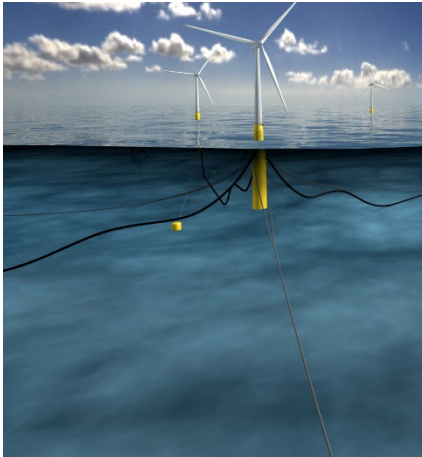


Research Fellow Position Geotechnics for Offshore Wind Energy



The Centre for Offshore Foundations Systems (COFS) at UWA is seeking a research fellow with a strong background in geotechnical engineering to support their research activities in ocean renewable energy. This is an opportunity to work with a large team of internationally recognised researchers, with access to state of the art experimental and numerical facilities and engaging strongly with industry, regulatory and government bodies in the ocean renewable energy space. This opportunity is a collaboration with the Norwegian Geotechnical Institute (NGI) in Oslo.



Reducing geotechnical design conservatism to secure floating wind energy

The next frontier for offshore wind energy is moving further out to sea to avail of stronger and more consistent wind speeds. In these water depths, wind turbines are installed on floaters tethered to anchors in the seabed.

This project will, through numerical developments, geotechnical centrifuge modelling and field testing, develop a reliability-based geotechnical design approach to make floating offshore wind energy economic and viable.

Objectives of the project include:

- extending a critical-state soil mechanics framework to allow for soil strength changes in a variety of soil types;
- developing coupled macro-element models for plate and pile anchors to enable them to allow for ‘whole-life’ soil strength changes; and
- producing an experimental database that shows how the geotechnical performance of plate and pile anchors for floating wind turbines is improved by whole-life loading.

This is a full time, 3 year position with the Centre for Offshore Foundation Systems at UWA. To find out more contact Conleth O’Loughlin at conleth.oloughlin@uwa.edu.au or apply at tinyurl.com/359pwt97 .

