NANYANG TECHNOLOGICAL UNIVERSITY SINGAPORE

CUS Seminar

Lifting Objects From The Seabed

Date: 21 November 2022 (Monday)
Time: 4.00 pm to 5.00 pm
Venue: CEE Seminar Room A, N1-B1b-06 [North Spine, Block N1, Basement 1, Section B]
Nanyang Technological University, 50 Nanyang Avenue, Singapore 639798
Organised By: Centre for Urban Solutions (CUS), School of Civil and Environmental Engineering (CEE), Nanyang Technological University, Singapore
Registration: Please click here. Registration is free.

About the Seminar

Most of us have experienced the difficulty of lifting our shoes up from muddy ground (the quintessential 'stuck in the mud'). This phenomenon, terminologically called the breakout problem, has become increasingly important in studying lifting objects off the seabed, as it is the scientific basis for a variety of offshore applications, such as (1) retrieval of oil and gas infrastructure sitting on the seabed for decommissioning, repairing or even repositioning; (2) marine salvage; and (3) securing submarine foundations against lifting away under severe storm conditions.

This seminar reviews the speaker's research work in the past couple of years in investigating the process of lifting objects off the seabed. Essentially, it will concentrate on (1) the effect of uplifting rate on the resistance capacity; (2) sustained uplifting loading for offshore foundations; (3) developing numerical structure-soil interface to facilitate uplifting modelling.

About the Speaker

Dr Yinghui TIAN is an ARC (Australian Research Council) Future Fellow, working at the Department of Infrastructure Engineering of the University of Melbourne. Prior to his appointment at Melbourne, he had a ~10 year research experience at the Centre for Offshore Foundation Systems (COFS) of the University of Western Australia.

His research background is offshore geotechnics and he is currently concentrating on doing research in offshore anchoring systems and renewable energies supported by the ARC Future Fellowship. He is the Chief Investigator (CI) of 17 projects cumulating over $10 million research funding. He has developed two suites of computer software (UWAINT and CASPA), which are licensed to leading industry companies to be used in practical offshore engineering.

He is the recipient of the Institution of Civil Engineers (ICE) David Hislop Award for the best paper on offshore engineering in 2017. He has produced a total of 168 publications (91 journal papers, 49 conference papers, 3 book chapters, 25 technical reports for industry projects, excluding 30 journal papers published in Chinese).