

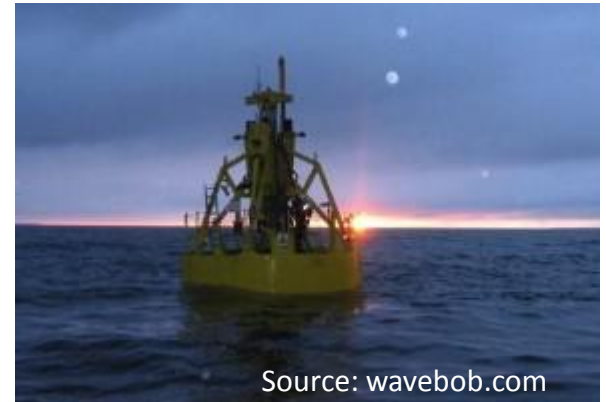
All-Island Master's in Marine Renewable Energy

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Background

- Employment in Marine Renewables is likely to grow strongly in the next decade
- Industry – via MRIA and SEAI – has identified a need for an advanced Master's programme in marine renewables.
- Significant expertise in Ocean Engineering & Marine Renewables in third-level institutions across the Island



Course development



- Course structure & content in active development since early 2012
- Course partners:
 - University College Cork
 - University College Dublin
 - National University of Ireland, Maynooth
 - National University of Ireland, Galway
 - University of Limerick
 - Cork Institute of Technology
 - Dublin Institute of Technology
 - Queen's University, Belfast

 - Supported by MRIA

Course structure

- One-year, full-time, taught Master's in Engineering Science
- First entry: September 2013
- 75% taught modules
 - September-March
 - Dedicated new courses in ocean energy topics
 - Advanced topics in civil, electrical, mechanical engineering
 - Transferrable skills: innovation, finance, research skills
 - 'Blended learning' approach
- 25% industry- or research laboratory-hosted project
 - Industry placement June-September

Taught module groups

- Advanced engineering modules
 - Power systems; control engineering; environmental hydrodynamics; maintenance & reliability; introductory ocean energy

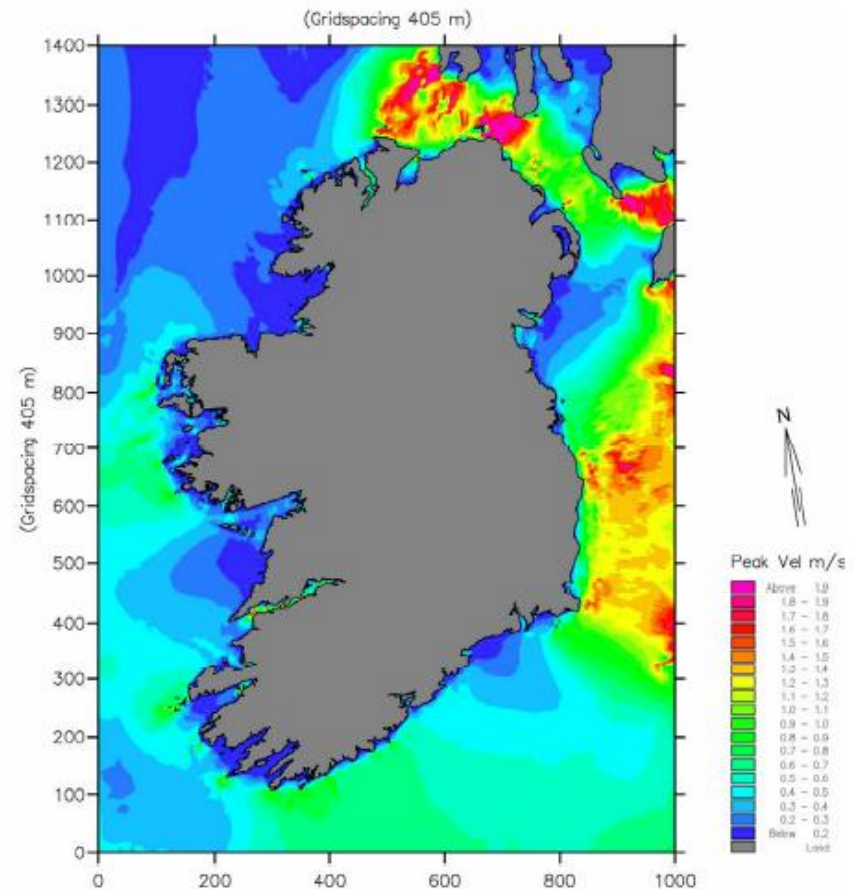
- Ocean engineering modules
 - Ocean-structure interactions; marine operations & robotics; ocean energy device design; tidal energy; control design for marine renewables; ocean energy conversion & mechanical engineering; grid integration & storage of marine energy

- Generic skills modules
 - Innovation finance; technology business planning; environmental impacts; research skills



Ocean Engineering Modules

- Seven advanced ocean energy modules have been specially developed for this course:
 - Ocean-structure interactions;
 - marine operations & robotics;
 - ocean energy device design;
 - tidal energy;
 - control design for marine renewables;
 - ocean energy conversion & mechanical engineering;
 - grid integration & storage of marine energy
- Internationally, this is a unique offering, and could only be delivered by combining all-island expertise



Depth-averaged peak spring tidal currents (source: SEAI)

Call for industry projects

- A key aspect of the course is the industry-focussed project
- Students will develop a project topic in collaboration with industry partner, and:
- Spend three months on placement with the industry partner carrying out the project to completion



- Potential industry project hosts – please contact me today or afterwards!

For further details

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