

CPD

PROGRAMME

SINGAPORE INSTITUTE OF ARCHITECTS



A Seminar jointly organised by Singapore Institute of Architects and
Shanghai Xinan Curtain Wall Building & Decoration Co.Pte Ltd

Numerical Buildings in China

- Brief Introduction on the Practice of Special-shaped Reticulated Shell Buildings

Date : 05 Nov 2009, Thursday
Venue : Singapore Inst. of Architects
SIA Theatre - Level 1
79 Neil Road S(088904)
Time : 7.00PM - 9.00PM

6.30pm	Registration & Light Refreshment
7.00pm	Welcome Remarks by SIA
7.05pm	Numerical Buildings in China
8.30pm	Questions & Answers
9.00pm	End

SIA Member	Complimentary
BOA/CIJC Member	S\$ 35.00
Non-Member	S\$ 45.00

BOA-SIA CPD Accreditation: 2 points

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2009/133/MS/CT

SYNOPSIS



上海国际会议中心--候船大厅
上海信安幕墙建筑装饰有限公司

Over the recent years, some buildings different from traditional design appear at some places in the world. They show irregular curves, and their surface cannot be expressed by means of mathematics equation and be presented clearly by using 2-dimensional drawings. Most of them are designed with transparent shell just like special skylights, so that the tube truss system and the grid structure system are no longer suitable in this situation. As a result, a new structural form - the single grid system of special-shaped shell emerges.

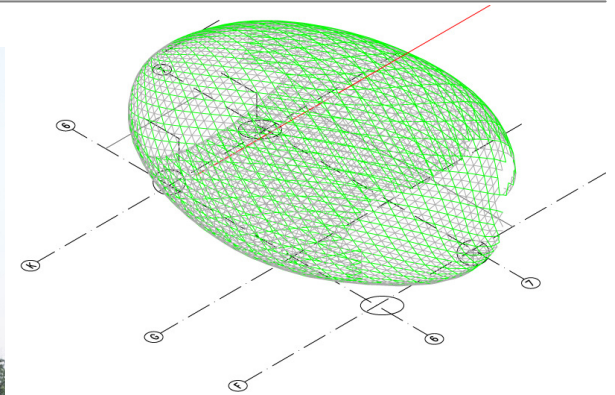
In the past 2 years, single grid systems of special-shaped shell have been constructed in China. Based on 3-dimensional mathematical model in computer, their structure is completely analyzed by means of finite element method in computer, and their machining data are completely delivered by computer, their main products are completely fabricated on machining center controlled by computer, and finally their installation process is completely controlled by means of 3-dimensional coordinate in computer in order to achieve a satisfied architectural appearance. Numerical building is therefore defined.

What is numerical diagram?
What is a numerical building?

How to realize numerical diagram perfectly?
Which system is suitable for numerical building?

Rails joint at nodes in the space, and the node is the key of the single grid system of special-shaped shell.
How to produce the nodes in mass production at factory?

These various points will be presented through 2 examples by the Speaker





Mr. Zhou Kailin

Board chairman of Shanghai Xinan Curtain Wall Building & Decoration Co., Ltd.
 Board chairman of Sinobau Numerical Control Machine Manufacturing (Shanghai) Co., Ltd.
 Board chairman of Shanghai Sinobau Architecture Engineering Consultation Co., Ltd.
 Standing Deputy Director of Curtain Wall Engineering Center of Institute of Shanghai Metal Structure Industry
 Chief Editor of *“Technical Rule of Shanghai Curtain Wall Engineering”* 2009 edition
 Specialist to compile national standard of China *“the Quality Acceptance Rule of Aluminum Structure Engineering”*
 Specialist to compile national industrial standard of China *“the Rule of Aluminum Structure Engineering”*

The following 8 patents are under his name:

Patent 1: Grinding & drilling tool for stone and non-metal panel
 Patent 2: Anchoring bolt & supporting sleeve for stone and non-metal panel
 Patent 3: New type host for stone drilling machine
 Patent 4: Drilling machine for panel, combinable and with single host
 Patent 5: Node components for building grid
 Patent 6: Connecting components for building truss
 Patent 7: Electrical ventilator device to maintain close space of building
 Patent 8: Connecting components for metal thin-shell framing

He was awarded with “2008 Technological Innovation Results of Nationwide Architectural Decoration Industry” (only prize of curtain wall industry in China 2008) by right of inventing electrical ventilation valve for curtain wall registered with national patent.

