### **SIA Event:**

# The New Norms in Façade + Lighting! from Design to Maintenance

New Technologies and new materials have allowed Architects to create more complex building forms around the world. The design and development of facades to enclose the building form has become an exciting and challenging task.

A well illuminated facade not only accentuates the building form at night, it also contributes to the urban street scape and environment. Thus, the Integration of lighting design is an essential consideration in façade design.

This seminar intends to kick-start the attendee's thinking process on buildability, sustainability and safety in complex façade design

Part 1 of the seminar attempts to give attendee an understanding on what complex facades are and the approaches to their design.

Part 2 explores the design considerations for façade lighting and shares case studies on the applications.

Part 3 then wraps up with an overview of the maintenance issues for complex facades and façade lighting.

#### Content

### Part 1 - Designing Complex Building Envelopes

What is a complex façade?

Issues Faced by Designers

**Designing Complex Façades** 

**Evolution of Complex Façades** 

Focus on Twisted and Bent Envelopes

Façades and Roofs: Parametric Modelling

### Part 2 - Modern Facades & Their Illumination

What constitutes successful façade illumination in modern architecture? To fully understand this one must consider and analyse many issues

before even thinking about Light...here are a few:

What is the buildings function... who needs to find it and use it?

Where is its location... who's looking at it?

What surrounds it and what is the buildings relationship to its immediate environment?

What is the proposed design intent for the façade (this is not to be confused with a separate design intent for *potential* illumination of the facade)?

Does the façade have a hierarchy of orientation (vertical or horizontal) or of material?

What are the proposed materials and their relationship with one another? What are these materials texture and their reflectivity?

Do any of these façade elements have a function such as solar screening? How will these façade elements be maintained over its life?

### Part 3 - Design To Facilitate Access And Maintainability Of Façades

Access and Maintainability

Project conditions to be considered

Use of restraints / guides

Distance to façade

Access to all façades

Access to BMU

Weather conditions for maintenance

Design façades for maintainability

Awareness that regular maintenance increase façade life Use of consultants to provide time- and cost-effective solutions

Holistic and proactive approach to maintenance

### **EVENT DETAILS**

Date : 19 August 2016, Friday

Time : 2.00pm - 5.00pm

(Registration will start from 1.30pm onwards)

Venue : Singapore Institute of Architects

SIA Theatrette - Level 3 79B Neil Road (S) 088904

BOA-SIA CPD: 4 CPD points

Seminar fees: SIA Members (\$70.00),

Non Members (\$140.00) (fees inclusive of GST)

Closing date : 12 August 2016

### PROGRAMME SCHEDULE

1.30pm Registration

2.00pm Presentations

**Topic 1 - Designing Complex Building** 

**Envelopes** 

Speaker – Mr Mathieu Meur

2.45pm *Topic 2 - Modern Facades & Their* 

Illumination

Speaker – Mr Kevin Sturrock

3.30pm Tea Break

3.50pm Topic 3 - Design To Facilitate Access And

Maintainability Of Façades

Speaker – Mr Mathieu Meur

4.30pm Q & A

5.00pm End of event

For more information, please contact SIA (Ms Jacey Tay):

Tel: (65) 6226 2668 Fax: (65) 6226 2663 Email: cpd@sia.org.sg

Organized by:



CPD PROGRAMME: 2016/064/MS/JT

GST REG. NO.: M9-0001281-J G.N. No. 565 in Gazette No. 27

### **SIA Event:**

## The New Norms in Façade + Lighting!

### from Design to Maintenance



Mr Mathieu Meur Managing Director, Meinhardt Group

### Profile

Mathieu provides the strategic leadership as the Managing Director for Meinhardt Group's global façade consultancy business. Mathieu has worked on numerous major construction projects in Asia, Australia, the Middle East and beyond, including Resorts World at Sentosa, The Reflections at Keppel Bay, Republic Polytechnic and The Dubai Mall, currently the largest mall in the world. Through his training as a multi-disciplinary engineer and subsequent years of experience at Meinhardt Façade Technology, Mathieu has developed extensive knowledge of all types of building envelope systems, their design, engineering and related codes of practice.

