

# Talk on Lessons Learnt in Geotechnical Engineering from The Kaohsiung Railway Underground Project



by Ir. Liew Shaw Shong

GEOTECHNICAL ENGINEERING TECHNICAL DIVISION

IN conjunction with the Inter-institutional Tripartite Seminar 2013 – IEM, Chinese Institute of Engineers (CIE) and The Hong Kong Institution of Engineers (HKIE) – the Geotechnical Engineering Technical Division of IEM arranged for CIE delegate Dr Lee Shun-Min to give a talk at Tan Sri Prof. Chin Fung Kee Auditorium, Wisma IEM on 22 October 2012.

The talk, attended by 75 participants, was chaired by Ir. Liew Shaw Shong, the present chairman of the division. Dr Lee started the presentation with a project brief on the US\$21.3 billion Kaohsiung Railway Underground Project (KRUP) in south Taiwan as shown in Figure 1 and followed by the key areas of presentation below. His talk covered the construction of a 7.87km-long underground railway line with five stations in the western part of the KRUP.

- Slurry wall construction (Figure 2)
- Temporary railway, stations and bridge design for temporary line diversion (Figure 3)
- Construction of underground railroad crossing
- Construction through the Love River (Figure 4)
- Construction under existing viaduct structures
- Construction of underground vehicular underpass



Figure 2: The layout of KRUP and stations



Figure 2: Slurry wall construction with horizontal and vertical site constraints, and modified slurry wall equipment

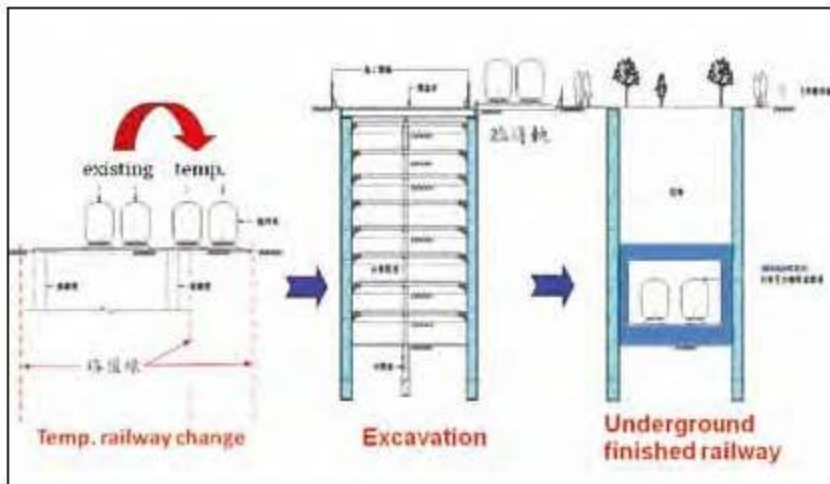


Figure 3: Construction sequence of rail line diversion and permanent underground works

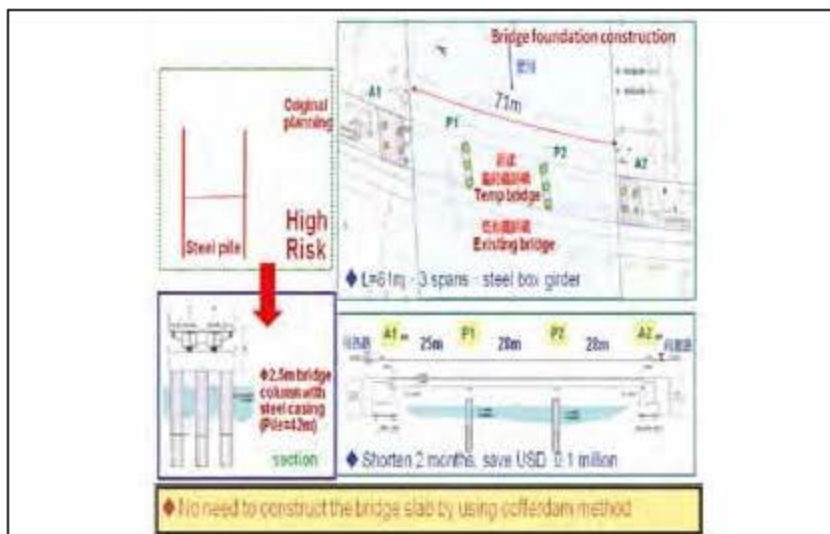


Figure 4: Proposed bridge diversion scheme crossing Love River

The Q&A session was lively, with active discussions from the floor on the subject matter and a mutual exchange of opinion. The technical talk ended at 7 p.m. with the presentation of a memento to Dr Lee Shun-Min as shown in Figure 5. ■

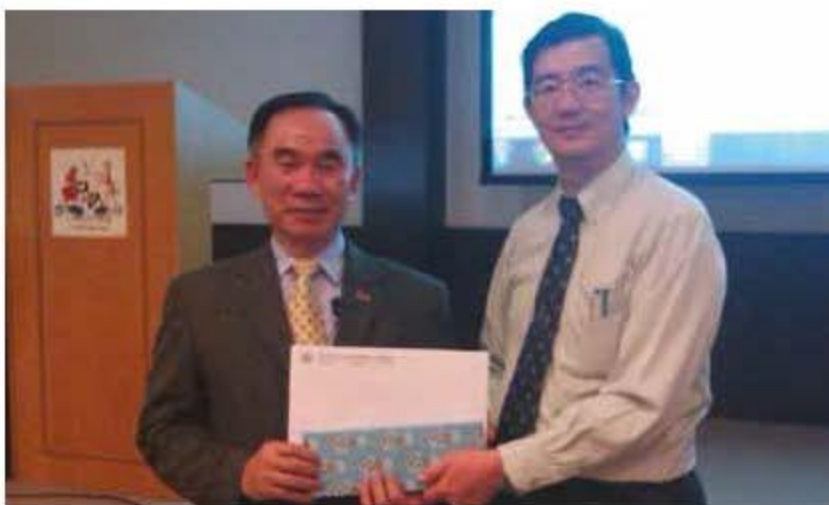


Figure 5: Presentation of memento to Dr Lee Shun-Min by Ir. Liew Shaw Shong

Ir. Liew Shaw Shong is Chairman of IEM Geotechnical Engineering Technical Division (GETD) for session 2012/2013 and Senior Director of G&P Geotechnics Sdn. Bhd.

**Note:** To read the full article, please go to [www.myiem.org.my](http://www.myiem.org.my).