



DEPARTMENT OF CIVIL ENGINEERING

SEMINAR

Time-dependent behavior of Marine Soils and Its Constitutive Modelling Development

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Date: December 28, 2023 (Thursday)

Time: 2:30 p.m. – 3:30 p.m.

Venue: Room 632C, 6/F Haking Wong Building, The University of Hong Kong

Abstract

Time-dependent behavior of marine soils is very important for the prediction of long-term settlement. In this presentation, the time-dependent behavior of marine soils is summarized and the mechanism of the time-dependent performance of soils is discussed from Moler dynamic to field measurement. Afterwards, the constitutive models, termed as elastic visco-plastic (EVP) model, will be categorized and presented historically, especially, the nonlinear creep behavior is introduced and quantitatively analyzed. Lastly, the new development from EVP model to EVPS model, T-EVP model will be introduced with typical cases for calibrations.

About the Speaker

Dr Weiqiang Feng is currently an Assistant Professor at the Department of Ocean Science and Engineering, Southern University of Science and Technology, Shenzhen, China. He obtained his Master degree in Geotechnical Engineering from Zhejiang University, and Ph.D. degree at the Hong Kong Polytechnic University in 2016. Afterwards, he was a Postdoc Fellow in the Department of Civil and Environmental Engineering of Hong Kong Polytechnic University. Dr Feng's research focuses on consolidation analysis of marine clay, soil constitutive modelling and simulations, physical modelling and applications of fiber optic technology. In recent years, Dr Feng has published more than twenty-five quality peer-reviewed papers in international geotechnical journals such as *Canadian Geotechnical Journal*, *Engineering Geology*, *Computers and Geotechnics*, etc.

- ALL ARE WELCOME -