

[En	ergy Conre	Tuesday September 5		
00-09:00					Registration (Main Hall)		
		Room /Track	Chairman	Paper ID 138	Title Analysis of Mutriku's OWC performance	Presenter Isabel Casas	
		Rarolal	: Diego Vicinanza	144 266	Successful innovation strategies to overcome the technical challenges in the development of wave energy technologies Spatial focussing of wave energy for improved power capture by an oscillating water column	Pablo Ruiz-Minguela Robert Mayon	
		Baroja/ Wave device development and testing		352	Relevance of Robustness and Uncertainties Analysis in the Optimal Design of Wave Energy Converters	Filippo Gioroelli	
				176 466	Tuning Wave Energy Converters to local wave conditions Enabling the Ocean Internet of Things with Renewable Marine Energy	Wilson Guachamin-Acero Mathew Topper	
	Oral presentations	Laboa/ Tidal device development and testing	Stephanie Ordońez-Sanchez	166	Intracycle Active Blade Pitch Control for Cross-Flow Tidal Turbines Using Embedded Electric Drive Systems	Zhao Zhao	
				209	Numerical optimisation of the active lift turbines using OpenFoam's overset method Non-dimensional scaling of passive adaptive blades for a marine current turbine	llan Robin Katherine Van Ness	
				264	Optimal Design of a Submerged Tidal Device for Low Current Environment	Seoung-won Jeong	
				343 617	Designing Vortex Generators for Tidal Turbine Blades Leveraging Explainable Artificial Intelligence for Real-time Detection of Tidal Blade Damage	George Papadakis Muslim Jameel Syed	
)-10:30				317	Verification and validation of MoodyMarine - A free simulation tool for modeling moored MRE devices	Johannes Palm	
		Arriaga/ Wave hydrodynamic modelling	Gareth Tomas	321 476	A hybrid linear potential flow - mathine learning model for enhanced prediction of WEC performance Design Waive analysis of the IM wave energy converter device	Claes Eskilsson Cristine Lynggard Hansen	
				497	Hydrodynamic studies of a 15 MW semi-submersible FOWT to assess the suitability of the inclusion of a damper system. On the state of the art of CFD simulations for view energy conventes within the open-source numerical framework of	Yu Gao	
				145 158	On the state-of-the-art of OFD simulations for wave energy convertiers within the open-source numerical framework of Duals Physics A Study on Wave Energy Conversion Problem of Turbine Interrated OWO Chamber	Alejandro Crespo	
				503	Large-eddy simulations of interaction between surface waves and a tidal turbine wake in a turbulent channel	Tim Stallard	
		Oteiza/Tidal hydrodynamic modelling	Tim O'Doherty	195 218	Actuator-Line CFD Simulation of Tidal-Stream Turbines in a Compact Array High-fidelity modeling of a vertical axis tidal turbine model under realistic flow conditions	David Apsley	
				307	Synthetic eddy generation and modelling of turbine operation in a turbulent tidal flow	Mikaël Grondeau Matteo Gregori	
				334 367	Impact of lateral turbine spacing on the performance of a multi-rotor tidal energy device A study on tidal rotors under the combined effects of currents and waves using actuator-line CFD simulations	Rachael Smith Federico Zilic de Arcos	
30-11:00				reshments	, networking & posters exhibition (Terrace and Chillida room)		
		Room /Track	Chairman	Paper ID 167	Title Experimental evaluation of phase and velocity control for a cyclorotor wave energy converter	Presenter Andrei Ermakov	
			: Claes Eskilsson	169	Mave Energy Power Take-off Validation with a Hydraulicly Actuated Rotary Dynamometer and a Bi-directional High-power DC Supply: Methods for validating wave energy converters' mechanical and electrical power conversion systems	Casey Nichols	
		Baroja/ Wave device development and testing		212 293	A Removable elevated-hinge wave generator for testing marine energy devices Wave energy converter power take-off characterization: comparing dynamometer and field data	Pedro Lomonaco Curtis Rusch	
	Oral presentations			448	Limiting the available pneumatic power in a U-OWC	Joso Henriques	
