



# HALF DAY SEMINAR

# SEISMIC-RESISTANT PRECAST CONCRETE STRUCTURES: AN OVERVIEW OF PRECAST BUILDING CONNECTIONS IN SEISMIC REGION, DESIGN CONCEPT AND CASE STUDY

# OUR SPEAKERs: Mr ENRICO NUSINER & Mr GARY CONNAH

Date	: 01 <sup>ST</sup> DECEMBER 2022 (Thursday)
Platform	: PHYSICAL EVENT
	MALAKOFF AUDITORIUM, GROUND FLOOR WISMA IEM, P.JAYA,
Time	: 2.00 p.m. – 6.00 p.m.

BEM APPROVED CPD/PDP HOURS : 4.0 REF. NO : IEM22 / HQ / 463 / S

### Closing Date: 23RD NOVEMBER 2022

<u>NO</u> online registration will be allowed after the Closing Date. LIMITED TO THE 1<sup>ST</sup> 120 REGISTERED PARTICIPANTS ONLY (First-Come-First-Serve Basis) (No Walk-In ALLOWED)

# Organized & Hosted by : Civil and Structural Engineering Technical Division (CSETD), IEM In Collaboration with : Leviat Sdn Bhd

#### **Cancellation Policy**

No cancellation will be accepted prior to the date of the event. However, replacement or substitute may be made at any time with 7 days prior notification and substitute will be charged according to membership status.

#### Personal Data Protection Act

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## **SYNOPSIS**

Industrialised Building System (IBS) or Precast Concrete Building is gaining its popularity globally and in many developed countries, precast buildings are preferred over cast-in place construction due to the many advantages. In the last decade, Construction Industry Development Board (CIDB) has implemented various initiatives to enhance productivity by promoting adoption of IBS. IBS components are manufactured off-site leading to the best use of materials, structural efficacy, speed of construction, cost control, quality consciousness, sustainability and less worker depency.

Are precast elements suitable to be adopted for all building structures? What are the other external factors that influence the decision of the engineer in choosing precast over cast-in-place (CIP) construction? Can we design precast connections for building structure to be seismic/earthquake-resistant?

We are fortunate that Malaysia is not located in the ring of fire compared to Indonesia, Phillippines. Nevertheless, we are not spared, especially in East Malaysia region from the tremors of earthquakes that struck our neighbouring countries.

Malaysia has enacted MS EN 1998-01:2015 (National Annex: 2017) and MS EN 1998-1:2005 Eurocode 8: Design of Structures for Earthquake Resistance. This standard is relevant for building development at areas that have been identified and susceptible to earthquake to ensure less damage to critical properties such as hospital, police station and other critical buildings. Can precast building structure also exhibit the performance required.

In this seminar, our engineers from Italy and Singapore will share their insight and experience on the role of precast connections in seismic region and their relationship to selected behaviour factors q (as used in the Eurocode, ductility factors  $\mu$  or reduction factors R). This will demystify the many concerns that the capacity of precast structures are limited in seismic event and how it can offer excellent resilience and the capacity for carrying unexpected loads of seismic instability. The difference design options for the frame systems will be shared and what types of connection are to be considered as the crucial aspect of structural design.

### **Seminar Objectives**

- To share insights with practicing engineers, consultants, designers and the industry
- To provide the knowledge on how the concept on seismic can be adopted in precast connections.
- To organise a forum for exchange of view among the engineers.

## **SPEAKERS**



## **SPEAKER 1**

*Mr Enrico Nusiner* has studied Master Degree in Structural Civil Engineering at Politecnico di Milano, Italy. After being the founder of 2 structural engineering companies from 1989 to 1997 (8 years), Enrico joined Halfen since 1997.

With more than 20 years of experience with Halfen, he has gained a wealth of specialist knowledge in precast concrete connection and reinforcement systems as well as lifting anchor technologies. Today, he is the Head of Customer Segment Precast at Leviat.

