



# HALF DAY SEMINAR ON MATERIAL AND WORKMANSHIP FOR POST - TENSIONING WORKS (HYBRID) by Ir. Dr. Low Hin Foo

- DATE : 22 JULY 2023 (SATURDAY)
- PLATFORM : HYBRID ( PHYSICAL + ONLINE)
- PHYSICAL - AUDITORIUM MALAKOFF, GROUND FLOOR, WISMA IEM, Petaling Jaya.
- TIME : 9.00 a.m. - 1.30 p.m.
- CPD Hours : 4
- CPD Ref Number : IEM23/HQ/274/S (h)

**CLOSING DATE : 14TH JULY 2023**

**NO online registration will be allowed after the Closing Date.**

Jointly Organised & Hosted by :  
Civil and Structural Engineering Technical Division  
(CSETD), IEM &  
Engineers Australia Malaysia Chapter (EAMC)

#### 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

I have read and understood the IEM's Personal Data Protection Notice published on IEM's website at <http://www.myiem.org.my> and I agree to IEM's use and processing of my personal data as set out in the said notice.

## BIODATA OF SPEAKER



### Ir. Dr. Low Hin Foo

Ir. Dr Low Hin Foo graduated from University Malaya with an Honours degree in Civil Engineering in 1999. He obtained his Doctor of Philosophy in Engineering from Monash University in 2020 with his research on the experimental and numerical studies of a prestressed transfer plate subjected to staged casting and sequential stressing based on the actual prestressed transfer plate project in Kuala Lumpur. He has more than 22 years of design and construction experience in of prestressed building structures as well as various types of long-span bridges both locally and abroad. He was the Technical Manager for international prestressing specialist contractor, BBR Construction Systems (M) Sdn Bhd; and he is currently the Principal Engineer of a multidisciplinary consultancy firm, OSD Consultants (M) Sdn Bhd, as well as the Managing Director of OS Alliance (Singapore) Pte Ltd, and the Group Managing Director of OSD Alliance Design Group. Ir. Dr Low has vast design experience in the detailed design, construction and costing of prestressed structures for large commercial projects and high-rise towers, particularly in handling the design of prestressed flat slab or flat plate systems with irregular column grids, including prestressed transfer plates and raft foundation. Besides that, he has plenty of experience in the design and construction of integral bridges using precast girders made continuous, as well as long span bridges using precast and cast in-situ prestressed segmental box girders (SBG) and cable-stayed bridges. Throughout the years, Ir. Dr. Low has contributed to the development of our nation by participating in numerous major infrastructure projects, including the detailed design of MRT stations and long-span crossings for KVMRT line 1 and line 2, elevated bridge viaducts in DASH and SUKE highways, as well as serving as the Independent Checker Engineer (ICE) for the structural design of the entire elevated guideways and viaducts of LRT3 and RTS.

With his academic and practical industry experience, Dr Low is appointed as a committee member of the academic panel for Master of Structural Engineering and Construction Program of Universiti Putra Malaysia (UPM), Standing Committee Member of REAM Education Fund Committee, subcommittee of Engineers Australia Malaysian Chapter, and technical committee of the Structure Division of the Institute of Engineers Singapore (IES). He has also actively involved in seminars and training courses for engineers and undergraduates conducted by IEM, IES, JKR and various local universities and abroad on the design of bridges and prestressed building structures.

### SYNOPSIS

Post-tensioning works have been an important structural element for bridges and viaducts. To ensure the performance of the structure, engineers need to make sure the material and workmanship of the prestressing components are properly done at construction site. In the first part of the talk, the primary function of each component as well as the industry requirements on the materials for the post tensioning works will be explained. This includes the pc strands, post-tensioning anchorage system, sheath/ducts, grouts, and the requirements for tensioning and grouting apparatus. Besides that, the relevant material testing and their acceptance criteria will be discussed. In the second part, the talk will explain the construction of the post tensioning works at site and the QA/QC requirements on the workmanship. This will cover the tendon installation, inspection before concreting and tensioning works, supervision during concreting as well as the grouting works. During this talk, the engineering fundamental of using tendon elongation as part of the QA/QC work in the prestressed beam design will be explained. Along with this, participants will be shown how to analyse the tendon stressing records as well as the possible remedial work proposal for excessive positive or negative tendon elongations. On top of that, type of common site issues during tendon stressing and grouting works, and their possible contingency plans on how to handle these unlikely events will be discussed in the talk.

