

## CSETD PRE AGM TALK

ON

### “ANALYSIS AND DESIGN OF A PRESTRESSED CONCRETE GIRDER BRIDGE”

Organized by the Civil and Structural Engineering Technical Division (CSETD)

BEM Approved CPD/PDP: 2 Hours

Ref.: IEM19/HQ/249/T

Date : 13<sup>TH</sup> JULY 2019 (Saturday)  
Time : 09.00 a.m. – 11.00 a.m.  
Venue : Auditorium Tan Sri Prof. Chin Fung Kee,  
3<sup>rd</sup> Floor Wisma IEM,  
Petaling Jaya, Selangor  
Speaker : Ir. LOW HIN FOO

#### SYNOPSIS

This two-hour talk highlights the analysis and design of a concrete bridge constructed with simply-supported precast prestressed concrete girders. Participants will be introduced to bridge modelling using grillage analysis method and how engineers apply the bridge loading into the model. From the study of the analysis results, the speaker will explain the bridge deck behaviour as well as the deck slab local effect. During the last part of the talk, the speaker will demonstrate the prestress design of bridge girders.

#### Topic: Analysis and Design of Prestressed Concrete Girder Bridge

- ❖ Basic Bridge Structural Components
- ❖ Understanding the Bridge Structural Behaviour
- ❖ Introduction to Bridge Grillage Analysis
- ❖ Bridge Modelling Techniques
- ❖ Load Input for Bridge Analysis
- ❖ Studying Bridge Analysis Results
- ❖ Deck Slab Local Effect
- ❖ Bridge Girder Design (Prestress Design)

#### SPEAKER'S BIODATA

**Ir. LOW HIN FOO** graduated from University Malaya with an Honours degree in Civil Engineering. Since then he has more than 18 years of design and construction experience in various reinforced concrete and post-tensioned buildings as well as bridges both locally and abroad. He was the *Technical Manager* for prestressing specialist contractor, *BBR Construction Systems*, and he is currently the *Principal Engineer* for a design consultancy firm, *OSD Consultants (M) Sdn Bhd*. He is currently working with Monash University Malaysia on research projects on prestressed transfer plate. He is also actively involved in the training of engineers and undergraduates by conducting courses on the design of prestressed building and bridge structures.

Ir. Low has vast design experience in the design of prestressed structures for large commercial projects and high-rise towers. He has the specialized experience in handling the design of prestressed flat slab or flat plate systems with irregular column grids, including prestressed transfer plates. Besides, he has involved in the design and construction of few long span prestressed bridges built by balanced cantilever method and he is familiar with the design of integral bridge with prestressed girders made continuous. He has particular experience in the design of the structural strengthening and rectification works for reinforced concrete and prestressed structures, design of steel arch bridges, jetty and wharf structures and other specialized structures.

**Ir. CHONG CHEE MENG**

**Chairman**

**Civil and Structural Engineering Technical Division (CSETD)**

#### ANNOUNCEMENT TO NOTE

##### FEES

(Effective 1<sup>st</sup> October 2017)

##### Members

Registration Fee :	No Charge
Administrative Fee :	
<u>Online</u>	RM15
<u>Walk In</u>	RM20

##### Non-Members

Registration Fee :	RM50
Administrative Fee :	RM20

- Limited seats are available on a "first come first served" basis (maximum 100 participants).
- To secure your seat, kindly register online at [www.myiem.org.my](http://www.myiem.org.my)

#### PERSONAL DATA PROTECTION ACT

I have read and understood IEM's Personal Data Protection Notice published on IEM's website at [www.myiem.org.my](http://www.myiem.org.my) and I agree to IEM's use and processing of my personal data