

1 Day Seminar on Sustainable Construction: Tall Buildings, High Performance Concrete and Sustainable Future Materials

Organised by:
Civil & Structural Engineering Technical Division



Event Details

LIMITED

70 pax only



Date : 21st May 2026

Time : 9:00am - 5:30pm



Venue :
CDL Academy
Wisma YTL Cement
No. 2 Jalan Kilang 51/206
46050 Petaling Jaya
Selangor Darul Ehsan



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Registration Fees (inclusive 8% SST)	Online Fees (RM)	Normal Fees (RM)
Student/Graduate & Corporate Member	50.00	60.00
Non-Member	100.00	120.00

CPD Hours: 7 hours

CPD Ref. No.: Applying

Programme

Time	Activity
8:15am – 9:00am	Registration and Morning Coffee
9:00am – 9:05am	Welcome by Ms. Wong Ai Ming, Committee of CSETD, IEM
9:05am – 9:10am	Opening Note by Ir. Ng Beng Hooi, Chairman of CSETD, IEM
9:10am – 9:20am	Welcome speech by Ir. Soo Thong Phor, Technical Director of CDL Sdn. Bhd.
9:20am – 9:25am	Video by YTL Cement
9:25am – 10:25am	Session 1 (Part 1) - Paradigm Shift in Tall Building Typologies Past, Present, and Future Technologies' Impact on the New Generation of Tall Building Systems by Mr. Ahmad Abdulrazaq, Founder & Managing Director / Partner, Rise Global LLC
10:25am – 10:35am	Morning Coffee Break
10:35am – 11:35am	Session 1 (Part 2) - Paradigm Shift in Tall Building Typologies Past, Present, and Future Technologies' Impact on the New Generation of Tall Building Systems by Mr. Ahmad Abdulrazaq, Founder & Managing Director / Partner, Rise Global LLC
11:35am – 12:05pm	Q&A Session for Session 1
12:05pm – 12:15pm	Presentation of Token of Appreciation and Group Photo
12:15pm – 1:15pm	Lunch Break
1:15pm – 2:15pm	Session 2 - Modern High Strength Concrete: New Challenges, New Solutions, New Expectations by Ts. Nurshuhada Binti Che Husain, Senior Manager of CDL Sdn. Bhd.
2:15pm – 3:15pm	Session 3 - Carbonate-Bonded Materials as Sustainable Materials for the Future by Prof. Ir. Dr. Mo Kim Hung, Professor of Engineering and Technology Faculty, Sunway University
3:15pm – 3:25pm	Afternoon Coffee Break
3:25pm – 4:25pm	Session 4 - Going Up Sustainability: High-Performance Solutions with Precast Concrete by Mr. Lee Mun Sam, CEO of Eastern Pretech Solutions Sdn. Bhd.
4:25pm – 4:55pm	Q&A Session for Session 2, 3 and 4
4:55pm – 5:00pm	Closing by Ms. Ong Ping Ping, Director of Communications, YTL Cement
5:00pm	End of Session

Speaker Lineup



Ahmad Abdelrazaq, B.S., M.S., NAE
Founder & Managing Director / Partner, Rise Global LLC

Ahmad Abdelrazaq is a globally recognised authority in the engineering and delivery of supertall and complex buildings, with over 40 years of expertise in structural engineering, constructability, and large-scale project execution. A graduate of the University of Texas at Austin (B.S., M.S. in Civil Engineering), he was elected to the U.S. National Academy of Engineering in 2022. He is Founder and Managing Director/Partner of Rise Global LLC, specialising in high-value engineering and management services. Previously, he served as Executive Vice President at Samsung C&T, Korea, and Associate Partner at Skidmore, Owings & Merrill (SOM), Chicago. Since 2005, he has lectured at Seoul National University and earlier at Illinois Institute of Technology. His portfolio includes iconic projects such as Burj Khalifa, Merdeka 118, Lakhta Center, Jeddah Tower, and Jin Mao Tower. He pioneered Structural Health Monitoring Programs, setting global benchmarks for real-time performance monitoring of supertall buildings.

Ts. Nursyuhada Binti Che Husain
Senior Manager - Technical, CDL Sdn. Bhd.

Ts. Nursyuhada graduated with Bachelor of Chemical & Bioprocess Engineering, First Class Honour, from Universiti Teknologi MARA. She is a Senior Manager in the QAQC Department with over 12 years of experience in the ready-mixed concrete industry and specialises in designing tailored concrete solutions that meet stringent customer and consultant requirements while ensuring sustainability, reliability, and cost efficiency. She leads the R&D team in optimising concrete mix designs through in-depth understanding of raw material performance, including OPC, PFA, GGBS, silica fume, eco-sand, and chemical admixtures. She has successfully led the certification of over 40 batching plants under CIDB PPS and serves as an internal ISO 9001:2015 trainer. She is also an accredited HRDF trainer.



