

HALF-DAY SEMINAR ON “ADVANCEMENTS IN POST-INSTALLED REINFORCEMENTS”

SPEAKERS:

Dr. Giovacchino GENESIO (Code and Approval Engineer for Hilti)

Dr. Daniel LOOI (Swinburne University of Technology, Sarawak)

Dr. Ray SU (University of Hong Kong) &

Prof. Emad GAD (Swinburne University of Technology, Melbourne Australia)

Date : 28TH JULY 2022 (Thursday)
Venue – Physical : Sunway University, Level 1, JC2 (limited to 100 pax)
Digital : Webinar
Time : 2.00 p.m. – 6.00 p.m.

BEM APPROVED CPD/PDP HOURS : 4 (IEM22/HQ/198/S(H))

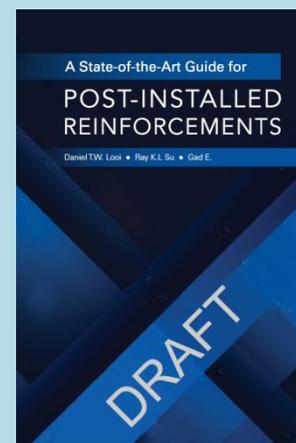
The 1ST 50 Paid **Physical Participants** Shall Receive a
FREE

**Guidebook “A State-of-the-Art Guide for Post-Installed Reinforcement”
by Sunway University Press 2022.**

Closing Date: 21ST JULY 2022

NQ registration will be allowed after the Closing Date

Organized by:
Civil and Structural Engineering Technical Division (CSETD), IEM
Swinburne University of Technology, Sarawak Campus, Malaysia,
Sunway University Press &
HILTI (Malaysia) Sdn Bhd



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.

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SYNOPSIS

Post-installed reinforcement (PIR) uses adhesive or cementitious grout to bond the reinforcements and concrete together. PIR is commonly used in modern construction procedures, being new structures or for rehabilitation and strengthening of existing structures. This half-day hybrid webinar aims at introducing good practices in the installation and design of PIR, locally for Malaysian practices and also recent advancements as per the international experiences in Germany, Hong Kong and Australia. A guidebook "A State-of-the-Art Guide for Post-installed Reinforcement" authored by Looi, Su and Gad, has been published to assist the civil engineering communities in Malaysia (and other countries using the European Standards), i.e., structural designers, contractors and installers. Some of the highlights of the Guide are as follows:

- 1) Fundamentals of qualification, design, installation and quality control of post-installed reinforcement are introduced.
- 2) Six proposals are recommended to design concrete-to-concrete connections. State-of-the-art technologies, i.e., the design of starter bars with improved bond-splitting behaviour as per TR 069 (2019) and shear friction interfaces as per TR 066 (2021), are included.
- 3) Five unique and comprehensive post-installed reinforcement design examples are included to guide readers in following the design steps according to the proposals.

SPEAKERS



Dr Giovacchino GENESIO graduated in structural engineering at the University of Florence (Italy) and obtained his PhD at the University of Stuttgart (Germany) on seismic assessment and retrofitting of reinforced concrete structures. He worked as a consultant for 5 years dealing with qualification, design, training and quality inspection of fastening systems. He is currently Technical Product Manager for Hilti. His field of interest includes concrete to concrete connections, seismic retrofitting and fastening technology. He is author or co-author of several publications on these topics.



Dr Daniel LOOI is a senior lecturer and discipline leader for the civil engineering programme at Swinburne University of Technology, Sarawak campus, 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 obtained his bachelor's degree in civil engineering from The University of Malaya and his PhD in structural engineering from The University of Hong Kong (HKU). Daniel has published research works in seismic engineering, concrete mechanics, modular buildings, and fastening technologies. He is 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, specialised in structural analysis and design computation for buildings and plants.



Dr Ray SU is associate professor of structural engineering at the University of Hong Kong. His current research interests lie in the development of new theories suitable for seismic assessment and design of concrete and masonry structures, strengthening concrete members using external steel plates and durability of concrete structures. Since 2000, he has secured 7 research grants on fracture mechanics, seismic behaviour and strengthening of concrete structures from the HK Research Grants Council. He has published more than 170 SCI cited journal papers and 100 conference papers. His research articles have been independently cited over 3300 times and have achieved an h-index of 29 (Google Scholar 7/2021). In 2016, he was named as a top 1% scholar according to Essential Science Indicators. In 2020, he was listed in Top 2% Scientists in the World for Career-long Impact in Civil Engineering according to Science-wide Author Databases of Standardized Citation Indicators. He is an Associate Editor for ICE Proceedings Structures and Buildings, and member of Editorial Board of Scientific Reports, Sustainability, Structural Engineering and Mechanics and Advances in Concrete Construction. He is a fellow member of The Institution of Structural Engineers and The Hong Kong Institution of Engineers.



