



Talk on Geotechnical Considerations for Underground Works of KVMRT Sungai Buloh - Kajang Line: 30th June 2015

Reported by Ir. Yee Yew Weng, Secretary General, MGS

Malaysian Geotechnical Society (MGS) and Geotechnical Engineering Technical Division, Institution of Engineers (GETD IEM) jointly organized a talk on “Geotechnical Considerations for Underground Works of KVMRT Sungai Buloh - Kajang Line” on 30th June 2015 at Tan Sri Prof. Chin Fung Kee Auditorium, Wisma IEM. Ir. Dr. Ooi Lean Hock was the speaker for the talk.

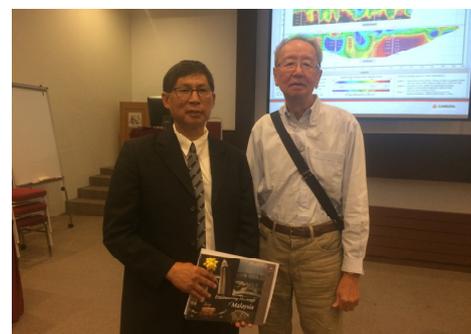
Ir. Dr. Ooi L.H. is currently seconded from Gamuda Berhad to KVMRT (T) Sdn. Bhd. as the Head of Geotechnics for the Klang Valley Mass Rapid Transit from Sungai Buloh - Kajang Line. The KVMRT Sungai Buloh - Kajang Line will be 51km long and will be served by 31 stations, providing efficient mobility to the inhabitants of the Klang Valley region.

Ir. Dr. Ooi L.H. started his presentation with the explanation of various types of soil investigation that have been conducted along the line. As the main contractor for the project, KVMRT (T) Sdn. Bhd. has conducted geophysical survey (i.e. Multichannel Analysis of Surface Waves, MASW), in addition to the conventional Standard Penetration Test (SPT). He also mentioned some of the challenging problems that they encountered during the construction in karstic formation, especially for Maluri Station and Cochrane Station. The common problems in the karstic formation is that there will be cavities found below the ground. Once cavities are detected, compaction grouting will be performed to fill up the voids.

In addition, he explained the different types of Tunnel Boring Machine (TBM) used in the project. Based on their experience, for Kenny Hill formation, the Earth Pressure Balance Machine was suitable; whereas for karstic formation, the Variable Density TBM was more efficient. Ir. Dr. Ooi L.H. stressed that tunneling works are all about risk mitigation. Due to confined working space, intervention blocks are important for servicing of TBM. Without proper grouting, overburden soil may settle during excavation due to drawdown of water table. This happened in Pasar Rakyat Station and Inai Launching Shaft. After his presentation, the floor was opened for question and answer. The talk was adjourned at 6.15pm with the momento presentation to the speaker.



Ir. Dr. Ooi L.H. showing all the MRT Stations



Momento presentation by Ir. Dr. Ting W.H.