



# The Institution of Engineers, Malaysia

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## TALK ON:

### INTRODUCTION TO TUNNELLING BY DRILL & BLAST

Organized by the Tunnelling & Underground Space Technical Division, IEM

BEM Approved CPD/PDP Hours: 2 Ref: IEM14/HQ/425/T

Date : 6 December 2014 (Saturday)  
Time : 9.00am – 11.00pm (Refreshment will be served at 8.30am)  
Venue : Auditorium Tan Sri Prof. Chin Fung Kee, 3<sup>rd</sup> Floor, Wisma IEM  
Speaker : Ir. Haji Look Keman Sahari

#### SYNOPSIS

The Mining Tunelling by Drill & Blast is one of the means to access to the Mineral and Metals that we use everyday in our life. The deepest mine in the world is almost 4 km deep and the workers need to commute everyday to their working site through shaft and tunnels. Recently we hear in TV and other medias about 30 over workers trapped inside working tunnel when the underground tunnel 600 metres below collapsed at Copper mine in Chile. In Civil Engineering construction, tunnels are constructed for sewage disposal, transportation such as MRT, tube in London, Tokyo, New Delhi, railway tunnels, Water diversion tunnel, road through hills and endless other project. When encountering rock, tunneling by Drill & blast using explosives is the preferred method.

The talk introduces the techniques used in Drill and Blast tunneling method, the sequence and the explosives technology currently available Malaysia the basic blast design and also the people behind it. This talk is an introduction to future courses on drill & Blast in tunneling and underground space for Civil Engineering in Malaysia with the assistant of local Explosive company

#### BIODATA OF SPEAKER



Graduated in Mining Engineering from University of Stratchclyde University in 1979 and upon returning joined The Mines Department Research Division as Research Engineer in the Mining Technology/ Geotechnical Engineering Division where he specialized in the investigation of mining slope failure, stability of wet and dry dump and application for mining near sensitive structure etc. As a government engineer he visited many underground of tunnel construction sites such Sungai Lembing underground tin mines, water deviation tunnel at Pergau Hydro electric project, and involved as the officer in charge

in the investigation on the potential effect of Karak second tunnel blasting on the failures of Genting Sempah road failure in earlt 1990's.

He had attended a Course on Open Pit and Underground Mining at Queen's University Canada and recently attended a workshop on Drill & Blast by Tunnelling organized by International Society of Explosives Engineers of which he is a member in India. He subsequently obtained M.Sc in Explosives Ordnance Engineering from Royal Military College of Science, Cranfield University, England and was involved in many Construction Blasting as evaluator and later as Consulting Engineer in Mining Quarrying and Explosives Engineering.. He has also visited the SMART tunneling project , Pahang Selangor water transfer tunnel and also current MRT project. He is also a current committee member of IEM Tunnel and underground Space Technical Division. As a Committee member of IEM Training Board he has attended many courses in Tunnelling, Geotechnical Engineering and Safety and Health as Auditor organized by IEM Technical Divisions and also Private Training Provider.

The talk will be supported by Engr Mohamad Razif bin Kemat through videos and dummies . He graduated in Mineral Resources Engineering, USM in 2006 , He is currently the Technical Service Manager from Tenaga Kimia Berhad , the largest explosives company in Malaysia He had extensive experience in providing technical advice to user of their explosives in tunneling project.He is a graduate member of IEM and also a member of International Society of Explosives Engineer.

**Ir. Andrew Yeow Pow Kwei**  
Chairman  
Tunnelling and Underground Space Technical Division, IEM

#### ANNOUNCEMENTS TO NOTE:

- Preferential admission to talk shall be accorded to IEM members (**pre-registration and online registration are NOT required**). (**telephone and/or fax reservation will NOT be entertained**)
- **Non members** may also attend the talk but will be charged a registration fee of **RM50** and an administrative fee of **RM10**.
- For affiliate members, there will be no registration fee. However, they are requested to produce their membership card as proof of membership. For the list of affiliates, please refer [www.myiem.org.my/content/memorandum\\_of\\_understanding-469.aspx](http://www.myiem.org.my/content/memorandum_of_understanding-469.aspx).
- Limited seats are available on a "first come first served" basis (maximum 110 participants).
- IEM members are required to produce your membership cards for confirmation of attendance (CPD purpose).
- Latecomers will not be allowed to enter if the lecture hall is full nor be entitled to CPD.

**IEM members who fail to produce their membership cards will be charged a fee of RM20.00.**

#### FUNDS FOR IEM BUILDING FUND (WISMA IEM)

- Kindly be informed that IEM will be charging participants **RM10** as administrative fee for talks organized by IEM.
- The fee would be used to cover overhead costs, building maintenance expenses as well as to support the purchase of the new building.
- All contributions will be deeply appreciated by IEM
- Students are however exempted. Your

#### CPD HOURS CONFIRMATION

Name: \_\_\_\_\_

Membership No: \_\_\_\_\_

Date: \_\_\_\_\_

Signature: \_\_\_\_\_