				499 285	HAPIGYM: Two Rapid Prototyping Environments for Wave Energy Control A methodology for developing a prediction model for the remaining fatigue life and residual strength of tidal turbine blades	Alexandra Price Tenis Ranjan Munaweera Thanthirige	
		Laboa/ Tidal device development and testing	Alberto Peña	177	Multi-Actuator Full-Scale Fatigue Test of a Tidal Blade	Sergio Lopez Dubon Aidan Hunt	
				203 277	Experimental techniques for evaluating the performance of high-blockage cross-flow turbine arrays Observations from structural testing of full-scale tidal turbine blades	Aidan Hunt William Finnegan	
				322	Experimental flow conditions effects on a bottom-mounted ducted twin vertical axis tidal turbine compared to real sea conditions. Experimental comparison of the flow-induced loading between a ducted bottom-mounted twin vertical axis tidal turbine at still and	Martin Moreau	
00-12:30				498 496	an unducted prototyce Dynamic Simulation of Wave Point Absorbers Connected to a Central Floating Platform	Saouli Thiago Saksanian Hallak	
		Arriaga/ Wave hydrodynamic modelling	Markel Peñalba	628	Hydrodynamic and Static Stability Analysis of a Hybrid Offshore Wind-Wave Energy Generation: An Expansion of Semisubmersible Floating Wind Turbine Concept	Payam Aboutalebi Claudio Sandoval	
				626 383	Study with Large Eddy Simulations of energy dissipation due to backwash flows in wave overtopping Nonlinear WEC modeling using Spasse Identification of Nonlinear Dynamics (SINDy)	Brittany Lydon	
				392 460	Numerical and Experimental Characterization of Rotational Finating Body Drag A development and validation of the In-house hydrodynamics code and the DNN software for TALOS wave energy convenier.	Bryson Robertson Wanan Sheng	
		Oteiza/Tidal hydrodynamic modelling	Gustavo Esteban	460 416	A turbines-module adapted to the marine site for tidal farms layout optimization	Wanan Sheng Mikol Pucci	
				442 454	High-lifelity modelling of a six-turbine tidal array in the Shetlands Instabilities in itidal turbine wakes	Pablo Ouro	
				454 505	Instabilities in tidal turbine wakes On the accuracy of BEMT and CFD on the power and trust prediction of tidal turbines	Amanda Smyth Yabin Liu	
				506 544	The performance of counter-rotating tidal turbine in different sea states	Song Fu	
ŀ				544	Comparison of Actuator Line Modelling of Tidal Power Kites with ADCP Measurements	Nomal Prabahar	
30-14:00					Lunch & posters exhibition (Terrace and Chillida room)		
		Room /Track	Chairman	Paper ID	Title	Presenter	
	Oral presentations	Baroja/ Wave device development and testing	Yago Torre-Enciso	242 185	Experimental Investigation into the Air Compressibility Scaling Effect on OWC Performance and Wave Height Enhancing the efficiency of an axial impulse turbine with a diffuser	André F.L. Governo Geetam Saha	
				260	Numerical performance assessment of a new wave energy conversion system	André F. L. Governo	
				522 451	Basin testing of the 1-2-1 M4 WEC Experimental Investigation on Performance of Counterrotating Impulse Turbine with Middle Vanes for Wave Energy Conversion	Damon Howe Kichiro Suto	
				268	Design of an integrated generator and heaving buoy	Nick Baker	
		Laboa/ Tidal device development and testing	Daniel Coles	343 366	Designing Vortex Generators for Tidal Turbine Blades A two-scale blockage correction for an array of tidal turbines	Marinos Manolesos Daniel Dehtyriov	
				365	Performance Assessment of a Multi-Rotor Floating Tidal Energy System	Nicholas Kaufmann	
				391 420	The Influence of the Downstream Blade Sweep on Cross-flow Turbine Performance Additive Manufacturing for Powering the Blue Economy Applications: A Tidal Turbine Blade Case Study	Abigale Snortland Miguel Gonzalez-Montijo	
00-15:30				504	Design and Demonstration of a Passive Pitch System for Tidal Turbines	Stefano Gambuzza	
		Arriaga/ Wave hydrodynamic modelling		164 513	Wave Amplification Inside an Open Circular Calason for Wave Energy Conversion in Waters with Medium Energy Density System Identification for Modelling MI Wave Energy Converter	Jiahn-Homg Chen Xuefei Wang	
