

1-DAY SPECIAL SEMINAR ON "STRUCTURAL & MATERIALS ENGINEERING FOR A SUSTAINABLE BUILT ENVIRONMENT"



18th July 2025 (Friday)
9.00am - 5.00pm



Lecture Theatre 1, Level 1
Sunway College Block
Sunway University Campus

BEM APPROVED CPD HOURS : 7
REF NO. : IEM25/HQ/288/C

Limited to 100 seats only !

Join us for a power-packed one-day seminar on "Structural & Materials Engineering for a Sustainable Built Environment" – where innovation meets impact! Discover how cutting-edge research, real-world case studies, and global best practices are shaping the future of sustainable construction. From seismic resilience, decarbonisation using steel structure and sustainable technology to ultra-high-performance concrete, this seminar brings together top experts from Malaysia, Australia, the UK, and Hong Kong, China. Whether you're an engineer, academic, policymaker, or industry professional, this is your chance to gain fresh insights, network with thought leaders, and be part of the movement toward a greener, safer built environment. Don't miss it!



www.myiem.org.my



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Time	Agenda
8.15 am – 8.45 am	Registration
8.45 am – 8.55 am	Opening – ESG agenda by IEM President, Prof Ir Dr Jeffrey Chiang
8.55 am – 9.10 am	Welcoming address and UN SDG at Sunway – Example 1 by Dean, Prof. Denny Ng (Sunway University)
Theme 1 – Optimisation to balance risks with costs for sustainability	
9.10 am – 9.40 am	Structural design for impact when trending towards heavier vehicles on the highway by Prof. Nelson Lam (University of Melbourne, Australia)
9.40 am – 10.10 am	Safe Enough? – Case Study of a Region of Lower Seismicity by Prof. Hing-Ho Tsang (University of Dundee, UK)
10.10 am – 10.40 am	Theory and practice of Decarbonising: Second-order Direct analysis in steel structures Prof. SL Chan (South China University of Technology, China / NIDA)
10.40 am – 11.00 am	Morning break
Theme 2 – Materials and technology for sustainability	
11.00 am – 11.15 am	Sustainability in fastening technology – Example 2 by Hilti*
11.15 am – 11.45 am	UHPC material specification in Malaysia by Assoc. Prof. Dr. Sudharshan Raman (Monash University Malaysia)
11.45 am – 12.15 pm	Case studies in sustainability performance of UHPC bridges by Adj. Prof. Ir. Dr. Voo Yen Lei (Dura technology Sdn Bhd)
12.15 pm – 2.30 pm	Lunch
Theme 3 – Innovative engineering practice for sustainability	
2.30 pm – 2.45 pm	Sustainability in innovative concrete deck system – Example 3 - SIS Deck *
2.45 pm – 3.15 pm	Supplementary Cementitious Materials for Sustainable Concretes Prof. Ir. Dr. Mo Kim Hung (Sunway University)
3.15 pm – 3.30 pm	Afternoon break

Theme 4 – Resilience to infrequent earthquake events for sustainability

3.30 pm – 4.00 pm	Issues with the current Malaysian National Annex to Eurocode 8 by Assoc. Prof. Dr. Daniel Looi (Sunway University)
4.00 pm – 4.30 pm	Codification in a region of low-moderate seismicity: New developments in Australia by Prof. Nelson Lam (University of Melbourne, Australia)
4.30 pm – 5.00 pm	Key Developments for the Eurocode 8 Second Generation by Ziggy Lubkowski (Arup, London, UK)
5.00 pm – 5.30 pm	Closing by IEM CSETD

* Forward-thinking industry and university sponsors championing sustainability.

Registration Fees (to include 8%SST)	ONLINE FEES (RM)	NORMAL FEES (RM)
STUDENT MEMBER	100.00	150.00
GRADUATE MEMBER	200.00	300.00
CORPORATE MEMBER	400.00	500.00
NON MEMBER	800.00	900.00

Speakers Line Up !



Prof. Nelson Lam
University of
Melbourne, Australia

Nelson Lam is Professor and Head of Structures and Buildings, Infrastructure Engineering at the University of Melbourne. He has 43 years of experience in structural engineering with the past 36 years at the University of Melbourne researching into earthquake engineering and impact engineering. He is member of the structural college board of Engineers Australia, and chief editor of the Australian Journal of Structural Engineering. On code writing, he has been engaged in revising the Australian Standard for seismic actions and co-authoring the standards commentary. He was also engaged in drafting of the Malaysian National Annex to Eurocode 8 and the associated continuous professional development work since 2009. The latest award that he received was the Charles Bubb award which was given out by the Australian Earthquake Engineering Society in recognition of his contributions to earthquake engineering. The scope of his research has been extended in recent years to Impact Engineering. He published an authored textbook titled: Collision Actions on Structures with CRC Press of Taylor & Francis in 2022. His early career was with Scott Wilson International Consulting Engineers as a structural engineer in most parts of the 1980's. His tertiary education was at The University of Melbourne, Imperial College London and University of Leeds.



