IEM The Institution of Engineers, Malaysia

Organised by Geotechnical Engineering Technical Division

WEBINAR ON FULL-SCALE CONSOLIDATION TEST ON ULTRA-SOFT SOIL IMPROVED BY PVD IN MAE MOH MINE, THAILAND

16 NOVEMBER 2022

5.00PM -7.00PM

BEM Approved CPD: 2
Ref. No.:IEM22/HQ/415/T (w)

SPEAKER:

DR NGO HUY DONG

Registration Fees
Student Members : Free
IEM Members : RM 15.00
IEM Non Members : RM 70.00
Register online I www.myiem.org.my

SYNOPSIS

The effectiveness of the prefabricated vertical drains (PVDs) in the consolidation of ultra-soft soil in Mae Moh mine, Lampang, Thailand was researched via a large-scale model test. Large settlements with the delay of excess pore pressures were observed, which is a distinct behaviour of ultra-soft soil. The delay of excess pore water pressure is reduced with the increase of vertical stress. The ultra-soft soil was significantly improved by ground improvement with PVD, as evident by the significant reduction in water content and increase in undrained shear strength (su) in both laboratory and field testing. The su at various degrees of consolidation could be approximated by the vertical effective stress (σ′v) based on the SHANSEP and Asaoka's method. The outcome of this research will facilitate the geotechnical design of reclamation of ultra-soft dredged soil in Mae Moh mine and other soils with similar characteristics.

SPEAKER'S PROFILE

Dr Ngo Huy Dong received his bachelor's degree in Civil Engineering – Advanced Training Program from the University of Transport and Communication, Hanoi, Vietnam. Soon after graduating, he joined VECC Vietnam as a civil engineer, responsible for various geotechnical designs involving ground improvement and slope stability analysis. In 2020, he obtained his PhD in geotechnical engineering from Suranaree University of Technology, Thailand. His area of research includes geosynthetics testing, ground improvement, laboratory and in-situ soil testing, and finite element analysis. Currently, he is appointed as a design engineer in Tensar International Limited, involved in subgrade stabilisation and retaining wall design work.