Prof. Ir. Dr. Mo Kim Hung
Professor, Faculty of Engineering and Technology, Sunway University

Ir. Dr. Mo Kim Hung is a Professor in the Faculty of Engineering and Technology at Sunway University, specialising in structural engineering, materials, and sustainable construction technologies. He obtained his PhD in Structural Engineering and Materials from Universiti Malaya in 2015 and brings over a decade of research experience in sustainable concrete and advanced construction materials. His current research emphasises CO₂ utilisation and carbonation technologies for developing next-generation, low-carbon building materials. Prof. Mo has led research projects exceeding RM1.0 million, focusing on innovative and environmentally responsible construction solutions. He has authored more than 150 publications in high-impact international journals and holds patents related to eco-friendly bricks, blocks, and lightweight aggregates. Professionally, he is a registered Professional Engineer with the Board of Engineers Malaysia (BEM), a Chartered Engineer with the Engineering Council UK, a Chartered Building Engineer (CABE), and a Professional Technologist (MBOT). His work bridges academic excellence and industrial application, advancing sustainable construction practices.

Lee Mun Sam
Chief Executive Officer, Eastern Pretech Solutions Sdn. Bhd.

Mr. Lee Mun Sam holds a Bachelor's Degree in Civil Engineering from Universiti Teknologi Malaysia and an MBA from the Open University Malaysia. With over 20 years of experience in civil and structural engineering, he has built a distinguished career across multiple leadership roles. At Eastern Pretech, he has served as Design Engineer, Head of Projects, Head of IT, and currently as CEO of Eastern Pretech Solutions Sdn. Bhd. He also held the position of Director of Parmarine Malaysia Sdn. Bhd., overseeing the supply of Prefabricated Bathroom Units (PBU) across Malaysia, Singapore, and Australasia. Prior to these roles, Mr. Lee was Deputy General Director / Country Head – Vietnam, managing operations in the Oil & Gas and industrial sectors across the Indochina region. His career reflects a strong foundation in engineering excellence, project leadership, and regional business management.



Synopsis

Session 1 - Paradigm Shift in Tall Building Typologies | Past, Present, and Future Technologies' Impact on the New Generation of Tall Building Systems

The emergence of new technologies, such as UHPC, Modular and off-site construction, Structural health monitoring Programs (SHMP), IOT, 3D printing, BIM, digital transformation in construction industry, form finding and typologies, sustainability, low CO2 footprint has major impact on the development of new generation of supertall building typologies. The focus of this presentation will provide an insight on the impact of using these technologies on the future generation and typologies of supertall and mega-tall and complex buildings systems. The presentation will include case studies illustrating the benefits of these innovative technologies in reducing resources, off-site construction, sustainability benefits, reduction in CO2, while improving the overall performance and delivery of these projects, including cost and time benefits.

Session 2 - Modern High Strength Concrete: New Challenges, New Solutions, New Expectations

High Strength Concrete (HSC) is no longer a novelty in modern construction. Grades of 60–90 MPa and above are now commonly used in high-rise buildings, data centres, and major infrastructure projects. While achieving compressive strength is generally no longer a challenge, the expectations placed on HSC have evolved significantly. Today, the industry demands concrete that is not only strong, but also sustainable, consistent, and reliable during construction. This presentation discusses how modern construction pressures - such as accelerated construction schedules, higher pumping demands, and increased use of Supplementary Cementitious Materials (SCMs) - have reshaped the way High Strength Concrete is designed and applied. These changes introduce greater sensitivity to variation during production, handling, testing, and placement, often leading to performance issues despite achieving specified strength. The presentation concludes by outlining the new expectations for a more holistic, disciplined, and collaborative approach in delivering sustainable and high-performance High Strength Concrete in today's demanding construction environment.

Session 3 - Carbonate-Bonded Materials as Sustainable Materials for the Future

Mineral carbonation technology involves the reaction of CO2 under accelerated conditions to convert alkaline minerals into stable carbonates. It represents one of the CCUS pathways for permanent CO2 storage and has the potential to produce sustainable construction materials for the future. This talk aims to provide insights into the pathways for turning alkaline solid waste into carbonate-bonded materials through mineral carbonation. It will highlight the role of various alkaline solid waste feedstocks and key carbonation parameters in shaping material performance and CO2 uptake capacity. By exploring the benefits and challenges of the approach, the talk will offer perspectives on how mineral carbonation can contribute to developing future sustainable construction materials.

Session 4 - Going Up Sustainability: High-Performance Solutions with Precast Concrete

This technical talk explores how high-performance precast concrete systems can be applied as a structural solution for tall buildings in Malaysia. Focusing on engineering performance and constructability, the session highlights the critical role of connections, load paths, robustness and erection-stage behaviour in precast high-rise structures. Practical issues such as tolerances, temporary stability and site constraints will be discussed, together with how high-performance concrete enhances durability, dimensional control and structural efficiency. A local project case study will be presented to demonstrate how precast systems can contribute to safer construction, improved buildability and more sustainable high-rise developments.