

Talk on “Challenges and Performance of a Thirty-Seven-Metre-Deep Underground Basement Construction in Kuala Lumpur Downtown”

Organized by Tunnelling & Underground Space Technical Division, IEM

BEM Approved CPD/PDP Hours: 2 Ref No: IEM17/HQ/284/T

Date : 20 July 2017 (Thursday)
Time : 5.30pm – 7.00pm (Refreshments will be served at 5.00pm)
Venue : C&S and TUS Lecture Rooms, 2nd Floor, Wisma IEM, Petaling Jaya
Speaker : Ir. Muhammad Hafiz Bin Jalaluddin

SYNOPSIS

Probably one of the deepest underground basement ever constructed for a high-rise building in downtown Kuala Lumpur, a 37m-deep excavation was conducted for the upgrading of the MAS Building, on Jalan Sultan Ismail. The construction started with the demolition of the front podium of approximately 1,700m² in area. The semi top-down construction method with kingposts was adopted akin to a strut-slab system, in place of the conventional steel strut and walers system. This system has been proven effective in controlling the retaining wall deflections and adjacent ground deformations, while attaining a timely construction period.

The talk will outline the key construction challenges involving removal of the existing 450mm CBPs, and 1,000mm diameter building piles; installation of new CBPs ranging from 600mm to 1,350mm in diameter, of an average depth of 45m; 3,000mm diameter foundation bored piles of an average depth of 70m, and its load test performance; sequential ring slab construction and excavation in a semi top-down fashion; pre-loading against the CBP wall along St. Mary building. The problems which arose during the construction stage and the performance of the underground structure throughout construction will be discussed.

BIODATA OF SPEAKER

Ir. Muhammad Hafiz Bin Jalaluddin MIEM (2016), PE (Geotechnical) BEM (2016), started his career as a Design Engineer in 1996 in Pembinaan YCS Bhd after graduating with a Bachelor of Engineering in Civil Engineering from Universiti Pertanian Malaysia (1996) (now known as University Putra Malaysia), and was involved in the design and supervision of precast slabs and beams. He was involved in the construction of Carrefour, Wangsa Maju and Complex PKNS Bangi. He then joined Econpile (M) Sdn Bhd in 1998 and was with the company for the past 20 years. He is currently the General Manager of Econpile (M) Sdn Bhd having undertaken and completed various piling and substructures works such as Ministry of Finance building Putrajaya, the CIQ complex Johor Bahru, One Menerung condominium Bangsar, Kenanga Wholesale City Kuala Lumpur, MRT package V1 and V6, Pantai Hospital Jalan Bukit Pantai K.L., and most recently, the MAS Building on Jalan Sultan Ismail, K.L.. Apart from his extensive experience in geotechnical works, he has vast experience in the top-down construction method. His most recent experience, the MAS Building project for PNB Tower on Jalan Sultan Ismail, comprises 6 basements, and adopted the top-down construction method.

Ir. Syed Rajah Hussain Shaib Bin A.H. Mohd Haniff

Chairman

Tunnelling & Underground Space Technical Division, IEM

ADMINISTRATIVE FEE

- Kindly be informed that an administrative fee of RM15 is payable for talks organized by IEM. GST is inclusive.
- Student Members are however exempted.

ANNOUNCEMENTS TO NOTE:

- Non-member may also attend the talk but will need to pay a registration fee of RM50 and an administrative fee of RM15. GST is inclusive.
- Limited seats are available on a "first come first served" basis (maximum 100 participants). To secure your seat, kindly register online at www.myiem.org.my.

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