

# UK-China ORE Centre for Offshore Renewable Energy

## 中英海洋能联合研究计划

### Learning through engagement

**Prof Lars Johanning**

The University of Exeter

Chair of UK&CHN | CORE



[L.Johanning@exeter.ac.uk](mailto:L.Johanning@exeter.ac.uk)

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# UK&CHN | CORE website



UK&CHN | CORE

UK & China Centre for Offshore Renewable Energy



Publications →



## Building a better future through a shared **knowledge platform**

A combined UK and China government initiative, the ORE International Impact Platform is a space where industry leaders and educational institutions' shared knowledge is brought together from across the world.



[info@ukchn-core.com](mailto:info@ukchn-core.com)

[www.ukchn-core.com](http://www.ukchn-core.com)



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UK & CHINA CENTRE FOR OFFSHORE RENEWABLE ENERGY

# Objectives of UK – China ORE projects



## Sharing

This UK-China CORE program will help to develop the interface between researchers and the user community in government and businesses outside the programme membership, and to share research outcomes, data resources and best practice between the grants – all designed to maximise impact.

## Knowledge

The ORE program ambition is to develop the next generation of technologies for the safe, secure, cheap and efficient provision of clean energy; building resilience against extreme events into ORE systems.



## Innovation

The activities will be directly build into a 'Research Bridge' using the outcomes to exchanging the knowledge into the other themes, whilst using the bridge to inform the activities within this project to enable a joined-up interdisciplinary and international programme of work.

## Impact

To develop a knowledge exchange strategy which incorporates a plan of co-ordinated activities and details how the research teams will work together to engage stakeholders and maximise impact through the establishment of the UK-China CORE programme





- **62 publications available on the website**

## Publications

Current and future research fundamentally relies on access to the findings and ideas that come out of publicly-funded research.

As a result the UK-CHINA CORE program fully support the concept of universal access so that everyone can benefit from research outcomes and publications are in compliance with funder open access requirements.

Verification of a Boundary Element Model for Wave Forces on Structures with Porous Elements	Document
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Download →

A SIMPLE AND ROBUST METHOD FOR CALCULATING RETURN PERIODS OF OCEAN WAVES	Document
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Long-term distributions of individual wave and crest heights	Document
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A generalised equivalent storm model for long-term statistics of ocean waves	Document
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# Future opportunities

UK-CHINA National Ocean Energy  
Technology Centre (OceanTeC)

Vision

VISION



# UK-CHINA National Ocean Energy Technology Centre (OceanTeC)

英中国海洋能源技术中心 (OceanTeC)

**Aims to integrate leading UK-CHINA research excellence to advance the strategic development of Ocean Technology**

旨在整合领先的英中研究卓越成果，以推进海洋技术的战略发展

# UK-CHINA National Ocean Energy Technology Centre (OceanTeC)

## Objectives:

- **As well as maintaining the strength of UK-CHINA research, to work in collaborative partnership to support industry developments in ocean technologies.**
- 在保持英中研究实力的同时，要开展合作伙伴关系以支持海洋技术行业的发展。
- **To enable high-profile, best-with-best international collaborations focused on excellent research with impact.**
- 为了实现高关注度，最好的国际合作，以具有影响力的优秀研究为重点

在保持英中研究实力的同时，要开展合作伙伴关系以支持海洋技术行业的发展。

# UK-CHINA National Ocean Energy Technology Centre (OceanTeC)

## Objectives:

- **To enable high-quality research ambitions to Delivery Plan outcomes and ambitions.**  
➤ 为了实现高质量的研究抱负，以实现交付计划的成果和抱负
- **To further the UK & Chinese ORE strategic needs in international science and innovation partnerships.**  
➤ 在国际科学与创新合作伙伴关系中进一步推动英中两国的**ORE**战略需求



# Ocean Technologies 海洋技术

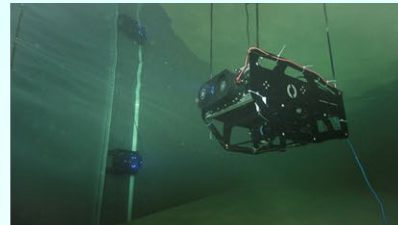


# Future Applications 未来的应用

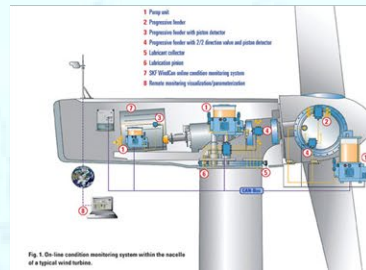
Application of Digital Twins



Robotics and Autonomous systems



Advanced predictive maintenance



Maximising output: next gen energy storage and transmission



# Collaboration

## Research Centre

UK-CHINA National Ocean Energy Technology Centre (OceanTeC)



UK

UK - CHINA

## Industry Centre



UK - CHINA

**启迪中英海洋科技研究院**  
TUS-ORE CATAPULT RESEARCH CENTRE (TORC)



- UK China Research Projects
- Support Innovative SME
- Support Technical and Testing Development
- Support China Offshore Wind Developers
- Investment links

- Exchange of researchers between UK and Chinese universities 中英大学之间的研究人员交流



- Technology investment fund 技术投资基金
- Government grant/co-investment fund 政府补助/联合投资基金
- Technology commercialisation potential due diligent 技术商业化潜力尽职调查

**Thank you for listening**



[L.Johanning@exeter.ac.uk](mailto:L.Johanning@exeter.ac.uk)