With the strong structural engineering technical background, Enrico is also the president of CTE, a national association of University Professors, Engineers and Business leaders of the construction industry - where he has organised International symposiums about building industrialization technology and also actively contributed to the Eurocode Technical Specification (Design for fastening in concrete).

## **SPEAKER 2**

*Mr* Gary Connah is a Chartered Professional Engineer and currently holds the position of Product Manager of Leviat focusing on Rebar Couplers and Continuity Systems, based in Singapore. He graduated from Loughborough University in the UK in 1996 and has gained extensive experience in mechanical splices as well as post installed and cast in anchor solutions in Europe, Asia and Australia.



As the ex-chair of the Construction Fixings Association in UK, he actively contributed to current anchor Approval guidelines in Europe and until recently held the position of Chair of the AEFAC technical committee; an industry initiative seeking to enhance the specification, selection, design and installation of structural anchors and fasteners in the Australian construction industry.

## PROGRAMME

TIME	PROGRAMME	SPEAKERs	
1.40 pm — 2.00 pm	Registration of Participants, Ground Floor @ Wisma IEM		
2.00 pm – 2.05 pm	Welcome Address & Opening Speech	CSETD	
2.05 pm – 4.00 pm	Session 1: Precast Structures in Seismic Area: The European Experience	Mr Enrico Nusiner	
4.00 pm – 4.15 pm	Q & A – Session 1		
4.15 pm – 4.30 pm	Coffee Break		
4.30 pm – 5.45 pm	Session 2: Unique Keys to Unlocking the Challenge of Precast, Seismic Performance	Mr Gary Connah	
5.45 pm – 6.00 pm	Q & A – Session 2		
6.00 pm	Closing and End of Seminar	r	
6.00 pm – 7.00 pm	Dinner @ D'Place (Ground Floor)		

# "IEM reserves the right to alter or cancel the programme due to unforeseen circumstances at its discretion'. IEM SHALL NOT be responsible for any direct or consequential losses".

For further details, kindly contact:

The Institution of Engineers, Malaysia Bangunan Ingenieur, Lots 60/62, Jalan 52/4, P.O. Box 223 (Jalan Sultan), 46720 Petaling Jaya, Selangor **Tel:** 603-7968 4001/2 **Fax** : 603-7957 7678

Email : shahrul@iem.org.my / parimala@iem.org.my / suriani@iem.org.my

**OUR FEES** 

#### HALF DAY SEMINAR

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### 01st DECEMBER 2022 (Thursday)

Email: shahrul@iem.org.my / parimala@iem.org.my / suriani@iem.org.my

#### LIMITED TO THE 1<sup>st</sup> 120 PARTICIPANTS ONLY

PARTICIPANTS COMMITMENT FEES

	ONLINE FEE (RM)	NORMAL FEE (RM) (via email)		
IEM Members	60.00	80.00		
Non-IEM Members	80.00	100.00		
To Note : Fees are lower as being sponsored.				

No	Name(s)	Membership No.	Grade	Fee (RM)*
SUB TOTAL				
	+ SST 6%			
	TOTAL PAYABLE			

#### **PAYMENT DETAILS :**

 Cash RM				
Cheque no	for the amount of RM	_(non refundable) and	made payable to "THE INSTITUTION OF EI	NGINEERS,
 MALAYSIA" and crossed 'A/C Pavee C	Only".			

<u>FULL PAYMENT</u> must be settled before commencement of the seminar, otherwise participants will not be allowed to enter the hall. If a place is reserved and the intended participant fails to attend the course, the fee is to be settled in full. If the participant failed to attend the course, the fee paid is non refundable. The Registration Fee includes lecture notes, refreshment and lunch (whichever available).

For <u>ONLINE REGISTRATIONS</u>, please note that payment **MUST** be made **BEFORE the closing date**. If payment is not received within the stipulated time, the registration fee will be reverted to the normal registration fee.

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• The Organizing Committee reserves the right to cancel, alter, or change the program due to unforeseen circumstances. Every effort will be made to inform the registered participants of any changes. In view of the limited places available, intending participants are advised to send their registrations as early as possible so as to avoid disappointment.