The Institution of Engineers, Malaysia
(Southern Branch)
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Half-Day Talk on "Design and Construction of Precast and Cast In-Situ Concrete Segmental Box Girder Bridges"

Date : Saturday, 25 February 2023
Time : 9.00 a.m. – 1.00 p.m.
Venue : IEM (Southern Branch) Training Centre, 24B, Jalan Abiad, Taman Tebrau Jaya, 80400 Johor Bahru.
Speaker : Ir. Dr. Low Hin Foo

Synopsis

Precast Concrete Segmental Box Girder (SBG) bridges have become the preferred viaduct option for highly urbanised and congested city areas. SBG construction offers the advantages of fast and versatile construction at difficult site conditions, minimum traffic disruption and less impact on environment during construction; besides higher controlled quality and aesthetically pleasing bridge viaducts.

This topic provides an overview of the design and construction of concrete Segmental Box Girder (SBG) bridges using precast and cast in-situ methods. During the talk, the advantages and limitation of the precast and cast in-situ segmental box girder bridge will be compared along the precast beam-slab structure. Apart from that, the fundamental design consideration of concrete SBG bridges, and the typical prestressing and steel bar reinforcement details will be explained.

Types of temporary work required in the erection of the precast Segmental Box Girder, as well as the operation of form traveler (bridge builder) for the cast in-situ segmental box girder will be included in this session. The short-line pre-casting method at casting yard, and the concept of precast SBG geometry control, as well as the types of precast SBG erection and launching methods commonly in Malaysia and Singapore will be presented. Some of the construction related matters like, temporary fixity system, prechamber design and Christmas tree and the mid-span stitching will be explained.

About the Speaker:

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 multi-disciplinary 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.

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 Committee, sub-committee 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

Participant Fees:

Grade	Fees
IEM Student Member (Free limit to 10 pax)	RM 10.00
IEM Non-Student Member	RM 25.00
IEM YES Member	RM 25.00
IEM Member	RM 75.00
Non-IEM Member	RM 120.00

Closing Date: 17 February 2023

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 **17 February 2023** 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 to 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/PDP Hours: 4.0
Ref No: IEM23/SB/004/T

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To: Hon. Secretary, The Institution of Engineers, Malaysia (Southern Branch) **Fax: 07 – 336 3406**

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at IEM (Southern Branch) Training Centre, 24-B, Jalan Abiad, Taman Tebrau Jaya, 80400 Johor Bahru, Johor

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): .....

..... E-mail: .....

Company's Name: .....

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

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