

TECHNICAL TALK ON DESIGN OF CAVERNS IN ROCK

SPEAKERS:



Mr Jason Chin



Mr. Jack Muir



17 APRIL 2023, MONDAY



4.30 PM - 6.30 PM



**MALAKOFF AUDITORIUM,
WISMA IEM**

REGISTRATION FEES
STUDENT MEMBERS : FREE
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SYNOPSIS

The speaker will introduce the design approach of cavern in rock being adopted in Hong Kong. Cavern design in rock would begin with empirical design approach (such as NGI Q-system), followed by design check using the reinforced rock arch theory, and finally, verified using finite element method. The speaker will also present a case study from the Tseung Kwan O-Lam Tin Tunnel project where two caverns are situated closely to each other. Challenges and optimised design of this particular project will also be discussed.

SPEAKERS' PROFILE

Mr. Jason Chin joined Aurecon in 2018 and is currently an Executive Director. He obtained his B.Sc. (Civil Engineering) degree from University of Alberta and M.Eng. (Geotechnical Engineering) degree from University of Maryland, College Park. He is a registered Professional Engineer (geotechnical engineering) in the Commonwealth of Virginia in the United States since 2010 and NEC4 ECC accredited PM under the ICE. Jason has been in the tunnelling industry for over 20 years. He started his career as MEP pipe and rebar fixer and equipment operator in a highway tunnel project in Taiwan, and gradually progressed towards engineering and consultancy. He specialises in the design of tunnels such as TBM segmental lining, drill and blast as well as trenchless tunnels. He has worked on various mega projects in Hong Kong, Singapore, Taiwan, Canada, United States, and Mexico, and leads a team of 15 in the Aurecon Hong Kong office.

Mr. Jack Muir is a Tunnel Engineer with broad experience working within contractor teams both in the design and construction phase of projects. Jack has successfully contributed to completed tunnels across Asia, Australia, New Zealand, Middle East and Africa. Jack is currently the Aurecon Capability Leader for GUGE where he is responsible for developing and delivering the Ground and Underground Engineering technical skills (Geotechnical, Tunnels, Underground Structures, Pavements and Tunnel Systems) to Aurecon clients' projects throughout the world. .