# 1st International Conference on Renewable Energies Offshore
## RENEW 2014

**SCHEDULE AT A GLANCE**

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S. Bray, R. Ahmadian and R. Falconer

An implicit model of a submerged horizontal cylinder oscillating about an off-centered axis as a wave energy converter
A. Abbasnia, M. Ghiasi, J. Barandiarian and C. Guedes Soares

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Numerical Modelling of a Tidal Lagoon along the North Wales Coast
A. Angeloudis, R. Ahmadian, B. Bockelmann-Evans and R. A Falconer

ADCP measurements of Ocean Currents near Miyake Island for a Kuroshio Energy Converter Development Project

Data Assimilation with High-Frequency (HF) Radar Surface Currents at a Marine Renewable Energy Test Site L. Ren, S. Nash and M. Hartnett

Numerical investigation of the tidal energy potential in the Portuguese shelf
M. Marta-Almeida and C. Guedes Soares

The direct effect of waves on the tidal stream energy resource
M. Lewis, R. Hashemi, S. Neill and P. Robins

Optimal phasing of the European tidal stream resource using the greedy algorithm with penalty function
S. P. Neill, M. Reza Hashemi and M. J. Lewis

Resource assessment – Wave

Wave energy resource assessment from a 10-year hindcast, for Northern Spain
A. R. Bento, P. Martinho and C. Guedes Soares

Wave power resources at Portuguese test sites from 11-year hindcast data
D. Silva, P. Martinho and C. Guedes Soares

Evaluation of wave energy potential applying a numerical modelling downscaling methodology in central-east Tyrrhenian Sea
F. Paladini de Mendoza, F. M. Carli, S. Bonamano, M. Marcelli and M.A. Peviani

Assessing and modelling annual patterns in wave energy resources off Canary archipelago
G. R. Rodriguez

Assessment of extreme wave height events in Galway Bay using high frequency radar (CODAR) data
R. Atan, J. Goggins and S. Nash

Wave resource characterisation for energy production computations of WECs
R. Carballo, M. Sanchez; V. Ramos; A. Castro; F. Taveira and G. Iglesias
**Resource assessment - Wave & Current**

Characterising and investigating the interaction of waves and currents from ADCP field data
*A. Colucci, A. Bouferrouk and L. Johanning*

Recent developments in wave-current interaction and sediment impact studies at a planned tidal-stream array at the Skerries, UK

Combining Statistical and Dynamical Approaches in Resource Assessments of Ocean Wave, Ocean Current and Tidal Current Power
*T. Waseda, K. Kiyomatsu, A. Ribal, Y. Kidoura and R. Wada*

Practical considerations for the analysis of wave and current data from ADCP measurements during long term sea trials
*V. Hamois, A. Bouferrouk, B. Strong and L. Johanning*

**Resource assessment - Wind**

Spatial and Temporal Characteristics of Wind and Wind Power off the Coasts of Brittany
*A. Bentamy and D. Croize-Fillon*

Preliminary offshore wind resource assessment in the Strait of Gibraltar region from ASCAT data
*A. Agüera-Pérez, J. C. Palomares-Salas, J. J. González de la Rosa and J. M. Sierra-Fernández*

High resolution reanalysis data and floating met-mast measurements at deep water locations influenced by coastal topography.
*F. del Jesus, R. Guanche and I. J. Losada*

Evaluation of offshore wind potential for Western coast of India: a preliminary study
*G. Nagababu, D. Bavishi, S. S. Kachhwaha and V. Savsani*

Evaluation of present climate Offshore Wind Resource Potential over the Mediterranean basin by using Regional Climate Models
*I. Balog*

Feasibility study of Offshore Wind Power plant in Montenegro
*M. Vujačić and E. Šurilić.*

Offshore Wind energy assessment for the Iberian coast
*N. Salvação and C. Guedes Soares*

An operational wind forecast system for the Portuguese pilot area of Aguçadoura
*N. Salvação and C. Guedes Soares*

*S. Petersen, A. Sarmento and C Godreau.*

**Tidal Energy**

Experimental investigation of the wake of an horizontal axis tidal current turbine
*B. Morandi, G.P. Romano, D. Dhomé, J.C. Allo, M. Costanzo and F. Di Felice*

