

Online Talk:

Smart Cities Beyond the Buzzword: How Engineers Shape Future Cities.

Synopsis

Rapid urbanisation, climate change, digital transformation, and evolving societal expectations are reshaping the future of cities worldwide. While the term “Smart City” has become increasingly popular, its implementation often remains misunderstood and overly focused on technology alone. In reality, successful smart cities require the integration of sustainable infrastructure, intelligent systems, multidisciplinary engineering collaboration, and human-centric planning.

This technical talk explores how engineers from Civil, Mechanical, and Electrical disciplines collectively contribute to the development of future-ready cities. The session will discuss key smart city components including digital infrastructure, Building Information Modelling (BIM), digital twins, Internet of Things (IoT), energy-efficient systems, resilient infrastructure, sustainable materials, and data-driven urban management.

The talk will also highlight the evolving role of engineers in the era of IR4.0 and smart urban ecosystems, including the importance of systems thinking, interdisciplinary coordination, and lifelong learning.

Participants will gain insights into emerging technologies, implementation challenges, and future opportunities in smart city development while understanding how engineering professionals can contribute meaningfully toward sustainable and intelligent urban transformation.

About the Speaker

Ir Ts Dr Salmaliza Salleh is a Senior Lecturer at Universiti Teknologi Petronas, combines extensive academic and professional expertise in civil engineering, sustainable construction, and engineering education. With 19 years of teaching experience, she has spearheaded academic initiatives, including leading EAC accreditation processes for engineering programs and curriculum development. In her industry roles, she led Malaysia's first JKR BIM-integrated project, the National Registration Record Centre, which featured innovative technologies like MyCREST, seismic design, and 70% IBS components. As a consultant, she managed impactful projects such as the Road Map Study for Selangor Rivers Conservation and structural consultancy for the Malaysia Productivity Corporation headquarters. A committed researcher and mentor, she has supervised over 30 students and published more than 15 indexed journal papers, focusing on digital construction, sustainable materials, and BIM advancements.



30 July 2026



5.00pm – 7.00pm



BEM CPD Hours: 2
Ref: IEM26/PG/272/T(w)

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IEM Member : RM 15
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Speaker:
Ir Ts Dr Salmaliza Salleh



Moderator:
Ir Dr Huzein Fahmi Bin Hawari



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