

Project overview**Project title**

Living near a giant: hydrodynamics of cables emerging from offshore wind turbines.

Project description

This project aims to understand turbulent ocean wave and tidal flows near offshore wind turbine foundations and to develop novel design guidelines for underwater power cables as they emerge from these foundations. The expected outcome is to contribute to the stability design of subsea power cables, thereby safeguarding the emerging offshore wind industry in Australia. The project will help reduce stability failures of subsea power cables at critical locations, increasing the reliability of offshore wind energy systems and supporting Australia's clean energy transition.

Supervisory team**University**

Name of university supervisor	Feifei Tong
Name of university	The University of Adelaide
Email address	feifei.tong@adelaide.edu.au
Faculty	Faculty of Sciences, Engineering and Technology

CSIRO

Name of CSIRO supervisor	Aaron Thornton
Email address	aaron.thornton@csiro.au
CSIRO Research Unit	Manufacturing

Industry

Name of industry supervisor	Terry Griffiths
Name of business/organisation	Aurora Offshore Engineering Pty Ltd
Email address	terry@aurora-oe.com

Further details

Primary location of student	The University of Adelaide, North Terrace, Adelaide SA 5005, Australia
Industry engagement component location	Aurora Offshore Engineering Pty Ltd, 2/454 Roberts Road, Subiaco WA 6008, Australia
Other locations	CSIRO Lindfield, 36 Bradfield Road, Lindfield NSW 2070, Australia
Ideal student skillset	Essential: • Strong foundation in fluid dynamics and hydrodynamics. • Knowledge of offshore systems, such as oil and gas systems, or offshore wind and wave systems. • Proficiency in computational modelling (e.g., computational fluid dynamics). • Strong analytical and problem-solving skills as demonstrated by relevant professional experience. • Familiarity with data analysis and visualisation tools (e.g., MATLAB, Python). • Effective skills in communicating technical knowledge to a general audience.

	Desirable: • Experience in offshore engineering or renewable energy projects. • Research publication or presentation experience in top-level journals and conferences.
Application close date	Open until position filled
Apply	Contact Feifei Tong

CSIRO Industry PhD Program details

The Opportunity

The CSIRO Industry PhD Program (iPhD) is a four-year research training program, focusing on applied research that benefits industry by solving real-world challenges. It aims to produce the next generation of innovation leaders with the skills to work at the interface of research and industry in Australia.

The Program includes:

- Admission to a university PhD program.
- Supervision by the participating university, CSIRO, and an industry partner.
- A four year scholarship package totalling approximately \$47,000 per annum tax exempt (2025 rate).
- A four year Project Expense and Development package of \$13,000 per annum.
- A 60 day Industry Engagement component with the industry partner.
- A structured professional development and training program to develop your applied research skills.

Successful students are subject to the policies, procedures and guidelines of the participating university in addition to the CSIRO Industry PhD Program terms and conditions. Students will receive a standard PhD on completion.

Eligibility Requirements

The student must:

- Be an Australian citizen or Permanent Resident, or a New Zealand citizen.
- Meet participating university PhD admission requirements.
- Meet university English language requirements.
- Not have previously completed a PhD.
- Be able to commence the Program in the year of the offer.
- Enrol as a full-time PhD student. Part-time arrangements may be considered if approved by the supervisory team and in accordance with university policy.
- Be prepared to be located at the project location(s) that the host university has approved and, if required, comply with the host university's external enrolment procedures.
- Be prepared to undergo onboarding to CSIRO, which will include passing mandatory government background checks (allow for between 4 to 8 weeks) and complete any other CSIRO requirements.

Application Process

- Applicants are required to submit an expression of interest (EOI) following the instructions detailed on the participating university's webpage.
- The EOI is assessed by the supervisory team and shortlisted applicants are interviewed.
- The supervisory team nominates a preferred applicant and informs iPhD office and the Graduate Research School (or equivalent).

Further information

- Visit our [website](#)
- Contact your Graduate Research School

- Contact the [iPhD team](#) and [Subscribe to our newsletter](#)