The Institution of Engineers, Malaysia

WEBINAR TALK ON

CITY-SCALE ENGINEERING INTEGRATION THROUGH CAPSTONE-TO-PRACTICE SIMULATION

ORGANISED BY: ENGINEERING EDUCATION TECHNICAL DIVISION, IEM

BEM APPROVED CPD: APPLYING REF. NO: APPLYING

1 APRIL 2026, WEDNESDAY

5.30PM - 7.30PM

ZOOM PLATFORM

SPEAKER:
Ir. Ts. Dr. SALMALIZA BINTI SALLEH

REGISTRATION

IEM STUDENT: FOC
IEM MEMBER: RM15
NON IEM MEMBER: RM70

www.myiem.org.my myiem_offcial myiem.offcial

SYNOPSIS

Today’s project challenges are less about calculation errors and more about poor coordination, fragmented decision-making, and limited systems thinking across disciplines. This session introduces a city-scale capstone simulation where multiple engineering teams collaboratively design an integrated urban development instead of standalone projects. The model reflects real-world practice by incorporating land use planning, infrastructure networks, authority submissions, sustainability considerations, and interdisciplinary coordination within a unified framework.

Through case-based sharing, participants will examine common integration failures in professional practice, such as utility clashes, design revisions due to authority feedback, competing stakeholder priorities, and sustainability trade-offs. The session connects lessons from the academic simulation to practical insights for engineers and project leaders.

It emphasizes the importance of systems thinking, communication, ethical responsibility, and leadership in delivering resilient and sustainable cities, concluding with reflections on strengthening integration skills for future smart urban development.

SPEAKER’S PROFILE

Ir. Ts. Dr. Salmaliza Binti Salleh is Programme Leader of Civil Engineering and Senior Lecturer at Universiti Teknologi PETRONAS. She holds a PhD from University of Malaya and an MSc from National University of Singapore. A Professional Engineer and ASEAN Chartered Professional Engineer, she serves as an EAC and ETAC Evaluation Panel member. With 21 years in academia, she has led accreditation and curriculum development, including securing EAC accreditation at SEGi University. Her industry experience includes leading Malaysia’s first JKR BIM project (PRPN) and major consultancy works. Her interests include sustainable materials, BIM, digital construction, and engineering education research.