Prof. Hing-Ho Tsang
University of Dundee, UK

Hing-Ho Tsang is the Chair in Civil and Structural Engineering at the University of Dundee, with over 10 years of academic experience each in Australia and Hong Kong. His research addresses multiple UN SDGs, with a focus on resilient infrastructure and cities, the circular economy, reducing greenhouse gas emissions, and alleviating poverty and inequality. With 200+ publications in international journals and conference proceedings, Hing-Ho is ranked among the World's Top 1% of Scientists for Career-long Impact in Civil Engineering (Elsevier, Stanford University). His achievements have been recognised through numerous international awards, university prizes, and prestigious fellowships. As a Chartered Professional Engineer (CPEng), he serves in advisory roles to governments, industries, and professional organisations, contributing to the development of building codes and design guidelines in various countries. He is also the Australian National Delegate to the International Association for Earthquake Engineering (IAEE) and chairs the Global Network for Geotechnical Seismic Isolation.



Prof. SL Chan
South China University of
Technology, Guangzhou,
China

Professor S.L. Chan was the Chair Professor in Computational Structural Engineering at the Hong Kong Polytechnic University until retirement in 2022, then took the position as Director of NIDA Technology Limited in Science Park in Hong Kong and joined The South China University of Technology in Guangzhou in 2024 as a Professor to continue his research in structural stability, advanced design of steel, composite and concrete structures, nonlinear finite element analysis, glass and slender skeletal structures, etc. He was the first principal consultant of the Code of Practice for Structural Use of Steel versions 2005 and 2011 published by the Buildings Department Hong Kong SAR. In 2016, Professor Chan, with practicing engineers and his PhD students, are the recipients of awards independently by Geotechnical and Structural Divisions of HKIE for their research in nonlinear analysis and he has received numerous research and consultancy awards from his university.



Prof. Ir. Mo Kim Hung
Sunway University,
Malaysia

Ir. Dr. Mo Kim Hung is presently a Professor in the School of Engineering at Sunway University. Prior to that, he was a Senior Lecturer and then Associate Professor at Universiti Malaya. He has a PhD in the field of structural engineering and materials from Universiti Malaya and is a Professional Engineer registered with the Board of Engineers Malaysia, and Chartered Engineer with the Engineering Council United Kingdom. Prof. Mo has over 10 years of research experience, and his primary research interest is in concrete materials technology. He has researched extensively on developing green and low carbon cement and concrete using local recycled by-products. More recently, his research has spanned into CO₂ utilization in producing construction materials. He has led and completed multiple research and industrial projects related to concrete materials, totalling more than RM 1.0 million, and authored more than 100 publications.



**Assoc. Prof. Dr
Sudharshan Raman**
Monash University
Malaysia

Dr. Sudharshan N. Raman is an Associate Professor in the Department of Civil Engineering, in the School of Engineering, Monash University Malaysia. The areas of his research interest(s) are: Structural resilience; Concrete engineering and technology; Sustainable infrastructure; and Structural repair/rehabilitation. Dr. Raman completed his PhD at The University of Melbourne, Australia, with a focus in structural engineering and infrastructure protective technologies. Dr. Raman was the President of the Malaysian Chapter of the American Concrete Institute (Malaysia Chapter – ACI) for the 2018-2020 Session. He is a Fellow of the Chartered Association of Building Engineers (CABE), UK; a Member of the American Society of Civil Engineers (ASCE); a Member of American Concrete Institute (ACI); a Senior Member of RILEM; and a Committee Member of the Civil & Structural Engineering Technical Division of The Institution of Engineers, Malaysia (IEM).



**Adjunct Prof. Ir. Dr
Voo Yen Lei**

Dura Technology
Sdn Bhd
Monash University
Malaysia

Swinburne University of
Technology (Sarawak)

Voo Yen Lei, the co-founder, Executive Director and CEO of Dura Technology S/B. He completed his PhD in Civil Engineering in year 2004 from the University of New South Wales (Australia). His interest and knowledge in ultra-high performance fiber reinforced concrete (UHPFRC) and his passion to create a more sustainable and environmental-friendly development. To-date Dura Company has supplied or constructed over 300 UHPFRC bridges in Malaysia, China and India. Dr Voo is also an Adjunct Professor with Swinburne University of Technology (Sarawak) and Monash University Malaysia. He also the three-times winner in the 2016, 2022 and 2024 PCI Design Award: Best International Transportation Structure from the USA Precast/Prestressed Concrete Institution and the ACI 2024 Excellence in Concrete Construction Awards.



