

DELIVERING UNDERGROUND EXCELLENCE: INNOVATIONS AND ENGINEERING CHALLENGES IN MASS RAPID TRANSIT (MRT) PROJECTS



28 OCTOBER 2026
WEDNESDAY



10.00 AM - 12.00 NOON
(Malaysia Time - GMT+8)



ZOOM
Online Platform

SYNOPSIS

As cities continue to grow, delivering underground metro infrastructure has become increasingly critical to supporting sustainable urban mobility. However, tunnel and station construction in densely developed urban environments presents significant challenges, from complex ground conditions to constrained construction access and stakeholder requirements.

In this webinar, Ir. Kow Kah Loong, Managing Director of AECOM Malaysia, will share insights from the delivery of the underground works for the Klang Valley MRT Putrajaya Line, one of Malaysia's most significant rail infrastructure projects. Drawing on more than 25 years of experience in metro and transportation engineering, he will discuss how digital engineering, innovation, and practical problem-solving were applied to overcome complex project challenges.

The session will highlight the use of Building Information Modelling (BIM), Common Data Environments (CDE), design automation, and advanced tunnelling technologies to improve project efficiency, coordination, and delivery outcomes. It will also demonstrate how construction methodologies were strategically adapted to suit varying site constraints, enabling safe, efficient, and constructible solutions in highly congested urban environments.

Attendees will also gain insights into planning for future Transit-Oriented Developments (TODs), lessons learned from award-winning MRT projects, and how these experiences are shaping the next generation of metro infrastructure across Southeast Asia.

KEY LEARNING OUTCOMES

Participants will gain insights into:

- Leveraging BIM, CDE, and digital engineering to improve project delivery and collaboration.
- Applying automation and advanced technologies to enhance design efficiency and accuracy.
- Managing underground works in challenging karstic limestone conditions.
- Adopting site-specific construction strategies to improve constructability, safety, and project performance.
- Integrating TOD considerations into metro station planning and future urban development.
- Learning from the delivery of one of Southeast Asia's landmark MRT projects.

This webinar is designed for engineers, infrastructure professionals, project managers, government agencies, and industry stakeholders seeking practical insights into delivering complex underground transit infrastructure.



Ir. Kow Kah Loong

BEng (Civil), MBA, PEPC, MIEM, MACEM, ACPE
Managing Director, AECOM Malaysia

Professional Civil Engineer with over 25 years of experience in civil and structural engineering, with extensive expertise in the delivery of major metro and transportation infrastructure projects across Malaysia and Southeast Asia.

Has a proven track record in leading complex, large-scale developments and working collaboratively with clients and multidisciplinary teams to achieve high-quality project outcomes. Areas of expertise include underground structures, deep excavations, rail systems, and integrated transportation infrastructure.

A strong advocate of innovative project delivery, is particularly focused on advancing Digital Engineering and Building Information Modelling (BIM) to improve efficiency, coordination, and overall project performance.

Registration Fee (inclusive of 8% SST)

ACEM Member Firms	RM 35.00 per person
Others	RM 65.00 per person

(E-certificate of attendance will be issued, subject to full attendance)

For further enquiries, please contact the ACEM secretariat at 012 5290031 or e-mail vivien@acem.com.my.



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