

OSIGp selections of OTC 2016

Thursday, 7 July 2016, Thursday – The University of Western Australia, Engineering Lecture Theatre 1

Onsite registration 5:30 PM **Networking over coffee/finger foods** 5:30 PM – 6:00 PM; **Presentations** 6.00 pm – 8:00 PM

The Offshore Site Investigation and Geotechnics (OSIG) Group is a special interest group of the Society for Underwater Technology (SUT). We promote technical advancement and knowledge sharing amongst academics and practitioners in the fields of geology, geophysics, geomatics and geotechnical engineering

Chaired by: **Fiona Chow**, Chief Geotechnical Engineer, Woodside Energy Ltd

This event is free. RSVP at <https://www.trybooking.com/LVJV>

This event features an OSIGp selection of papers by Perth-based presenters from the 2016 Offshore Technology Conference (OTC) in Houston and OTC-Asia in Kuala Lumpur



Design and Installation of the Malampaya Depletion Compression Platform

L. Lorenti, A. Grime, Arup Pty Ltd; B.A. Raine, Arup Energy

Synopsis: This presentation provides an overview of the Malampaya platform and key aspects of the geotechnical and structural design. Innovations were adopted to minimise the seabed preparation and scour protection works required offshore and to ensure the successful installation of the Malampaya Depletion Compression Platform (DCP).



Chain-soil Interaction In Carbonate Sand

S. Frankenmolen, Shell Global Solutions International BV; **D. White**, C. O'Loughlin, University of Western Australia

Synopsis: This presentation outlines the design considerations for chain-soil interaction and provides guidance for interface management. Results of a centrifuge program are presented and interpreted against the backdrop of conventional design assumptions and existing theories for chain-soil interaction. Using the interpreted results, a new method for the analysis of chain-soil interaction in carbonate sands is then proposed.



Monotonic and Cyclic p-y Curves for Clay based on Soil Performance Observed in Laboratory Element Tests

Y. Zhang, K.H. Andersen, R.T. Klinkvort, H.P. Jostad, N. Sivasithamparam, **N.P. Boylan**, T. Langford, Norwegian Geotechnical Institute

Synopsis: This presentation introduces a numerical framework for monotonic and cyclic p-y curves for piles in clay, based on soil performance observed in laboratory element tests. A framework for constructing monotonic p-y curves from the stress-strain response measured in direct simple shear (DSS) tests and developed from a parametric finite element study is first presented. An extension of this framework for analysing cyclic loading using the cyclic accumulation procedure established at NGI in the last few decades is then proposed.



Structures Deepwater Installation Challenges - North West Shelf, Australia

T. Broadway, SapuraAcergy, **V. Tachoures**, Subsea 7

Synopsis: Today's oil and gas developments continue to push the envelope with regard to the increasing weight and size of subsea structures and installation water depth. This presentation provides an insight into the challenges encountered and overcome to install 20 subsea structures, some close to 1000Te in weight and in water depths of up to 1650 m. The work was for the Chevron-operated Gorgon Project in Western Australia.

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(2.0 CPD hours can be claimed for this event.
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