In accordance with architectural entire climate control theory, he designed a considerably energy-saving unitized curtain system which was successfully used for No.1 office building of Shanghai Pujiang Intelligence Valley - nationwide energy saving model project, which was awarded with “2007 Magnum Opus of China Energy-saving Building”, “Golden Award of Nationwide Energy Saving” and “2009 Superfine Certificate of Nationwide Architectural Energy Efficiency” and became a famous energy-saving building and a model during Shanghai Expo start-up.

In October 2006, Minister of Traffic & Construction of Germany awarded personally Energy-saving Certificate of Germany Government at the site. The building became only one awarded with the certificate in China.

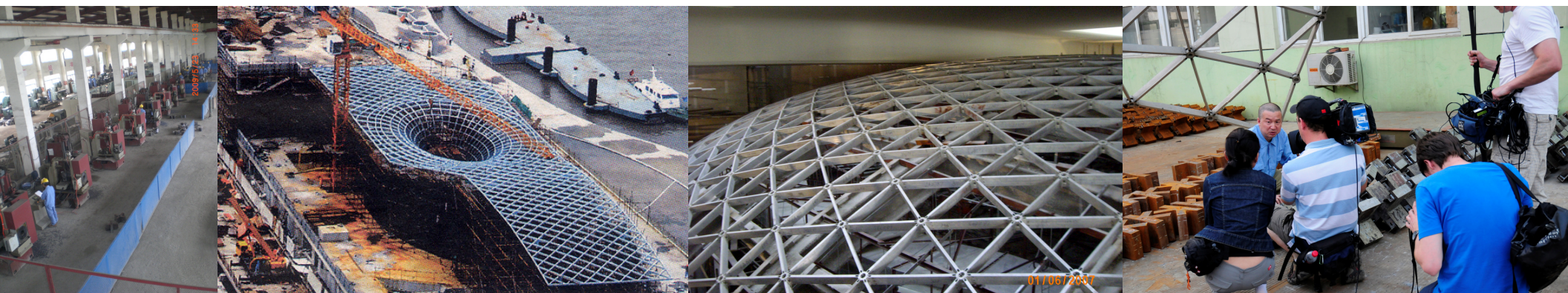
He invented new operation principle for stone drilling machine and produced successfully new equipment so as to increase number of effective drilling by each stone drilling bit from original average 180 to average 450 and registered with national patent.

He invented shaft-type opening system and intelligent control system specially for curtain wall operable sash which was firstly used for Vietnam National Conference Center in Hanoi, Vietnam with total of 982 sets. The building was adopted as the main conference hall of APEC, and called as “the Greatest Building in Vietnam” by Vietnam government.

He directed to design curtain wall fabricating center and develop computer automatic software which became the first curtain wall component fabricating center with domestic intellectual asset, controlled by PC and operable without need of CNC training in China.

He invented single grid system of special-shaped aluminum shell which was used to construct the first curved aluminum extrusion spherical structure unable to be expressed by means of mathematics equation (see the following figures) and registered with national patent.

His recent projects include: Shanghai Expo Water Gate - Shi Liu Pu special-shaped canopy, Shanghai Port International Cruise Terminal. He was also interviewed specially by Building Wonder Program of Discovery Channel (USA).



REGISTRATION FORM

Numerical Buildings in China

- Thursday, 05 Nov 2009 - 7pm to 9.00pm
- SIA Theatre - Level 1



(All seminar fees are inclusive of GST)

*SIA Member	Complimentary
BOA/CIJC Member	S\$ 35.00
Non-Member	S\$ 45.00

•For SIA Members whose registrations have been confirmed, attendance is compulsory. Absentee/Cancellation 3 days before event will be charged \$20.00. Verbal notification of cancellation is not acceptable.

