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http://w3.ualg.pt/~ampacheco/MORE/Home.html

Bilateral Meetings

- 10:00 h - 13:00 h
- 14:00 h - 16:00h

Description

The MORE - Marine Offshore Renewable Energy team - is a group of researchers from CIMA - Centre for Marine and Environmental Research. Our research focus is on support the optimization of different types of marine renewable technologies to produce energy from the ocean processes. We aim on creating new tools and methods to quantify the marine energy resources and studies the effects of exploitation of energy in marine ecosystems, using and testing full-scale prototypes and keeping a strong partnership with the industry. We have three projects on marine energy renewables:

WATTAGE - Workability Aspects of Tidal Turbine Arrays on producing Green Energy (OceanEra Joint Call 2014) - start schedule for 1st October 2016

SCORE - Sustainability of using Ria Formosa Currents On Renewable Energy production (funded by the Portuguese Foundation for Science and Technology FCT - PTDC/AAG-TEC/1710/2014) - started on 1st July 2016

IF - Exploring new concepts for extracting energy from tides (funded by the Portuguese Foundation for Science and Technology FCT- IF2014/00286);

Further research: We are partner of MONITOR - Multi-model investigation of Tidal Energy Converter reliability, an Atlantic Area project that successful pass to the 2nd stage. We are also expanding our research on floatable wind energy particularly on the concept of a new platform that could revolutionize the offshore wind energy market, submitting proposals under the H2020 and Innovate UK.

Organization Type
Research Institution
Organization Size
26-50

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Request

Wattage

Wattage - Workability Aspects of Tidal Turbine Arrays on producing Green Energy is a project approved under the OceanEra Joint Call 2014 match scheme (http://w3.ualg.pt/~ampacheco/Wattage/index.html). We are working closely with Ocean Flow Energy on the grid connected trials that are schedule for Sanda Sound (Kintyre Peninsula, West Scotland) and we need support to redeploy the E35 (35kW) Evopod prototype (http://www.oceanflowenergy.com/technology.html) in order to proceed with our objectives i.e. support the test of a prototype that is a TRL7 for up-scaling and array deployment.

Keywords: Scotland Tidal Energy Prototye testing Evopod Deployment and grid connection Maintenance Operation and Survivability Control Strategy
Cooperation Offered

1. License agreement
2. R&D Cooperation
3. Technical cooperation
4. Manufacturing agreement
5. Commercial cooperation

Cooperation Requested

1. Commercial cooperation
2. Technical cooperation
3. R&D Cooperation

Idea

Starfloat

Currently the predicted cost of electricity from deep water wind farms, which due to water depth require floating foundations, is higher than that of the nearshore wind farms that can use fixed foundation bottom mounted wind turbines. Many countries have deeply shelving coastlines that can only exploit their offshore wind resource using

floating solutions, e.g. almost the entire North Atlantic coastline. The current high cost of floating wind is a barrier to the exploitation of deeper water wind farm sites. The reason that floating foundations costs are higher is that the current solutions being offered are physical very large in order to achieve sufficient platform stability to support large capacity wind turbines. The innovation involves building a flotation collar that can be assembled in existing "Aframax" size drydocks. After float out a centre spar structure is stabbed into the flotation collar and the turbine tower and nacelle added. The compact dimension, simplicity of the solution and avoidance of expensive offshore assembly operations has the potential to make electricity from deep water wind farms an attractive economic proposition.

Keywords: offshore wind business model assemble units technical feasibility wind farm Aframax docks shipbuilding industry

Cooperation Requested

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2. Manufacturing agreement
3. R&D Cooperation
4. License agreement