Prof Emad GAD is the Dean of Engineering, School of Engineering within the Faculty of Science, Engineering and Technology. Prior to this appointment he was the Chair of the Department of Civil and Construction Engineering at Swinburne University of Technology. Earlier he was an Associate Professor at Melbourne University and Research Scientist at CSIRO. Emad is a civil engineer with extensive experience in structural dynamics, residential construction, structural connections, experimental techniques and finite element modelling. His applied research has contributed to the development of several standards and codes of practice. In addition to his teaching and research contributions, he has completed numerous consulting contracts for local and multinational clients. He is Chair of the Board of the Australian Engineered Fasteners and Anchors Council (AEFAC), Co-Editor of the Australian Journal of Structural Engineering, appointment member of the Victorian Building Practitioners Board (BPC), Director on the Board of the Australian Steel Institute (ASI) and Fellow of Engineers Australia.

PROGRAMME

Time	Topic	Speakers
14:00 – 14:05	<i>Introduction to the use of webinar tools</i>	
14:05 – 14:10	Opening Address – Moderator & Chaired by Ir. Ng Beng Hooi , IEM Civil and Structural Technical Division	
14:10 – 14:40	Post-installed reinforcing bar technology – qualification & design: the European experience	Dr. Giovachinno GENESIO <i>HILTI (Germany)</i>
14:40 – 15:00	<i>Demonstration for the Installation of PIR</i>	
15:00 – 15:30	The design philosophy for PIR for Malaysia practice	Dr. Daniel LOOI <i>Swinburne University of Technology, Sarawak, Malaysia</i>
15:30 – 16:00	<i>Book Launch “A State-of-the-Art Guide for Post-installed Reinforcement”</i> <i>Tea Break (15 minutes)</i>	
16:00 – 16:30	Failure modes and design models for moment connections with PIR	Associate Professor Dr. Ray SU <i>The University of Hong Kong, Hong Kong, SAR, China</i>
16:30 – 17:00	Australian practice and new PIR design provision in AS5216	Professor Emad GAD <i>Swinburne University of Technology, Melbourne, Australia</i>
17:00 – 17:30	Q&A and Closing	

(This programme might be subject to minor modifications without further notice.)

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INFORMATION OF THE VENUE



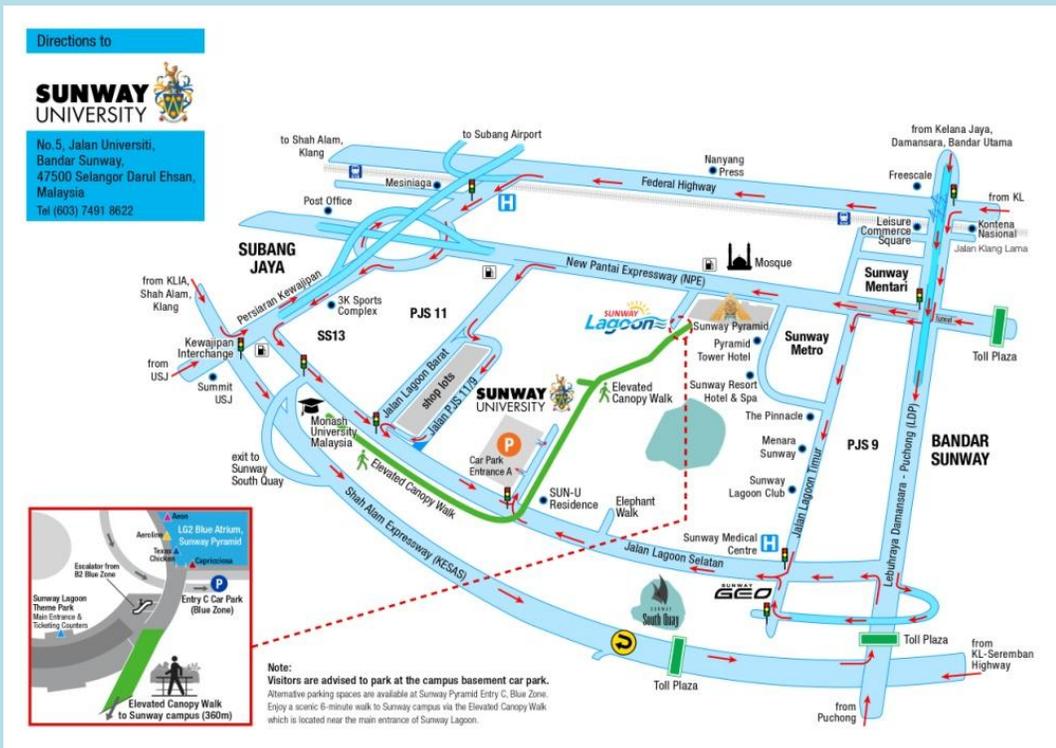
Auditorium Back Angle



Auditorium Front Angle



Registration Area



Sunway University Map