Closing Date for Registration	30 Oct 2009
BOA-SIA CPD Accreditation	2 points

PARTICULARS

Name: _____
(please underline Surname)

NRIC No: _____

Membership No: [] SIA _____

[] CIJC (Pls specify Institution)

[] BOA Reg No _____ [] Non-Member

Organisation: _____

Address: _____

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Fees paid are non-refundable under all circumstances. Replacement of participant will be allowed only if written 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.

MULTIPLE REGISTRATION

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PAYMENT OPTIONS

Please tick your payment mode:

[] By Cheque

Bank/Chq # : _____ Amt S\$: _____

Local Cheque (must be drawn in Singapore) should be crossed and made payable to "Singapore Institute of Architects".

Please mail to:

Singapore Institute of Architects
79B Neil Road, Singapore 088904

Please indicate your name and company/institution (if any) and seminar date/title on the back of the cheque.

[] By Cash

You can drop by the SIA office to make cash payment between 9.30 am - 5.30 pm on weekdays.

Address:
Singapore Institute of Architects
79B Neil Road, Singapore 088904

*** All 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.

Registration Confirmation No.:-

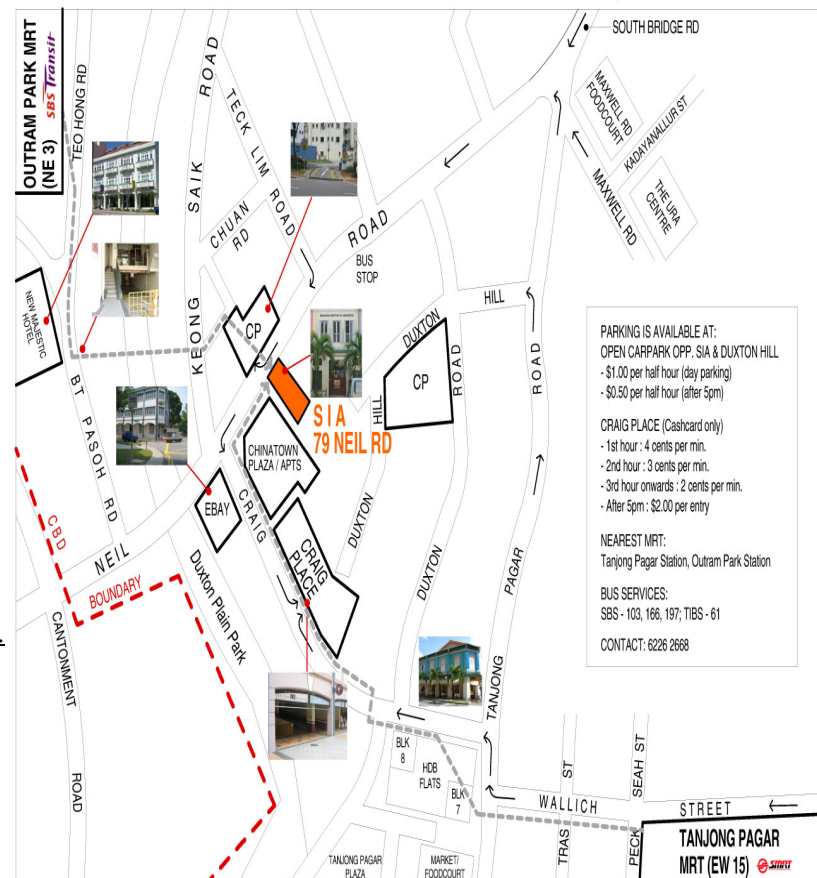
For Enquiry (Ms. Candy Tan):

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Email: cpd@sia.org.sg

LOCATION MAP



PARKING IS AVAILABLE AT:
OPEN CARPARK OPP. SIA & DUXTON HILL
- \$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

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