



GEOTECHNICAL SEMINAR

JOINTLY ORGANIZED BETWEEN
GEOTECHNICAL SOCIETY OF SINGAPORE (GEOSS)
& CENTRE FOR SOFT GROUND ENGINEERING



Cement-treated soil – Gaps in the present practice

by

Dr Saw Ay Lee

Golder Associates in Hong Kong

(PDU/STU pending approval)

Date: Friday, 09 February 2018
Time: 6:30pm Registration
7:00pm Seminar
Venue: **EA-06-02**
Faculty of Engineering
National University of Singapore

SYNOPSIS

Owing to the substantial presence of soft soil which covers about one quarter of land area in Singapore, it is often required to improve the soft soil by DCM/JGP for various construction purpose, for instance to stabilize the base of deep excavation or to eliminate future consolidation settlement for tunnel in consolidating soil. Despite the extensive use of DCM/JGP in local practice, there are still rooms for improvement both in terms of design and construction. The presentation aims to discuss the gaps relating to the current practice of ground improvement works using cement treatment method from the following perspectives: (i) The understanding in behaviour of cement-treated soil: is UCS enough? What is missing? (ii) Common numerical simulation of cement-treated soil: is composite simulation appropriate? Is Mohr Coulomb model with tension cut off good enough? (iii) QA/QC procedure: what is the sensible coring frequency and UCT sample numbers? (iv) Acceptance criteria: minima strength? Statistical method? Case histories from recent projects in Hong Kong and Singapore will be shared for discussion.

THE SPEAKER

Dr Saw Ay Lee obtained her first-class honours degree in Civil and Environmental Engineering from the University Technology of Malaysia. Following her graduation, she gained a breadth of experience in the design of excavation, slope stability and ground improvement works through different projects in Singapore. She further obtained her PhD from National University of Singapore in cement-treated soil column in 2015 then joined Golder Associates in Hong Kong. She is currently providing geotechnical expert support service especially DCM related advisory for the HK Airport Authority in HKIA 3rd Runway reclamation works. In the HKIA 3rd Runway, DCM has been adopted as the main ground improvement technique to reclaim 400 hectares of land in which can be considered as one of the largest DCM works in the world.

To Register: <http://www.cma.sg/e/geoss9feb18>

Please Note:

- From 1st Jan 2018 onwards, there will be no refreshments catered for GeoSS Evening Seminars.