



Maynooth University Ollscoil Mhá Nuad

Department of Electronic Engineering Centre for Ocean Energy Research Post-Doctoral Researcher / Senior Post-Doctoral Researcher (54 month contract / until 30.11.27)

The Role

The Centre for Ocean Energy Research (COER) at Maynooth University, Ireland has a further opportunity for one senior or entry level postdoctoral researcher on a prestigious new Science Foundation Ireland ocean energy project:

Economic wave energy through technical innovation (SeaChange)

Some project detail:

Despite the vast global wave energy potential, and the need to diversify the range of renewable energy sources to provide dispatchable carbon-free energy, the current cost of wave energy makes it relatively uneconomic in relation to other renewable, and non-renewable, energy forms. This project proposes a combination of strategic technological improvements, with both broad applicability as well as specific device improvements, to effect a significant impact on the economic performance of wave energy systems and produce the step change needed to accelerate the technical and commercial development of wave power. Collaborators have been drawn from the University of Illinois (USA), CorPower Ocean AB (Sweden), National Renewable Energy Lab. (NREL, USA) and TU Denmark.

This project is funded by [Science Foundation Ireland](#) and the successful candidate will join a dynamic group of around 25 postdoctoral, PhD and other researchers in COER, who work on the development of wave energy technology, with projects funded from various national and international sources. COER also has a wide range of eminent industrial and academic collaborators.

This post presents significant opportunities for career development in relation to sourcing of independent research funding, research management and supervision; mentoring in these aspects will be provided.

Principal Duties

Administrative and other duties:



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This will include:

- Control co-design of wave energy systems
- Development of actuated geometry mechanisms and associated control
- Wave energy converter (WEC) lifetime enhancement through control action modulations
- Fault-tolerant control of WECs
- Economical analysis of results
- Communication and dissemination activities
- Collaboration and interfacing with project academic and industrial partners.
- Some PhD student mentoring and project management.

The ideal candidate will have:

- A PhD in mechanical/electrical/electronic/control engineering or a closely related discipline.
- Some postdoctoral experience and a record of scholarly publication and academic excellence.
- Robust analytic and programming skills.
- Experience with wave energy (control/modelling).
- Good organisational skills and a sense of the broader (e.g. economic) aspects of wave energy.

Centre for Ocean Energy Research (COER)

COER is an active international research centre involved in fundamental and applied research. It is funded by a range of external sources including industry, national agencies (Such as Science Foundation Ireland, Enterprise Ireland etc.) and international agencies including the European Union H2020 research programmes. COER has a wide range of national and international collaborators and a staff complement consisting of academic staff, postdoctoral researchers, research students and interns, all of which have a strong international dimension. There are also frequent international visitors to the centre. Further information is available at: coer.maynoothuniversity.ie

COER staff publish in top ranked journals and conferences and also hold a range of international patents in the area of ocean energy. Much of the group's work is industrially relevant and various aspects of the technology developed by COER has been licensed to industry in Ireland, the UK and the US.

The University

Maynooth University is a very distinctive university, a collegial institution focused on science and engineering, humanities, and social sciences, and equally committed to research, teaching and community engagement. Located in Ireland's only university town, its distinctive features and character owe much to its unique history and heritage. It provides a high-quality educational experience to over 15,000 students on a campus with 18th century roots and 21st century dynamism.

The strategic trajectory and accomplishments of Maynooth University, in the 25 years since its establishment as an autonomous public university, are exceptional, and a source of great pride to the university community, staff, students and alumni. Maynooth University is now acknowledged to be one of the leading young universities in the world, and in 2022 ranked # 1 in Ireland in the latest Times Higher Education (THE) Best Young University Rankings. Maynooth University's growing global reputation is based on the originality, quality, importance and impact of its research and scholarship, commitment to teaching and learning, the quality of academic programmes, and its leadership in widening participation in higher education. The sources of success are the dedication of its staff and the energy and engagement of its students.



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Maynooth University is a place of lively contrasts – a modern institution, dynamic, rapidly-growing, research-led and engaged, yet grounded in historic academic strengths and scholarly traditions. With over 15,000 students Maynooth offers a range of programmes at undergraduate, postgraduate and doctoral level in the humanities, science and engineering and social sciences, including business, law and education. The University also offers a range of international programmes and partnerships.

Maynooth's unique collegial culture fosters an interdisciplinary approach to research, which its world-class academics bring to bear in tackling some of the most fundamental challenges facing society today. The University's research institutes and centres consolidate and deliver this impact as vibrant communities of learning, discovery and creation. Research at Maynooth also is very much central to its teaching and the University prides itself on placing equal value on its research and teaching missions.

Principles and Values

Maynooth University is committed to the following values:

- Scholarly rigour;
- Academic freedom;
- Integrity and ethical behaviour;
- Collegiality, transparency and trust;
- Equality, inclusiveness and social justice;
- Operational excellence, organisational flexibility and responsiveness;
- Dignity, respect and care for the individual.

Strategy 2018 - 2022

The University's Strategic Plan 2018-22 builds from a position of confidence. Maynooth University is a University with ambition, vision and values, a clear identity and sense of purpose, a history of achievement, and a future of considerable promise. The Strategy builds on the University's accomplishments and concentrates institutional energy and resources on further development of research and postgraduate education.

For more information please visit <http://www.maynoothuniversity.ie/about-us/university-strategic-plan>

Selection and Appointment

- Only shortlisted candidates will be invited to attend for interview;
- Appointments will be approved by the President based on the report of the selection board;
- It is anticipated that interviews will be held during the week of the 12th December 2022;
- The appointment is expected to be effective as soon as practicable following the offer.

Equality and Diversity

Maynooth University values the enrichment that comes from a diverse community and seeks to promote equality, prevent discrimination and protect the human rights of each individual. To learn more about our commitment to Equality and Diversity, please read the Maynooth University [Equality and Diversity Policy](#). Additionally, as an [Athena SWAN Bronze Award](#) Institute, we are committed to advancing gender equality across the University.

We aim to reflect the diversity of the community we serve and welcome applications from all individuals, in particular from people underrepresented in our workforce.



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Terms and Conditions

This is a 54-month / until 30th November 2027 contract.
The place of work is the campus of Maynooth University, Maynooth, Co. Kildare.

Data Protection Law

Maynooth University will process any personal data provided by you in connection with an application for this role in accordance with the General Data Protection Regulation and the Data Protection Acts 2018.

If your application is successful and you accept an offer of employment at Maynooth University, then your personal data will continue to be processed in accordance with Maynooth University's Staff Data Privacy Notice.

Both the privacy notices and further information relating to data protection, including Maynooth University's other data protection policies and processes, can be viewed at <https://www.maynoothuniversity.ie/data-protection>

Salary

Post-doctoral Researcher (2022): €39,523 - €45,609 p.a with annual increments (6 points)
Senior Post-doctoral Researcher (2022): €46,906 - €51,035 p.a with annual increments (4 points)

Appointments will be made in accordance with public sector pay provisions.

Application Procedure

Closing Date:

23:30hrs (local Irish time) on **Sunday, 27th November 2022.**

Please note all applications must be made via our **Online Recruitment Portal** at the following link:

<https://www.maynoothuniversity.ie/human-resources/vacancies>

Applications must be submitted by the closing date and time specified above. Any applications which are still in progress at the closing time on the specified closing date will be cancelled automatically by the system.

Late applications will not be accepted.

Maynooth University is an equal opportunities employer

The position is subject to the Statutes of the University



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