THE UNIVERSITY OF
**WESTERN
AUSTRALIA**
SEEK WISDOM

POSITION
DESCRIPTION

Position Title	Research Fellow- Oceanography (Surface waves)
Classification	Level B
School/Division	Oceans Graduate School
Centre/Section	
Supervisor Title	Associate Professor
Supervisor Position Number	FSR 312203
Position Number	FSR

Your work area

This position is within the ARC Industrial Transformation Research Hub for Transforming energy Infrastructure through Digital Engineering (TIDE ITRH), based at the Indian Ocean Marine Research Centre (IOMRC) at UWA.

The TIDE ITRH comprises four interlinked research themes working together to deliver projects using state of the art data science and engineering techniques to transform the operation of energy infrastructure. The research themes blend of physical and numerical modelling, supported by fieldwork and the robust analysis of key observations from existing facilities. Our industry partners are helping to shape the research direction, drive technology transfer, and assist with mentoring our researchers and students.

The position will be part of the Oceans Graduate School (OGS). The OGS is home to a critical mass of researchers spanning ocean engineering, oceanography and marine science. The OGS hosts the Centre for Offshore Foundation Systems, Marine Energy Research Australia, the ARC Research Hub for Offshore Floating Facilities, Woodside's FutureLab collaboration network, and the ARC Centre of Excellence for Coral Reef Studies. OGS researchers conduct world-leading research to provide ocean solutions in relation to the marine environment and resources, engineering and technology.

Reporting structure

Reports to: Associate Professor

Your role

To work with the Chief Investigators (CIs), Partner Investigators (PIs) and industry partners to undertake research in the oceanographic field within the Applied Theme 1 (Characterising the ocean environment using sparse and uncertain data) research theme.

As the appointee you will participate in and coordinate research relevant to the study of surface wave dynamics and their forecasting. The successful candidate will have skills in numerical wave modelling, the analysis of in situ wave data, and ideally data assimilation. The position requires a background in the dynamics of surface waves and numerical modelling.

Core duties of the position will include the development of techniques to improve ocean basin and regional wave forecasts using novel applications of data assimilation from in situ observations and the application of data science techniques.

The multi-disciplinary nature of the project will require the applicant to participate in collaboration across the fields of oceanography, hydrodynamics, geotechnics, marine structures and data science.

Your key responsibilities

To develop methods for the improved forecasting of surface waves with quantified uncertainty.

Collaborate and engage with the TIDE ITRH industry partners and the offshore industry at a local, national and international level.

Work collaboratively with other researchers and students in the research team.

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

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

Assist in the training of undergraduate, masters, and PhD students.

Assist in establishing the computing systems to support the storage, quality control and analysis of datasets from an extensive array of historic and new data streams.

Participate in TIDE ITRH activities and contribute to/organize group projects and workshops.

Other duties as directed.

Your specific work capabilities (selection criteria)

A PhD in physical oceanography, coastal/ocean engineering, or a related field.

Expertise in the modelling of ocean surface waves and/or analysis of in situ wave observations

Strong computational, statistical and numerical analysis skills.

Highly developed interpersonal, verbal and written communication skills with the ability to work independently as well part of a team.

Willingness to supervise Honours, Masters and PhD students.

Experience with data assimilation and/or data science techniques including machine learning or statistical modelling is highly desirable.

Special requirements (selection criteria)

There are no special requirements

Compliance

Ensure you are aware of and comply with legislation and University policy relevant to the duties undertaken, including:

The University's Code of Conduct hr.uwa.edu.au/policies/policies/conduct/code/conduct

Inclusion and Diversity web.uwa.edu.au/inclusion-diversity

Safety, health and wellbeing safety.uwa.edu.au/