



Lessons Learned from Back-Analysis

By Professor WONG Kai Sin
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SYNOPSIS

Since April 2018, a group of young engineers and an old man worked together on some back-analyses involving deep excavations in the Bukit Timah formation. This talk summarises the findings from this exercise with a focus placed on the issues below:

- Soil model: Is the Hardening Soil model better than the Mohr-Coulomb model?
- Soil Strength: How should we evaluate the drained strength parameters?
- Soil Stiffness: How should we evaluate the drained and the undrained moduli?
- Soil profile: Is the soil profile used in the analysis representative of the actual ground condition?
- Water drawdown: How does groundwater drawdown affect the analysis results?
- Ground settlement: How reliable are the computed ground settlements?
- Drainage condition: Is the undrained analysis meaningful for residual soils?

The findings from this study by no means provide comprehensive answers to the above questions. Nonetheless, they may shed some light on these issues.

PROGRAM

6:00pm – Registration

6:30pm – Seminar on “Lessons Learned from Back-Analysis” by Prof. Wong Kai Sin

7:30pm – Lo-Hei dinner

10:00pm – End

THE SPEAKER



Dr Wong graduated in 1972 with a BS degree from the University of Illinois. He received his MS and PhD degrees from the University of California at Berkeley in 1975 and 1978 respectively. He practiced geotechnical engineering in California before joining NTU in 1984. He retired from NTU in 2010 and is currently teaching at SIT as well as actively participating in consultancy works. His major areas of interest are deep excavation, building foundation, soil improvement, land reclamation, slope stability, ground settlement and soil-structure interaction problems.

***The event is for valid GeoSS members.**

****For catering purposes, please register your attendance via this link: <https://e.cma.sg/geoss22feb19>. Food served is a Chinese menu dinner. Due to size of the restaurant, maximum capacity for this event is 170 persons. Please register early! Closing date for registration is 8 February 2019.**