			Sara Russo Abußakr Bahaj	198	Semi-analysical and CFD formulations of a spherical floater	Spyridon Zafeiris	
				278 333	Spectral Domain Modeling of Wave Energy Converters as an Efficient Tool for Adjustment of PTO Model Parameters A multipuery analysis of a PeWEC farm	Jian Tan Beatrice Battisti	
				538	Effects of control strategies on the performance of floating WEC point absorbers operating attached to a breakwater by time-domain	Markos Bonovas	
		Oteiza/Tidal hydrodynamic modelling		579 676	Experimantal characterisation of the wake of a bottom-mounted two tandem of cylinders placed in a high velocity area Development of a modified BEMT model for the analysis of helical bladed vertical axis stdat turbines	Alina Santa Cruz Mohammad Fereidoonnezhad	
				199	A comparative study of power production using a generic empirical model in a tidal farm	Kabir Bashir Shariff	
				252 283	Objective Functions for the Blade Shape Optimisation of a Cross-Flow Tidal Turbine under Constraints Investigating the impact of multi-votor structure shadowing on tidal stream turbine performance	Karla Ruiz-Hussmann	
15:30-16:00				501	A methodology to capture the single blade loads on a cross-flow tidal turbine flume model	Bryn Townley Stefan Hoerner	
30-16:00			Ref	reshments	, networking & posters exhibition (Terrace and Chillida room)		
		Mitxelena/Side event 4		SafeWAVE project (by AZTI / WavEC)			
00-17:30	Side events	Baroja/Side event 5			Technology Performance Level Assessment (TPL) (by SANDIA LABTPL TEAM-)		
		Arriaga/Side event 6	NEMMO Project, On the Cutting Edge of Tidal Blade Design and Materials (by Ocean Energy Europe)				
ľ		Room /Track Baroja/ Wave device development and testing	Chairman Luis Gato	Paper ID	Title	Presenter Sara Russo	
	Oral presentations			318 329	A Novel Hybrid Floating Breakwater-Wave Energy Converter Device: Preliminary Experimental Investigations Origans-adapted claim design for wave energy conversion	Sara Russo Jingyi Yang	
				555	The Geometrical Design of the L-shaped Oscillating Water Column Using Artificial Neural Network	Chen-Chou Lin	
				274 516	Maximizing the surge amplitude of a floater through an adaptable mooring lightening technique Reliability and Cost Assessment of Critical Components: Electrical generator failure of IDOM wave energy converter	Andreas Asiikkis Julia Fernandez Chozas	
		Arriaga/ Wave hydrodynamic	Jesús M. Blanco	286	Heterogeneous WEC array optimization using the Hidden Genes Genetic Algorithm	Habeebullah Abdulkadir	
				355 376	Numerical investigation of a new hybrid floating wind turbine concept Quantification of uncertainty in linear wave energy hydrodynamic models from experimental data	Beatrice Fenu Mahdiyeh Farajvand	
30-19:00				379	An overview of an experimental campaign for arrays of wave energy conversion systems	Nicolas Faedo	
		modelling		426 473	Solution vertication of WECs: comparison of methods to estimate numerical uncertainties in the OES wave energy modelling task. HydroChrono: An Open-Source Hydrodynamics Package for Project Chrono	Claes Eskilsson David Ogden	
		Oteiza/ Tidal hydrodynamic	Pablo Ruiz-Minguela	474	Nonlinear hydrodynamics of a heaving sphere in diffraction, radiation, and combined tests	Jana Orszaghova	
				407 464	Modelling the effects of boundary proximity on a tidal notor using the actuator line method. Characterisation of turbulent flow and the wake of a tidal stream turbine in proximity to a ridge.	Huw Eduards Sulaiman Hurubi	
				566	Tidal turbulence in medium depth water, primarily a model study	Göran Broström	
		modelling		316 544	Verification and validation of blade-resolved viscous-flow tidal furbine simulations Comparison of Actuator Line Modelling of Tidal Power Kites with ADCP Measurements	Manuel Rentschler Nomal Prabahar	
ļ	Technical					A STATE OF THE STA	
00-20:00	programme	Elhuyar			Technical Committee meeting		
0-22:00	Social				Track Directors Dinner		
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