

Atteris travels to South Korea

Two pipeline engineers from Perth-based pipeline engineering consultancy, Atteris Pty Ltd, travelled to Busan, South Korea, in June 2014 to present at the 24th International Offshore and Polar Engineering Conference.

The International Offshore and Polar Engineering (ISOPE) Conference is the world's largest technical conference of its kind, publishing peer-reviewed papers since 1992.

Dr Bassem Youssef of Atteris presented a technical paper titled 'Calibration of Verley and Sotberg Soil Resistance Model for Pipelines Placed on Calcareous Soils'. The paper is co-authored by University of Western Australia (UWA) Director of the Centre for Offshore Foundation Systems, Professor Mark Cassidy.

The Verley and Sotberg energy-based soil resistance model for silica sand is recommended by Det Norske Veritas, and widely accepted and used by the offshore pipeline engineering industry to model the pipe-soil interaction on seabeds comprising silica sands. However, seabeds comprising predominantly calcareous sands are found in many of the world's offshore hydrocarbon development regions, including offshore of Western Australia. The engineering characteristics of calcareous sands are different from those of silica sands, thus the Verley and Sotberg parameters for silica sand soils are not suitable for calcareous sand soils.

The technical paper introduces a calibration of the Verley and Sotberg silica sand resistance model for calcareous sand soil conditions using results from centrifuge testing performed at UWA of a pipe model on calcareous sand soils.

Jol Godbold, also of Atteris, presented a technical paper titled 'Stability Design for Concrete Mattresses'. This paper reviews design work previously carried out for a project in the North West Shelf of Western Australia and proposes an industry design methodology for concrete mattress stability, for which there is currently no universally accepted approach. The design methodology has been calibrated by physical model testing in UWA's large O-Tube hydraulic testing facility. The laboratory testing was led by Professor Laing Cheng of UWA, who also co-authored the paper.



Dr Bassem Youssef, Senior Engineer, Atteris.

Previously, Atteris pipeline engineers have attended and presented at national and international conferences and conventions, including the APIA Convention; the Australian Petroleum Production and Exploration Association (APPEA) Conference and Exhibition, the Australasian Oil and Gas (AOG) Exhibition and Conference; the Australasian Corrosion Association (ACA) Conference; the Australasian Society for Trenchless Technology (ASTT) No-Dig show; the Offshore Technology Conference (OTC) in Houston; the Offshore Pipeline Technology Conference (OPTC) in Amsterdam; and



Jol Godbold, Lead Engineer, Atteris.

the International Conference on Ocean, Offshore and Arctic Engineering (OMAEO). The technical papers presented at this year's ISOPE Conference continues to demonstrate Atteris' contribution to the national and international oil and gas industry. **P**

For more information or to receive a complimentary copy of the technical papers email info@atteris.com.au

Want to know more about the O-Tube hydraulic testing facility? Turn to page 136.

The technical paper introduces a calibration of the Verley and Sotberg silica sand resistance model for calcareous sand soil conditions using results from centrifuge testing performed at the University of Western Australia of a pipe model on calcareous sand soils.