

PRIMaRE2021 Agenda

Day 1 (29th June) times are in UK BST (GMT+1 hour)

08:45 0845 Welcome (Matt Lewis)

09:00 Mark Hemer from CSIRO and CRC Blue Economy (Chair: Nicola Beaumont)

09:20 Cross-Cutting Session 1 (Chair: Nicola Beaumont)

Daniel Wood	Offshore Wind Farms & Marine Protected Areas: Scientific Evidence Needs for the successful use of Compensatory Measures
Jenny Bond et al.	Can citizen science and local knowledge provide robust evidence in consenting marine developments?
Andrew Edwards-Jones et al.	Local environmental impact underpins coastal community attitudes toward wave and tidal energy developments: A photo-elicitation study on the Bristol Channel, UK

10:00 Break

10:20 Marlène Moutel from Sabella (Chair Tim O'Doherty)

10:40 Tidal Energy Session (Chair Tim O'Doherty)

Larissa Perez et al.	Turbulence characterization and comparison from AD2CP measurements from two prospective tidal energy sites in Australia
Jingjing Xue et al.	Flexible Operation Optimisation of Tidal Lagoon
Matt Allmark et al.	Performance analysis of model-scale tidal stream turbines situated in different array configurations
Hafiz Ahmed et al.	Quasi-Continuous Sliding Mode Speed Control of Tidal Stream Turbine

11:30 Break

11:45 Flash talks (Chair: Scott Brown)

Sam Fredriksson et al.	Flow interaction between multiple tidal power plants (Deep Green) using large eddy simulations and the actuator line method
Grazia Todeschini et al.	Challenges and opportunities for the integration of tidal energy within the electricity system
Daniel Coles et al.	Array power curve: investigating a new method for computationally efficient tidal farm modelling
Paul Dené et al.	Optimization of the layout of vertical axis tidal turbine arrays for maximising power generation
Xiaorong Li et al.	A three-dimensional regional scale model for tidal stream turbine implementation and impact assessment
Michael Kennington et al.	Marine renewable energy resource mapping for observation and communication systems

12:00 Break

13:00 Jeremy Thake from Simec-Atlantis (chair: Matt Lewis)

13:20 Jess Hooper from Marine Energy Wales (chair: Matt Lewis)

13:40 Break

14:00 Marine Energy Wales hosted special session (Selkie and META)

16:00 Break

16:20 Tidal Energy and Cross-Cutting themes Session (Chair: AbuBakr Bahaj)

Arianna Zampollo et al.	The potential for wind farms to affect primary production
Andrea Copping et al.	A Framework for Resolving Collision Risk as a Barrier to Consenting Tidal Projects
Lenaig Hemery et al.	Are fish in danger? Review of effects of marine energy development on fishes

17:00 Zhaoqing Yang from PNNL & US. Dept of Energy (Chair: AbuBakr Bahaj)

17:30 Networking

Day 2 (30th June) times are in UK BST (GMT+1 hour)

08:55 **Welcome (Matt Lewis)**

09:00 **Paul Vigars from Bombora (Chair: Jun Zang)**

09:20 **Wave Energy session (Chair: Jun Zang)**

- Jessica Borges et al. Wave energy assessment and feasibility study for the island of 'Eua, Kingdom of Tong
- Michael O'Shea et al. Standardisation of Marine Renewable Energy Technology Testing
- Siya Jin et al. Study on short design waves in the prediction of extreme loads for a generic hinged-raft wave energy converter

10:00 **Break**

10:20 **Steve Jermy from WaveHub (Chair: Deborah Greaves)**

10:40 **Cross-Cutting themes Session 2 (Chair: Deborah Greaves)**

- Joanne Porter et al. INSITE 2: Connectivity of Hard Substrate Assemblages in the North Sea
- Ciaran Frost et al. The future of tidal stream in England and France – an analysis of costs, subsidies and expected capacity
- Jon Demmer et al. Multi-use platforms at sea in the Irish Sea: a numerical study

11:20 **Flash talks (Chair: Matthew Allmark)**

- Daming Wang et al. Tank testing of hinged-raft wave energy converter with representative sea states
- Qiang Liu et al. A machine learning model for wave prediction based on support vector machine
- Junru Chen et al. Analysis of higher harmonics in a focused water wave group
- Haoyu Ding et al. Comparisons between a Particle-In-Cell solver and OpenFOAM on the simulation of a TLP floating offshore wind turbine
- Qi Ye et al. Nonlinear structural response of floating offshore wind platforms
- Jingru Xing et al. 'One-fluid' formulation of fluid-structure interaction with mooring system
- Yi Wen et al. Spatio-temporal analysis of offshore wind field characteristics and energy potential in Southern China
- Peter Scheijgrond et al. Developing E-Learning courses for Offshore Renewable Energy sector
- Andrew Rawson Application of Quantitative Route Modelling of Navigation Safety Impacts of Offshore Wind Farms

11:40 **Break and Networking**

13:00 **George Crossley from FabTEST**

13:20 **Wind Energy session (Chair: Lars Johanning)**

- Pawel Manikowski et al. Single and multi-objective optimisation of benchmark wind farm optimisation problems
- Rachel Nicholls-Lee et al. Non-Destructive Examination of Dynamic Subsea Power Cables
- Shanshan Cheng Self-sensory carbon fibre textile-reinforced concrete for offshore floating foundations

14:00 **Flash talks (Chair: Paul Harper)**

- Agung Iswadi et al. Developing an agenda for biofouling research in Indonesia to support the development of marine renewable energy
- John Halpin et al. The North Sea 3D project – From footage to biomass
- Morgane Declerck et al. A new strategic tool to structure Cumulative Impact Assessment (CIA)
- Daniel Wood et al. Fixed and floating wind turbines
- Stephen Watson et al. The expansion of offshore windfarms: implications for ecosystem services
- João Fortes Complementarity in offshore renewable energy sources off the coast of São Paulo, Brazil.
- David Walker et al. The offshore renewable energy (ORE) sector is increasingly relying on the Internet-of-Things (IoT) and artificial intelligence (AI)
- David Mills et al. IMARDIS - An end-user driven cloud-based data infrastructure supporting the Welsh maritime sector

14:20 **Conference close, prize giving and hand over (Matt Lewis & Lars Johanning)**

