

# HYBRID FORUM



BEM APPROVED CPD: 2 REF NO.: IEM25/HQ/299/F

# PRELUDE & PROMOTIONAL FORUM: ENGINEERING THE FUTURE TODAY



To introduce key themes and technical perspectives from ENGINEER 2025 ahead of the main event in September, this short forum will feature two impactful sessions highlighting core engineering standards and breakthrough technologies.

July 2025 (Wednesday) Malakoff Auditorium, 5.30pm to 7.30pm Ground Floor, Wisma IEM, PJ



# Moderators

Ir. Abdul Razak Yakob IEM Vice President & ACT Chairman

Ir. Alex Looi Tink Huey

ACT Deputy Chairman & Excomm Member





Ir. Lau Yee Leong, Mike
Urban Engineering Development,
Special Interest Group,
UEDSIG Chairman



Ir. Frankie Cheah Peng Leong Tunneling & Underground Space Technical Division, TUSTD Chairman

Ir. Al-Khairi Bin Mohd Daud

Ir. Al-Khairi Bin Mohd Do Building Services <sup>ng</sup> Technical Division, <sup>ace</sup> BSTD Chairman



Ir. Tony Cheng Yew Leong
Mechanical Engineering
Technical Division, METD
Deputy Chairman

, Ir. Kwok Yew Hoe, Electrical Engineering Technical Division, EETD Chairman

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l	5:30 5:40 PM	Opening Remarks by IEM President	
	5:40 – 6:00 PM	Session 1: Standards and Guidelines in Engineering	
	6:00 – 6:10 PM	Q&A Session 1	
•	6:10 – 6:30 PM	Session 2: Emerging Technology in Engineering	
	6:30 – 6:40 PM	Q&A Session 2	
	6.40 - 7.00PM	Unleashing ENGINEER programme	





## SESSION 1

## Standards and Guidelines in Engineering

Speakers: Representatives from Electrical, Mechanical, and Building Services Engineering

#### Synopsis:

an where safety, era interoperability, and sustainability are paramount, adherence to engineering standards and technical guidelines is more critical than ever. This session will explore the latest developments, challenges, and case studies in the implementation national and international standards, engineering including to related those electrical installations, HVAC systems, energy efficiency codes, and green building certifications. The speakers will also touch on the evolving role of digital tools in compliance assessment and audit processes.

#### Key Takeaways:

Overview of recent updates to engineering standards (e.g., MS, IEC, ISO).

Common gaps and compliance pitfalls in mechanical and electrical installations.

Role of standards in building sustainability and service reliability.

## SESSION 2

#### **Emerging Technology in Engineering**

Speakers: Experts in Tunnelling and Urban Engineering

#### Synopsis:

This session highlights the cutting-edge innovations transforming the engineering landscape, with a particular focus on urban development and underground infrastructure. Speakers will present breakthrough technologies such as smart tunnelling systems, Al-powered structural health monitoring, digital twins in metro projects, and climate-responsive urban design. The audience will gain insight into how these technologies are being current applied in Malaysian infrastructure projects and engineers can adapt to remain at the forefront of technological change.

#### Key Takeaways:

Innovative tools in tunnelling: automation, predictive analytics, and safety systems.

Integration of smart technologies in urban engineering and city planning.

Case examples from ongoing or completed megaprojects.



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