

# **WEBINAR TALK ON “CIRCLE LINE 6 TUNNELLING CHALLENGES”**

**Date : 07 May 2025 (Wednesday)**

**Time : 04.00 pm - 06.00 pm**

**Platform : Zoom**

## **Synopsis**

The Circle Line (CCL) comprises 33 stations, of which 30 have been completed and are in operation. The Circle Line 6 (CCL6) project will add the remaining 3 stations (i.e. Keppel, Cantonment and Prince Edward Road) and an extension of Kim Chuan Depot to the Circle Line, forming a complete loop. When CCL6 is completed in 2026 (one year delay due to the COVID-19 impact), the overall connectivity of the Mass Rapid Transit (MRT) network in Singapore will be enhanced, with commuters enjoying a direct route from areas in the Western parts of Singapore to key employment areas in the Central Business District and upcoming developments in downtown Marina Bay area.

To construct the tunnels in the dense urbanised environment, which would link the 3 new stations to the rest of the existing operational CCL, 3 Earth Pressure Balance Tunnel Boring Machines (TBMs) were used for the 4.4km of tunnelling works.

In terms of critical undercrossing of structures, one TBM had to navigate beneath residential and commercial properties as well as existing live sewer and water tunnels and also a national monument, a former Railway Station. Protection works were carried out on key heritage elements and over 600 instruments were installed to monitor the building during the tunnelling works. Regarding another undercrossing of a vehicular viaduct, the roads remained open while works are carried out to underpin the viaduct and eventually tunnel through the detached piles. This talk chronicles the tunnelling challenges faced and successfully circumvented.



## **Speaker: Mr Poh Chee Keong**

Chee Keong joined the Land Transport Authority in 2002 and currently holds the Director (Tunnelling) post in the Rail Infrastructure & Expansion Group, with a concurrent appointment as the Deputy Chief Specialist (Tunnelling).

With over 20 years of tunnel construction experience, Chee Keong has worked on major challenging projects with varied and extremely demanding ground conditions on the North East Line, Circle Line, Downtown Line, Thomson-East Coast Line rail projects and currently the Cross Island Line.

Chee Keong was seconded to support and provide expert advice to the Singapore Power PowerGrid project on the 34km Transmission Cable Tunnel Project, where he managed and supervised works from concept, design till completion. He subsequently played an instrumental role providing consultancy services to Public Utilities Board's (PUB) 50km Deep Tunnel Sewerage System (DTSS) Phase 2 project. Chee Keong is an IES Chartered Engineer (EPM) and is presently the 1st Vice President of the Tunnelling and Underground Construction Society, Singapore (TUCSS).

### **Registration Fees**

- \*Student Member : **FOC**
- \*IEM Member : **RM 15.00**
- \*Non-Member : **RM 70.00**