



The EPSRC Centre for Doctoral Training in Offshore Wind Energy Sustainability and Resilience

Industry Research Prospectus

*Research, innovation and a talent pipeline
for the Offshore Wind Sector*



Funded by



Led by



In partnership with



The Aura CDT in Offshore Wind Energy

Centres for Doctoral Training are platform government funding for research, innovation and skills training, underpinning core components of the UK economy

The Aura CDT integrates £17m of UKRI, university and sector investment. Research and innovation is co-created with over 40 stakeholders to address industry and policy needs.



Push the frontiers of offshore wind technology

Understanding the engineering and environmental challenges around OW expansion into new, more challenging environments further from shore in deeper water.



Accelerate consent and support environmental sustainability

Speeding up the typical consent process requires integrated use of diverse models and data sources to advance understanding of OW environments.



Achieve a sustainable wind farm lifecycle

Increasing sustainability and efficiency while promoting rapid innovation is critical for keeping the UK at the forefront of the industry.



Build and support a sustainable workforce

A thriving industry must be diverse, providing a safe, fulfilling and equitable environment for all staff; an understanding of human factors and humans-technology interaction is key.



Develop a resilient net-zero energy system

The UK transition to net-zero by 2050 requires a resilient and integrated energy system. OW will form the backbone of the future energy system but must adapt to enable increased integration.

The Aura CDT provides a 4-year taught and research programme to grow future leaders:

- **A high intensity 6-month training programme to embed cross-disciplinary thinking**
- **Rapid start on cutting-edge research and innovation within 6 months of enrolment**
- **Focused Continuing Professional Development programme to build business skills.**

The Aura CDT is providing research solutions to industry-specific challenges, via:

Over £60k government funding, per project, to support your company's research and innovation needs*

- Access to leading expertise and unique technical facilities.
- University or partner placement, with full- and part-time available.
- Start dates available across five cohorts, 2024 through to 2028.

*Costs are based on 50% contribution, starting at £59,010 per project for a 2024 enrolment for the postgraduate researcher. Estimates are subject to increases in UKRI rates in future years.



UKRI Strategy 2022–2027

Transforming tomorrow together

Aura was spotlighted by UKRI as the national exemplar for postgraduate skills, training and research as:

“demonstrating the innovative approach of the Aura Centre in developing skills and talent for the offshore wind sector.”

Professor Dame Ottoline Leyser, Chief Executive, UK Research and Innovation

Powering the Offshore Wind Industrial Growth Plan



The Aura CDT

“is an exemplar of how a region can harness the industry, local enterprises, innovation providers and skills agencies, bring the public and private sector together to promote regeneration and grow capability in the region.”

2019 Industrial Strategy Offshore Wind



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2019 Industrial Strategy Offshore Wind

“They’re at the forefront of what we are thinking at this level.. absolutely spot on to the challenges that we face at the moment”

Will Apps, Offshore Wind Strategy Director, The Crown Estate

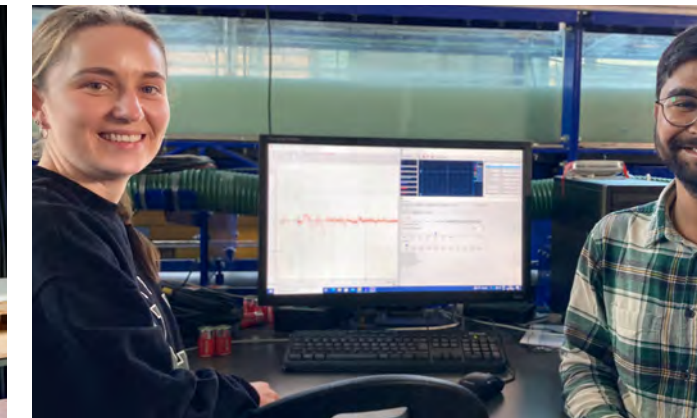
Developing solutions to evolving challenges

The rapid expansion of offshore wind energy is generating new challenges, and the transdisciplinary Offshore Wind CDT is uniquely placed to develop the solutions.



“What struck me is the multidisciplinary nature of the research projects and how all of those disciplines work together to solve a problem”

David Bould, Head of UK&IE Ventures & Open Innovation, Ørsted



Lisa Somerville:

Virtual reality based study of solutions to sea-sickness, improving the efficiency of the offshore workforce.

Funded by Offshore Renewable Energy Catapult



Oliver Morgan-Clague:

Developing new numerical models to optimise resin injection and reduce cost of the blade manufacture process.

Funded by Siemens Gamesa Renewable Energy

Maisy Bradbury:

Physical and numerical tests of the efficiency of scour mitigation methods to reduce turbine foundation costs.

Funded by HR Wallingford

Siti Khadijah Hamzah:

Modelling and optimising DC transmission infrastructure for the integration of offshore wind energy.

Funded by UKRI

“The Aura CDT is a really powerful quartet of universities.. There’s this real buzz of industrial universities coming through with some great thinking and I think it’s a very powerful combination”

Jane Cooper, Executive Director of Offshore Wind, Renewable UK



To meet sector targets, the industry is moving beyond existing development zones into more challenging, less well-understood environments. Sustainability is a key challenge, in terms of environmental impact, resource requirements and workforce; as well as improved integration into wider energy systems.

The Offshore Wind CDT recruits exceptional researchers from diverse backgrounds.

Under the guidance of academic and industry mentors, they are uniquely placed to meet these intersecting industry challenges.

Find out more about Aura Research and Innovation



Partner Opportunities

Leading academic and industry collaboration for a sustainable sector

Work with us to:

- Access the best talent with holistic skills and expertise in offshore wind
- Engage with world-leading experts and access state-of-the-art facilities
- Help steer our programme and shape the future leaders of the offshore wind sector

Partner benefits:

- Access our world leading cluster of experts to address your challenges in offshore wind energy
- Network with sector businesses through the Aura CDT
- Stay up to date with our annual showcase of Research, Development and Innovation
- Access to the best students for placements or internships
- Engage with future leaders via on-site visits or CPD
- Lead innovation by sharing expertise, resources or data
- Develop ideas via small research projects
- Raise company profile through guest lectures

Contact **auracdt@hull.ac.uk** and book an exploratory meeting to build your bespoke partnership

Help us to shape the development of offshore wind sector future leaders

