



Position Title:	Research Associate / Research Fellow
Position Classification:	Level A/B
Position Number:	316782
Faculty/Office:	Faculty of Engineering and Mathematical Sciences
School/Division:	Oceans Graduate School
Centre/Section:	Centre for Offshore Foundation Systems
Supervisor Title:	Associate Professor
Supervisor Position Number:	310534

Your work area

The ARC Industrial Transformation Research Hub for Offshore Floating Facilities (OFFshore ITRH) is led by a team of 25 academic staff principally based in the Centre for Offshore Foundation Systems (COFS), within the Oceans Graduate School. UWA hosts more than 40 academics with interests in offshore engineering and ocean systems.

Research Fellows and PhD students in the OFFshore ITRH are part of a team with world-leading skills, unique research facilities and well-established links with the Australian and international oil and gas industries. UWA is located 4 km from the Perth CBD, where all Australian Headquarters of the major oil and gas operators are located.

UWA has invested heavily in research infrastructure to support offshore engineering, creating computational and experimental capabilities that underpin our research and our industry support. We also have ongoing partnerships with oil and gas operators, consultants and contractors, often through collaborative activity in the field. These relationships have allowed the OFFshore ITRH to be established in close partnership with Shell, Woodside, Lloyds Register and Bureau Veritas.

Offshore Engineering is a strategic focus for the university. Key research facilities include the National Geotechnical Centrifuge Facility, the unique O-tube flumes for simulating cyclone speed currents and ocean-seabed interaction, an extensive pool of oceanographic instrumentation, and the Pawsey supercomputing facilities which we use extensively for computational fluid dynamics (CFD) simulations.

The OFFshore ITRH involves five interlinked projects that span critical engineering challenges associated with the design and operation of current and new offshore floating facilities. The research programs involve a blend of physical and numerical modelling supported by fieldwork and analysis of observations from existing facilities. Our industry partners are shaping the research direction, driving the technology transfer, and assisting with the mentorship of the researchers and students.

Reporting Structure

Reports to: Associate Professor

Your role

You will work with the Chief Investigators (CIs) and industry partners to undertake geotechnical research within the “Anchors and Foundations” research stream and assist with research student training.

Your key responsibilities

To develop and carry out physical, numerical and analytical modelling to investigate the performance of novel anchoring systems and foundations for subsea structures and to develop technology and design approaches aiming at reducing the size of these geotechnical components, thus easing installation challenges and reducing project cost. Physical modelling may include both centrifuge and (onshore) field testing.

Collaborate and engage with the OFFshore ITRH industry partners and the wider oil and gas industry at a local, national and international level.

Promote research projects via publication of research papers and presentations at international conferences and workshops.

Support transfer of the OFFshore ITRH research into practice in collaboration with the OFFshore ITRH industry partners.

Supervise and assist with the training of research students.

Participate in the OFFshore ITRH activities and contribute to/organize group projects, workshops and other processes.

Other duties as directed.

Your specific work capabilities (selection criteria)

A PhD in Civil Engineering, with a specialisation in Geotechnical Engineering or a closely related field.

Relevant research experience (or advanced engineering practice) and expertise at an appropriate level in one or more of the following areas: soil-structure interaction, physical modelling, analytical modelling, numerical modelling or field testing.

Experience preparing manuscripts for publication and giving presentations at conferences.

Experience supervising and training postgraduate or undergraduate research students.

Highly developed written and verbal communication skills.

Ability to work independently, show initiative and work productively as part of a team.

Demonstrated commitment to service roles in the workplace.

Desirable

Experience in synthesising research outcomes into design guidance documents is desirable, but not essential.

Experience interacting with the offshore engineering industry is desirable, but not essential.

Special requirements (selection criteria)

There are no special requirements

Compliance

Workplace Health & Safety

All supervising staff are required to undertake effective measures to ensure compliance with the Occupational Safety and Health Act 1984 and related University requirements (including Safety, Health and Wellbeing Objectives and Targets).

All staff must comply with requirements of the Occupational Safety and Health Act and all reasonable directives given in relation to health and safety at work, to ensure compliance with University and Legislative health and safety requirements. Details of the safety obligations can be accessed at <http://www.safety.uwa.edu.au>

Inclusion & Diversity

All staff members are required to comply with the University's Code of Ethics, Code of Conduct and Inclusion and Diversity principles. Details of the University policies on these can be accessed at <http://www.hr.uwa.edu.au/policies/policies/conduct/code>, <http://www.web.uwa.edu.au/inclusion-diversity>