The Effect of Axial Flow Misalignment on Tidal Turbine Performance.
*C. H. Frost, P.S. Evans, T. O’Doherty and D.M. O’Doherty*

Tidal current energy resource assessment technique and procedure applied in western coastal region, South Korea

Methodologies for Tidal Energies Converters evaluation on early project phases
L. R. Nuñez Rivas, A. Lopez Pinero, J. A. Somolios Sanchez, F. Robledo de Miguel and M. Espin Garcia

Harnessing tidal currents in an estuary: a comparative impact assessment between different turbine configurations
M. Sanchez, R. Carballo, V. Ramos and G. Iglesias

Numerical investigation of bare and ducted horizontal axis marine current turbines
M. Ait-Mohammed, M. Tarfaoui and J.-M. Laurens

Modelling the hydro-environmental impacts of tidal farms with the use of a two-way nested model
N. O’Brien, S. Nash, and M. Hartnett

Analytic models and Power extraction limits for tidal turbine fences
R. H. J. Wilden

Experimental Investigation of the Wake Characteristics of the Momentum Reversal Lift Turbine
S. Ordonez-Sanchez, G. Payne, T. Bruce, M. Gebreslassie, M. Belmont, G. Tabor and M. Berry

Impact of Tidal turbine support structures on tidal farm power
S. Muchala and R. H. J. Wilden

An Experimental Investigation of Blockage in a Short Fence Array of Tidal Turbines
S. Cooke, R. H.J. Wilden and B. W. Byrne

Evaluation of Wake Models for Predicting Load on Tidal Stream Turbines within Arrays
T. Stallard, T. Feng and P. Stansby

Development of An Optimal Approach from hydrofoil to Blade for A Horizontal Axis Marine Current Turbine
W. Yu, L. Yu, W. Du and Y. He

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The extensive R&D behind the Weptos WEC
A. Pecher, J.P. Kofoed and T. Larsen

Finite order approximations to hydrodynamic parameters for wave energy applications.
A. Roessling and J. Ringwood

Novel bi-directional mixed-flow air-turbine for wave energy conversion
C. Moisel and T.H. Carolus

Experimental study on operation performance of wave pressure pump
C. Yang and Y. Zhang

Application of sub-optimal techniques to a gyroscopic Wave Energy Converter
G. Bracco, E. Giorcelli, M. Martini, G. Mattiazzo, B. Passione, M. Raffero and G. Vissio

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G. Bracco, E. Giorcelli, G. Mattiazzo, B. Passione, M. Raffero and G. Vissio

Comparative analysis of two offshore wave energy conversion devices: Cape Verde vs. Flexible Drive Line designs
J. V. Taboada, H. G. Lemu and J. A. Perez

Use of Concrete as the Primary Construction Material for the Pelamis Wave Energy Convertor
M. Newlands, N. Khosravi, J. Benzie and R. Jones

Broad band wave energy conversion with high capture width by the three-float line absorber M4 with multi-mode resonance and surge
P. Stansby, E. Carpintero Moreno, T. Stallard, A. Maggi and R. Eatock Taylor
Harnessing the kinetic and potential wave energy: design and development of a new wave energy converter
P. Rosa-Santos, F. Taveira-Pinto and J. Ribeiro

An example of a coupling strategy for ocean energy farms using the wave propagation model, MILDwave
V. Stratigaki, P. Troch, P. Rauwoens and M. Vantorre

Numerical Wave Tank Identification of Nonlinear Discrete Time Hydrodynamic Models
S. Giorgi and J. V. Ringwood

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CFD Study of the Overtopping Discharge of the Wave Dragon Wave Energy Device
C. Eskilsson, J. Palm, J. P. Kofod and E. Friis-Madsen

Development of overtopping-type wave power generate equipment
M. Minami and H. Tanaka

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The First Full-Scale Rewec3 Break Waters for Wave Energy Harvesting in the Mediterranean Sea
F. Arena, G. Malara and A. Romolo

A Small scale field experiment to analyze a U-OWC wave energy converter in real seas
F. Arena, G. Malara, A. Romolo, V. Fiamma, V. Laface, F. Strati and G. Barbaro

Optimal Configuration of U-Owc Wave Energy Converters.
F. Arena, V. Laface, G. Malara and F. Strati

An Experimental and Numerical Analysis of an I-Beam Attenuator-Type, Oscillating Water Column Wave Energy Converter
H. B. Bingham, K. Nielsen and D. Ducasse

Experimentally calibrated simplified time-domain model for a multi-chamber OWC
A. Iturrioz, J. Sarmiento, J. A. Armesto, R. Guanche, C. Vidal and I. J. Losada

Performance assessment of an oscillating water column spar-buoy for oceanographic purposes.

