SUT OSIGp Technical Webinar

Friday 23 May 2025, 9.30 am – 10.30 am, Microsoft Teams Meeting

Combined CPT+NMR Tool for Enhanced Geotechnical Characterization of the Seabed

Dave Walsh, Founder & President, Vista Clara Inc

Chaired by: Cathal Colreavy, Opifex

This presentation will introduce a newly developed technology that combines cone penetrometer test (CPT) and nuclear magnetic resonance (NMR) measurements into a single CPT-pushable tool. We will present an overview of the concept and discuss the economic and scientific motivations for combining CPT and NMR into a single measurement. We will then summarize the tool development and current tool specifications. We will present several examples of applications of the tool, including land-based measurements to characterize the geotechnical and hydrogeologic properties of saturated and unsaturated sediments, measurements from a jack-up barge to investigate lakebed sediments, and measurements from a seabed-deployed CPT rig to characterize marine sediments as part of an offshore wind cable route survey.

About the speaker:

Dave Walsh is the founder and President of Vista Clara Inc, where they have spent the past 22 years focusing on the development and commercialization of NMR geophysical instruments. Dave's contributions to the field include the development of multi-channel surface NMR instrumentation and processing methods for groundwater investigations, the development of small-diameter low-cost borehole NMR logging tools for hydrological investigations, the development of direct push and CPT-based NMR technologies for geotechnical and hydrologic characterization of sediments, and the development of nuclear quadrupole resonance sensors for the detection of buried explosives. Dave earned their Ph.D. and M.S. degrees in Electrical Engineering from the University of Arizona, and B.S. degree in Electrical Engineering from Iowa State University.

REGISTRATION:

SUT Members: FREE
Non-Members: FREE

This is a FREE event. However, registration is essential. Should you have any questions please contact the SUT on + 61 (0) 8 9481 0999 or email perthevents@sut.org.

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