## PROGRAM TENTATIVE

### 1. Material for Post-Tensioning Works (75 min)

- PC Strands
- Post-Tension Anchorage Systems
- Sheath/ Ducts
- Grouts
- Types of Material Testing
- Tensioning and Grouting Equipment

### 2. Workmanship for Post-Tensioning Works (150 min)

- Inspection Before Concreting
- QA/QC for Concreting
- Inspection Before Cable Tensioning
- Tendon Elongation vs Stressing Force
- QA/QC for Grouting
- Contingency Plan for Stressing & Grouting Works

### 3. Questions & Answers (15 min)

## NOTE:

Registration & Welcome Coffee Tea Time : 08.30 a.m. - 9.00 a.m.

Morning Coffee Tea Break Time : 10.30 a.m. - 10.45 a.m.

Lunch Break Time : 1.00 p.m.

"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 : [shamalaheiem.org.my](mailto:shamalaheiem.org.my) / [shahrul@iem.org.my](mailto:shahrul@iem.org.my)

# REGISTRATION FORM

HALF DAY SEMINAR ON MATERIAL AND WORKMANSHIP FOR POST -TENSIONING WORKS (HYBRID)

22 JULY 2023 (SATURDAY)

Email : [shamalah@iem.org.my](mailto:shamalah@iem.org.my) / [shahrul@iem.org.my](mailto:shahrul@iem.org.my)

## HYBRID PLATFORM FEE'S

	ONLINE FEE ATTENDANCE (RM)	PHYSICAL FEE ATTENDANCE (RM)
IEM Student Members	40.00	100.00
IEM Graduate Members	75.00	180.00
IEM Corporate Members	120.00	300.00
EAMC Members (reg STRICTLY via Email)	Same as IEM Member's Fee	
Non-IEM Members (None of the Above)	240.00	500.00

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

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# REGISTRATION FORM

Cash RM \_\_\_\_\_

Cheque no. \_\_\_\_\_ for the amount of RM \_\_\_\_\_ (non refundable) payable to "The Institution of Engineers, Malaysia" and crossed as a/c payee only

FULL PAYMENT 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 ONLINE REGISTRATIONS, 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.

Contact Name:			
Organisation:			
designation			
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Hand phone No.			
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SIGNATURE \_\_\_\_\_

STAMP \_\_\_\_\_

# ADVERTISEMENT BOOKING FORM (EVENT BOOKLET)

HALF DAY SEMINAR ON MATERIAL AND WORKMANSHIP FOR POST -TENSIONING WORKS (HYBRID)  
22 JULY 2023 (SATURDAY)

Organized by : Civil & Structural Engineering Technical Division (CSETD)  
Tel: 603-7968 4001/2 Fax : 603-7957 7678  
Email: shamalah@iem.org.my / shahrul@iem.org.my

Chairman, Civil & Structural Engineering Technical Division (CSETD),  
We would like to place an advertisement in the EVENT BOOKLET of the 2 day PREparatory course for the chartered membership examination of the institution of structural engineers (20th & 21st june 2023) as indicated below and attach herewith

cheque no. .... for the sum of RM ..... made payable to "THE INSTITUTION OF ENGINEERS, MALAYSIA" being our booking fees:-

Tick (✓)	Location	Adv rate	Complimentary Participant Seat	Promotion Table @ Registration Foyer Only
	Outside Back Page (Colour)	RM 6,000.00	3 seats	1 table 2 chairs
	Inside Front Page (Colour)	RM 4,500.00	2 seats	1 table 2 chairs
	Inside Back Page (Colour)	RM 4,500.00	2 seats	1 table 2 chairs
<b>PAYMENT DETAILS</b>	Inside Run of Page (Colour)	RM 2,500.00	1 seats	nil

- ACCOUNT NAME : THE INSTITUTION OF ENGINEERS, MALAYSIA
- ACCOUNT NUMBER : 232-303-911-0
- BANK NAME : UNITED OVERSEAS BANK (UOB)
- BANK ADDRESS : NO 2-6, JALAN TENGAH, 46200 PETALING JAYA, SELANGOR
- SWIFT CODE : UOVBMK1025
- EMAIL ADDRESS FOR RECEIVING REMITTANCE ADVISE :  
FINANCE@IEM.ORG.MY/SHHRUL@IEM.ORG.MY/SHAMALAH@IEM.ORG.MY

## CONTACT INFO

<b>Contact Name:</b>				
<b>Organisation:</b>				
<b>Designation</b>				
<b>Mailing Address:</b>				
<b>Contact Nos.:</b>	<b>Tel:</b>		<b>Fax:</b>	
<b>Contact Num</b>				
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**Civil and Structural Engineering Technical Division**  
**(CSETD), IEM & Engineers Australia Malaysia Chapter (EAMC)**