

Half Day Seminar:

“Post-Installed Technologies and Design to Malaysia Standard MS EN 1992-4:2023, MS EN 1992-1-1:2010 and TR069”



25 Apr 2024 (Thur)



IEM Penang Secretariat
1-04-02, eGate,
Lebuh Tunku Kudin 2
11700 Penang



REGISTER ONLINE @
event.iempenang.org



8.30am – 1.00pm



BEM CPD Hours: 4
Ref:IEM24/PG/093/S

IEM Member :

FOC

Non-IEM Member:

RM60

Synopsis

Designing steel-to-concrete and concrete-to-concrete connection in accordance with the latest local and international codes can be a very challenging task, given that these topics are not widely discussed in technical forums and not within the scope of any undergraduate civil engineering degree syllabus.

The first session of the seminar will be presented by Associate Prof. Dr. Daniel Looi from Sunway University, also the Chair for the MS EN 1992-4 (2023), to share how the latest Malaysian Standard can help structural engineers to achieve code-compliant post-installed fastenings design. In 2021, Department of Standards Malaysia (DSM) has formed a Working Group (NSC 04/TC 21/WG 07) with members representing government agencies, regulators, manufacturers, research agencies, certifying bodies, academia, builders and consultants to work on the adoption of EN 1992-4 Design of concrete structures - Part 4: Design of fastenings for use in concrete for Malaysia, and to produce its National Annex. The MS EN 1992-4 was successfully launched during the 11th International Conference on Advances Steel Structures (ICASS'2023) held at Kuching in Dec 2023, in the presence of the Director General of DSM. This new standard is an opportunity for structural and civil engineers to design and install anchors in such a way that our buildings and infrastructure are safer and more reliable. Historical information on the transition of ETAG to EN 1992-4 will be shared, along with technical insights of the clauses, and the use of design software will be demonstrated.

The second session of the seminar will be presented by Ir. Mun Yew Fai from Hilti Malaysia, to share on the post-installed reinforcement (PIR) design according to MS EN 1992-1-1 (2010) and EOTA Technical Reports (TR069). Concrete-to-concrete connection is very common in Malaysia construction industry. PIR is one of the technologies used to connect new reinforced concrete elements with existing members. PIR is drilled and installed into cured concrete, bonded by a qualified adhesive system in the existing concrete, and usually served as starter-bars and/or to create lap splicing with the reinforcements in new concrete structures on the other side of the interface. Mastering PIR behavior and specifying their exact performance has been crucial for ensuring building safety. In this session we will discuss the qualification, assessment, and design of PIR for Malaysia construction industry. Also, the use of design software will be demonstrated.

About the Speakers



Speaker 1:
Dr. Daniel Looi

Dr. Daniel Looi has a PhD in structural engineering, with a focus on seismic engineering from The University of Hong Kong (HKU). He is Associate Professor and program leader for civil engineering at Sunway University, Malaysia. He is a chartered professional engineer (structural) of Engineers Australia and a working group (WG) member for the Malaysian national code development in EC1-1-6 and EC8-1. He is currently chairing the WG for the Malaysian EC2-4: Design of fastenings for use in concrete. He is the 2023/2024 Civil and Structural Technical Division committee member at The Institution of Engineers Malaysia.

Dr. Daniel is passionately researching seismic engineering, concrete mechanics, modular buildings, and fastening technologies. He has led and co-authored two books on post-installed rebars and some 40 papers. He is an Associate Editor (Civil) of HKIE Transactions, Editorial Board Member of Scientific Reports (Springer Nature) and an Early Career Editorial Board Member for a new international journal - Earthquake Engineering and Resilience. He also served as a Guest Editor for Materials Today: Proceedings by Elsevier and Special Issue in Buildings by MDPI. He is one of the pioneers to develop the www.quakeadvice.org website with the aim to educate and assist structural engineers working in low-to-moderate seismicity regions in seismic analysis and design. He was the recipient of the HKIE Outstanding Paper Award for Young Researcher/Engineer in 2015. In his earlier career, Daniel worked as a structural application engineer in a multinational company, specialized in structural analysis and design computation for buildings and plants.

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Speaker 2:
Ir. Mun Yew Fai

Ir. Mun Yew Fai, graduated from University Malaya in 2008 with a B. Eng in the field of Civil Engineering. He has more than 15 years' experience in construction industry. He is a registered ASEAN Chartered Professional Engineer in the discipline of Civil Engineering, and registered Professional Engineer with BEM. He is the 2023/2024 Civil and Structural Technical Division committee member at The Institution of Engineers Malaysia.

Started career as structural engineer, he involved in the planning, detailed design and execution of mixed-use development, residential and commercial projects under consultant firm T. Y. Lin International Sdn. Bhd. He has been working in Hilti Malaysia since 2018 on engineering and technical support, especially on fastening technology, i.e. post installed anchors and rebars.

In 2022, Ir. Mun was promoted to Field Engineer Manager, leading Field Engineers to provide technical support and solutions to consultants and contractors for post installed anchor, post installed rebar and firestop system. He is also leading Testing Engineers providing anchor on-site testing services for contractors. Started from this year, he is appointed as Codes and Approval Manager to drive the code, design, and specification process in developing standards and specifications on fastening technology and passive fire protection for construction industry stakeholders.



Moderator:
Ir. Chan York Lin

Time	Description
8.30am – 9.00am	Registration
9.00am -10.30am	Session 1: Post-installed anchors/steel-to-concrete connection
10.30am -11.00am	Tea Break
11.00am – 12.40pm	Session 2: Post-installed rebars / concrete-to-concrete connection
12.40pm – 1.00pm	Q&A

This event is brought to you by:



This event is organized by Women Engineers, IEM Penang Branch
Co-organized by IEM Civil and Structural Engineering Technical Division (CSETD)