Theoretical and experimental investigation on causal latching and rotational speed control of an OWC spar-buoy wave energy converter

Testing of a small-scale model of a heaving floating OWC in a wave flume and comparison with numerical results.
R.P.F. Gomes, J.C.C. Henriques, L.M.C. Gato and A.F.O. Falcão

3D Numerical modelling of Oscillating Water Column wave energy conversion devices: current knowledge and OpenFOAM® implementation
I. Simonetti, L. Cappietti, H. El Safti and H. Oumeraci

Hydrodynamics of OWC wave energy converters
W. Sheng, R. Alcorn and T. Lewis

Effect of spectral shape uncertainty in short term performance of a Oscillating Water Column device
K. Rezanejad and C. Guedes Soares

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A. Sinha, D. Karmakar and C. Guedes Soares.
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C. Windt, P. Schmitt and J. Nicholson

Validating numerically generated wave excitation force vectors through the physical testing of a 40th scale oscillating wave surge converter
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The Hydrodynamics of Monopile Foundations - Experimental Measurements of Near Bed and Free Stream Turbulence
C. Rogan, J. Miles, D. Simmonds and G. Iglesias

The GICON-TLP for wind turbines – The path of development
F. Adam, F. Dahlhaus and J. Grossmann

Dynamic Monitoring of wind turbines: case studies on- and off-shore
G. Oliveira, W. Weijtjens, G. de Sitter, F. Magalhães, I. Cunha, E. Caetano and C. Devriendt

Joint Earthquake and Ocean Wave Action on the Monopile Wind Turbine Foundation: An Experimental Study.
H. Li, W. Rong, X. Zheng and W. Li

Analysis and Initialization of GE Wind Turbine Control Model
J. O. M. Kusljugic, D. Toal and E. Becirovic

The Influence of Support Structure Dynamics on the Energy Yield Characteristics of Floating Turbines
K. Cuschieri, T. Sant and R. N. Farrugia

Viability of a grid-connected wind/super-capacitor/battery hybrid energy system for domestic electricity generation in Nigeria
M. S. Okundamiya, J. O. Emagbetere and E. A. Ogjur

Motion effects on lidar wind measurement data of the EOLOS buoy
O. Bischoff, I. Wuerth, J. Tiana Alsina, M. Gutierrez and P. W. Cheng

Wind farm control by dynamic power set-point adjustment to maximise power production and redistribute fatigue loads
S. Poushpas and W. E. Leithead

Towing tests for the GICON®-TLP for offshore wind turbines
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Conceptual Design and advanced hydro-aero-elastic modelling of a TLP concept for Floating Wind Turbine applications
T. Mazarakos, D. Manolas, T. Grapsas, S. Mavrakos, V. Riziotis and S. Voutsinas

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Y. Debruyne, M. Alves and A. Sarmento

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Z. Puyang, D. Hongyan and L. Conghuan.

Numerical simulation of aerodynamic performance for three dimensional wind turbine
S. Tarbit and C. Guedes Soares

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G. Fernandes, M. Make, S. Gueydon and G. Vaz

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H. Chen

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M. Sayed, T. Lutz and E. Krämer

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A. Rivier, A. C. Bennis, V. Magar, G. Pinon and M. Gross

Laboratory simulation of resonance amplification of the hydrodynamic fields in the vicinity of wind farm masts
H. Gunnoo, N. Abcha, D. Mouazé and A. Ezersky

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J. George, A. Sarmento and C. Godreau.

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U. Ramayan, R. Panneer Selvam and N. Srinivasan

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Safeguarding the Pathway to Cost Competitive Tidal Energy
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L. Castro-Santos, E. Martins and C. Guedes Soares