

Half Day Seminar on “Optimize Steel Frame Design with Semi-Rigid Joints”

(Co-organised with Otte Utama (M) Sdn Bhd.)

Date : Saturday, 8 June 2024
Time : 9:00 a.m. – 1:00 p.m.
Venue : IEM (Southern Branch) Training Centre, 24B, Jalan Abiad, Taman Tebrau Jaya, 80400 Johor Bahru, Johor.
Speaker : (1) Er. Choo June Shyan– Technical Director of OTTE Group
(2) Mr. Vlastimil Konecny – Product Engineer of IDEA StatiCa APAC

Synopsis

Engineers typically design steel frames with simple connections due to their simplicity in design calculation and the perceived lower construction cost. Rigid connections, on the other hand, are often avoided at all costs due to their complexity in design calculation and their presumed high construction cost. Semi-rigid connections are hardly used, even though engineers understand that structures designed with such connections will be the most cost-effective option. Engineers do not design steel framing with semi-rigid connections due to the complexity of determining the joint stiffness for global FEM analysis and the detailed design for such connections.

This seminar will overview Steel frame design with advanced numerical software. We will compare the effects of different connection types, namely: Simple, Rigid and Semi-rigid. We will also discuss how engineers can validate the correctness of their assumed connection models based on their connection configuration. Finally, we will have a thorough overview of the process of modelling and design with Semi-rigid connections using the (2) State-of-The-Art software: IDEA StatiCa and CSI SAP2000.

| Time | Tentative Programme |
|-------------------------|--|
| 8:30 a.m. – 9:00 a.m. | Registration |
| 9:00 a.m. – 9:10 a.m. | Welcome Speech by IEM (SB) Organising Committee |
| 9:10 a.m. – 10:30 a.m. | Session 1: - Introduction - IDEA Statica & Otte/CSI - Overview of Advanced Steel connection analysis & design |
| 10:30 a.m. – 10:45 a.m. | Coffee Break |
| 10:45 a.m. – 12:30 p.m. | Session 2: - Overview of Steel Frame Design with FEM using Direct Analysis Method - How to model, analyze and design Steel Frame with Semi-Rigid joints |
| 12:30 p.m. – 1:00 p.m. | - Discussion/Case Study - Question & Answer Session |
| 1:00 p.m. | Closing & End of Talk |

About the Speakers:



Er. Choo June Shyan P.E.

MSCE, MPW, BSCE
M.ASCE (USA), M.SEI (USA), MIES, MSSSS

Er. Choo is a Singapore Registered Professional Engineer with over 30 years of building design experience, both in Singapore and the USA. He had designed over 200 Light-gauge steel frame structures scattered throughout the USA, as well as many RC and Steel buildings in Singapore during his tenure as a consultant in a major consulting company. Er. Choo has extensive experience in computer-aided analysis and design using advanced engineering software. He is well-versed in advanced numerical analysis, including Nonlinear Dynamic Analysis and Performance Based Design. He serves as the Technical Director of the Otte group of companies, specialising in advanced and innovative IT solutions for Building, Structural and Geotechnical Engineering professionals. Er. Choo has conducted numerous training courses and seminars in Singapore, Malaysia, and other countries.



Mr. Vlastimil Konecny

Product Engineer
IDEA StatiCa APAC

Vlastimil Konecny is a Senior Product Engineer at IDEA StatiCa. He previously worked at IDEA StatiCa headquarters in Brno, Czech Republic, Europe, before joining the IDEA StatiCa Asia and Pacific team in the Singapore office. Currently, he manages channel sales operations for Singapore and Malaysia. With over eight years of experience in designing civil engineering concrete and steel structures, he has participated in various projects, including the renovation of the Faculty of Philosophy and the Faculty of Law at Masaryk University in Brno, as well as the new residential area Ponava City in Brno, among others. He graduated from Brno University of Technology with a Master of Science in Civil Engineering, specializing in Structural Engineering, and has been working in this field ever since.

Participant Fees:

| Grade | Fee |
|----------------|-----------|
| IEM Members | RM 80.00 |
| Non-IEM Member | RM 150.00 |

Closing Date: 5 June 2024

**EARLY BIRD FOR IEM MEMBERS
BEFORE 27TH MAY 2024
RM 60.00 NETT**

The seminar is strictly limited to 30 participants only. Registration will be on a first-come-first-serve basis. Kindly return the reply slip to the IEM (SB) office before **5 June 2024** together with a non-refundable cheque for the participant fees made payable to ***The Institution of Engineers, Malaysia (Southern Branch)***. Alternatively, you could bank-in the participant fees into the **Institution's Maybank Current Account (No. 5-013920-15708)**, and to facsimile both the Bank-in and Reply Slips to the Institution. The Institution requests all members co-operation in ensuring fees are paid in advance for the seminar. Please also be reminded that fees will not be refunded to absent participants who have paid, and to also note that all reservations must be paid despite participant cancellations. Thank you for your continuous support of the Institution.

Chairman, Sub-Committee on Seminar and Technical Talk, IEM (SB)

BEM Approved
CPD Hours: 4.0
Ref No: IEM24/SB/165/S

REPLY SLIP

To: Hon. Secretary, The Institution of Engineers, Malaysia (Southern Branch) **Fax: 07 – 3363406**
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Saturday, 8 June 2024, 9:00 a.m. – 1:00 p.m.
at IEM (Southern Branch) Training Centre, Johor Bahru.

I wish to attend the above talk. I enclosed herewith a cheque no. for the amount of RM.....as payment for the participant fee.

Name of Member: Membership No: I/C No:
Address: Tel(O):(Fax).....
..... Tel (H/P):
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Signature: Date:

Note : Kindly **email the Reply Slip together with the payment slip to iemsouthern@gmail.com** for confirmation.
: Attendance by representative will not be issued with the Certificate of Attendance.

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