1-DAY SEMINAR
ON
"PERFORMANCE EVALUATION FOR CONCRETE TO CONCRETE CONNECTION: FROM QUALIFICATION TO DESIGN"

SPEAKERS:

Dr. Daniel LOOI Ting Wee (Swinburne University of Technology, Sarawak)
Ir. NG Beng Hooi (Hilti Malaysia)
Ir. MUN Yew Fai (Hilti Malaysia)

Date : **24th September 2019 (Tuesday)**
Venue : **Malakoff Auditorium, Wisma IEM**
Petaling Jaya, Selangor
Time : **9.00 a.m. – 5.00 p.m.**

BEM Approved CPD/PDP Hours: 6.0
(IEM19/HQ/349/S)

Closing Date: 19th September 2019
***NO* online registration will be allowed after the Closing Date**

Organised & Hosted by:
Civil and Structural Engineering Technical Division (CSETD)
In-Collaboration with HILTI Malaysia Sdn Bhd

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SYNOPSIS

Concrete-to-concrete connection is very common in Malaysia construction industry. Post-installed rebar (PIR) is one of the technology used for the concrete-to-concrete connection. PIR is drilled and installed into cured concrete, bonded by a qualified adhesive system on one side of the interface, 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. Despite the common adoption of PIR in the construction industry in Malaysia, there is no holistic design provision for PIR explicitly given in the modern international RC design codes.

Designing PIR as per cast-in rebar may result in longer anchorage length, which appears to be impractical in many cases. Recently, Eurocode 2 released its Part 4 on anchor design theory (EN1992-4, 2018) to supersede EOTA TR 023 (2006). EN1992-4 is applicable to shorter anchorage length design of PIR, depending on various failure modes (pull-out, cone and splitting failures). In recent years, a few latest qualification documents for PIR were published, e.g. EOTA EAD 330087 (2018), AC 308 (2016) and seismic assessment by cyclic test as per EOTA EAD 331522 (endorsed draft 2018).

Thus, this seminar is to provide an introduction and some insights into the state-of-the-art qualification and design of PIR including long term behavior, seismic and fire, to promote appropriate and technically-sound use of qualified PIR technology in Malaysia as per international practice.

SPEAKERS

Dr. Daniel LOOI Ting Wee is a Lecturer at Swinburne University of Technology (Sarawak campus), Malaysia. He specialises in the field of earthquake engineering, with particular interest in reinforced concrete. He is a key contributor to the development of the National Annex to Eurocode 8 on the seismic design of building structures for Malaysia. His research in concrete structures was recognised by the HKIE Outstanding Paper Award for Young Researcher/Engineer (2015).

He has been researching in the design methods for post-installed reinforcement when he was a Post-doctoral Fellow at The University of Hong Kong. He authored a design guidebook on post-installed reinforcement for Hong Kong engineers, expected to be published by end of 2019.

He is a frequent speaker and co-speaker in IEM seminars, authored and co-authored engineering research articles in IEM Jurutera Bulletin and international journal since

2011. Daniel worked as a structural application engineer in a multi-national company, specialised in structural analysis and design computation for buildings and plant. He was trained by the late Ir. MC Hee in his early career as a structural engineer. He is an alumnus of the Civil Engineering Department, University of Hong Kong (PhD in 2017) and University of Malaya (B.Eng in 2006).

Ir. NG Beng Hooi, graduated from Universiti Technologi Malaysia, Johor in 2005 with a B.Eng in Civil Engineering. He worked in consultants and suppliers for more than 14 years. He has been working in Hilti Malaysia since 2015 and has undergone basic and advanced training by Hilti in post-installed anchor and rebar design concepts.

Currently he is working as Head of Engineering in Hilti Malaysia, leading engineering team in providing post installed anchor, post installed rebar and firestop (Fastening and Protection) for Structure, M&E and Façade applications.

Ir. MUN Yew Fai, graduated from University of Malaya in 2008 with a B.Eng in the field of Civil Engineering. He worked in a C & S consultant firm for more than 9 years and involved in various residential and commercial projects. He has been working in Hilti Malaysia since August 2018 and has undergone basic and advanced training by Hilti in post-installed anchor and rebar design concepts. Currently he is working as Engineer in Hilti Malaysia, providing technical supports and solutions to consultants and contractors for post-installed anchor, post-installed rebar & firestop system.

PROGRAMME

TIME	PROGRAMME	Presented By
0830 – 0900	***Registration of Participants*** *Welcome Refreshment*	
0900 – 0915	Welcoming Remarks by Chairman, Civil and Structural Engineering Technical Division (CSETD), Ir. Chong Chee Meng	
0915 – 1015	**Session 1:** Overview of the Post-installed Rebar Technology in Malaysia	Ir. Ng BH
1015 – 1030	Q&A Session 1	
1030 – 1100	*Morning Tea Break*	
1100 – 1200	**Session 2:** Qualification of the Post-installed Rebar System	Ir. Ng BH
1200 – 1215	Q&A Session 2	
1215 – 1315	*Break for Lunch*	
1315 – 1415	**Session 3:** Design Methods: Rebar End Anchorage Theory Or Bonded Anchor Theory	Dr. Daniel Looi
1415 – 1430	Q&A Session 3	
1430 – 1530	**Session 4:** Design Recommendations: Strut-And-Tie Method And Simplified Design To Bonded Anchor Theory	Dr. Daniel Looi
1530 – 1545	Q&A Session 4	
1545 – 1615	*Afternoon Tea Break*	
1615 – 1645	**Session 5:** Demonstration of Design Software	Ir. Mun YF
1645 – 1700	Q&A Session 5	
1700	**End of Seminar**	

*** IEM reserves the right to postpone, reschedule, allocate or cancel the course.**

REGISTRATION FORMS

1-DAY SEMINAR ON
"PERFORMANCE EVALUATION FOR CONCRETE TO CONCRETE CONNECTION: FROM QUALIFICATION TO DESIGN"
24TH SEPTEMBER 2019
Fax: 03 – 7957 7678 Email: shahrul@iem.org.my

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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.

For further details, kindly contact:
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