#### **Synopsis**

### Topic 1 - Designing Complex Building Envelopes

What is a complex façade?; Issues Faced by Designers; Designing Complex Façades; Evolution of Complex Façades; Focus on Twisted and Bent Envelopes; Façades and Roofs: Parametric Modeling

### Topic 3 - Design To Facilitate Access And Maintainability Of Façades Access and Maintainability

Project conditions to be considered; Use of restraints / guides; Distance to façade; Access to all façades; Access to BMU; Weather conditions for maintenance; Design façades for maintainability; Awareness that regular maintenance increase façade life; Use of consultants to provide time- and cost-effective solutions; Holistic and proactive approach to maintenance



Mr Kevin Sturrock Director, DP Lighting Pte Ltd

#### **Profile**

Specialised in architectural lighting & illumination design upon graduation 28 years ago. Responsible for the designs of numerous and varied projects globally.

Prior to establishing DPL was founder of iLAB, a successful independent lighting design consultancy. Experience also with LDP, Lam Partners Inc and collaborations with pioneers of architectural lighting, William M. C. Lam & Jonathan Speirs.

He is a past visiting Lecturer at various UK universities.

### Synopsis

### **Topic 2 - Modern Facades & Their Illumination**

What is it that constitutes successful façade illumination in modern architecture?

To fully understand this one must consider and analyse many issues before even thinking about Light...here are a few:

- What is the buildings function... who needs to find it and use it?
- Where is its location... who's looking at it?
- What surrounds it and what is the buildings relationship to its immediate environment?
- What is the proposed design intent for the façade (this is not to be confused with a separate design intent for potential illumination of the facade)?
- Does the façade have a hierarchy of orientation (vertical or horizontal) or of material?
- What are the proposed materials and their relationship with one another?
- What are these materials texture and their reflectivity?
- Do any of these façade elements have a function such as solar screening?
- How will these façade elements be maintained over its life?

After fully understanding these and other architectural issues only then can one even start to think about the architectural façade + Light... and the first question one should ask ones self is "does this façade actually need nighttime illumination". We will aim to discuss these issues using case study reference material including examples of recently completed projects around the world and also looking at current design-in-progress.



### **Application Form**

EVENT DETAIL G.N. No. 565 in Gazette No. 27					
Seminar : The New Norms in Façade + Lighting! - From Design to Maintenance  Date : 19 August 2016, Friday  Time : 2.00PM - 5.00PM (Registration will start from 1.30pm onwards)  Venue : Singapore Institute of Architects, SIA Theatrette - Level 3 (79 Neil Road, Singapore 088904)  BOA-SIA CPD : 4 CPD points  Seminar fee : \$70.00 (SIA Members), \$140.00 (Non Members) - fees inclusive of GST  Closing date : 12 August 2016					
Please fax / email the completed registration form to Ms Jacey Tay: Tel: (65) 6226 2668 Fax: (65) 6226 2663 Email: cpd@sia.org.sg					
And follow up wi Please tick your m	th cheque / cash / online paymode of payment:	ient to Singapore Institu	te of Architects.		
[ ] Cheque Bank/Chq #: Amt S\$: Local Cheque (must be drawn in Singapore) should be crossed and made payable to "Singapore Institute of Architects".  Mail to SIA address: Singapore Institute of Architects 79B Neil Road, Singapore 088904 Please indicate your name, company/institution and course date/title on the back of the cheque.			[ ] Cash You can drop by SIA office to make cash payment between 9.30am – 5.30pm on weekdays.  [ ] Online Payment http://members.sia.org.sg/payment/sia-20160819-PM.html (It is mandatory to provide us with your Receipt ID # after your credit card payment transaction) Receipt ID #:		
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**Please take note that all the above fields are mandatory. Incomplete form will not be process.					
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 written notification is made at least 3 days before the event.  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.  Registration Confirmation No.:-					