**Assoc. Prof.
Dr Daniel Looi**
Sunway University

Daniel Looi is an Associate Professor and structural engineer with experience in Malaysia and Hong Kong. He heads the School of Engineering and leads the inaugural civil engineering undergraduate programme at Sunway University. Daniel holds a bachelor's degree in Civil Engineering from the University of Malaya and a PhD in Structural Engineering from the University of Hong Kong. He is a Chartered Professional Engineer (Structural) with Engineers Australia. Daniel contributed to the development of Malaysia's national codes for EC8-1 (Seismic Actions), EC1-1-6 (Execution Actions), and chaired the Working Group for EC2-4 (Concrete Fastenings). He is also a Malaysian representative on ISO/TC 71/SC 9 for steel-concrete composite structures. His editorial roles include Associate Editor for HKIE Transactions, Academic Board Member for Shock and Vibration (Wiley), and Editorial Board Member for Scientific Reports (Springer Nature) and Earthquake Engineering and Resilience (Wiley). More on his seismic research is available at www.quakeadvice.org.



Mr Ziggy Lubkowski
Arup, London, UK

Ziggy is an Associate Director at Arup and is an internationally recognised seismic expert. In 2019 he was appointed a Visiting Professor in Geotechnical Earthquake Engineering at UCL by the Royal Academy of Engineering. In 2009, Ziggy was awarded the Shamsheer Prakash prize for Excellence in Practice in Geotechnical Earthquake Engineering. He has over 35 years specific experience of civil, geotechnical and earthquake engineering. He has carried out seismic design, analysis and assessment for a range of structures in the energy, infrastructure, manufacturing, and humanitarian sectors.

Through collaboration with UCL and Bristol University Ziggy has contributed to various research projects. He has participated post-earthquake field missions to USA, Türkiye, Indonesia and Chile. He was Chair of both EEFIT and SECED, he is a National Delegate to the IAEE and is deputy chair of the BSI 525/8 committee overseeing Eurocode 8 implementation in the UK.

Registration Form

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ENGINEERING FOR A SUSTAINABLE BUILT ENVIRONMENT”
18TH JULY 2025 (FRIDAY) EMAIL : ROSELEIN@IEM.ORG.MY**

Ref	Name (s)	IEM Membership No	Fees
SUB TOTAL			
SST 8%			
TOTAL PAYABLE			

FULL PAYMENT must be settled before commencement of the seminar, otherwise participants will not be allowed to enter the hall. If a place is reserved and the intended participant fails to attend the course, the fee is to be settled in full. If the participant failed to attend the course, the fee paid is non refundable. The Registration Fee includes lecture notes, refreshment and lunch (whichever available).

For **ONLINE REGISTRATIONS**, please note that payment MUST be made BEFORE the closing date. If payment is not received within the stipulated time, the registration fee will be reverted to the normal registration fee.

Contact Person: _____ Designation: _____

Name of Organization : _____

Address : _____

Telephone No. : _____ (O) Handphone: _____ (HP)

Email: _____

Signature & Stamp

Date

Terms & Conditions:

- For ONLINE REGISTRATIONS, only ONLINE PAYMENT is applicable [via RHB and Maybank2u – Personal Saving & Personal Current ; Credit Card – Visa/Master.
- Payment via CASH / CHEQUE / BANK-IN TRANSMISSION / BANK DRAFT / MONEY ORDER / POSTAL ORDER / LO / WALK-IN will be considered as NORMAL REGISTRATION
- FULL PAYMENT must be settled before commencement of the course, otherwise participants will not be allowed to enter the hall. If a place is reserved and the intended participants fail to attend the course, the fee is to be settled in full. If the participant failed to attend the course, the fee paid is non refundable. Registration fee includes lecture notes, refreshment.
- 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 to avoid disappointment.

Sponsorship Package						
TYPE OF EVENT SPONSORSHIP		Amount (RM)	Guest Seat	Acknowledgement in the Event Booklet	Top Management for Event Opening Ceremony	Please tick "✓"
1	15-min Talk on "Sustainability"	7000	3	✓	1	

TERMS & CONDITIONS

By signing the contract of sponsorship, the Sponsor is deemed to have agreed / given permission to the following:

- Logo submission for the purpose of marketing and advertising of the conference via digital platform.
- The Organiser reserves the right to place the logo in any of the marketing collaterals across various platforms (print & digital).
- The Sponsor/s will need to submit the required logo, artwork and full payment for any marketing collaterals usage not later than 10th July 2025, in which failure to do so; all sponsorship benefits criteria, logo and advertisement will not be placed.
- All sponsorship contributions are entitled to tax exemption under section 44(6) Income Tax 1967 □ The Organiser reserves the right to change the date and/or venue or to postpone the convention & exhibition due to force majeure at its sole discretion.

We wish to inform that we would like to sponsor the above-said event as ticked in the box and enclose herewith Banker's Cheque / Local Cheque No.: _____ issued to '**The Institution of Engineers, Malaysia**' for the sum of Ringgit Malaysia _____.

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Course venue location

