façade engineering. Mr Meur has worked on numerous major construction projects with leading architects in Singapore and around the world. At MFT, he provides façade engineering advice on design, repair and maintenance of external envelopes such as curtain walls, claddings and skylights and has extensive knowledge of Singapore regulations and codes of practice.

### Mr Aw Chong Tze

Mr Aw Chong Tze, B.Sc. (Project & Facilities Management)

Mr Aw currently an Engineer in Setsco Services Pte Ltd has more than 5 years of experience and had numerous involvement in glass testing, failure analysis & assessments, assessment of façade problems, structural investigation, Non-destructive testing on glass and concrete over the past five years. Mr Aw has been involved and presently in glass testing section set up in 2003. Mr Aw's key expertise's are on non-destructive testing on glass and failure analysis of spontaneous shattering of tempered glass.

Seminar Title: Glass - It Can Make Or Break Your Projects!

Seminar Date: Friday, 19 September 2008

Seminar Time: 2.00pm to 5.50pm (Registration starts at 1.30pm)

Seminar Venue: Singapore Institute of Architects  
SIA Theatre - Level 1  
79 Neil Road  
Singapore 088904

Company : \_\_\_\_\_

Mailing Address: \_\_\_\_\_(S)\_\_\_\_\_

Contact Person: (\*Mr/ \*Ms)\_\_\_\_\_

Contact No. : (\*HP/ \*Office)\_\_\_\_\_ Fax No.: \_\_\_\_\_

Email Address.: \_\_\_\_\_

S/N	Name (Pls underline surname)	I/C No.	*SIA / *BOA/ *Student Membership No.	Amount S\$
1				
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- \$1.00 per half hour (day parking)  
- \$0.50 per half hour (after 5pm)

**CRAIG PLACE (Cashcard only)**

- 1st hour : 4 cents per min.
- 2nd hour : 3 cents per min.
- 3rd hour onwards : 2 cents per min.
- After 5pm : \$2.00 per entry

NEAREST MRT:  
Tanjong Pagar Station, Outram Park Station

**BUS SERVICES:**  
SBS - 103, 166, 197; TIBS - 61

CONTACT: 6226 2668

SIA  
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