

	Auditorium		
09h00 - 10h40	Session title: Opening Session		
	Chair: Luís Gato, Chair EWTEC 2025		
	Welcome Address	Luís Gato	
	Marine Energy Policy in Madeira	Pedro Rodrigues, Secretário Regional dos Equipamentos e Infraestruturas, Madeira	
	Lessons from Wind Energy Applicable to the Marine Energy Sector	Andrew Garrad, Co-founder of the wind power industry consulting company Garrad Hassan	
	Break: 20 minutes		
	Auditorium		
11h00 - 12h40	Plenary Session		
	Chair: Tony Lewis, Cork University		
	Paper Title: [958] Results and Lessons Learned from CorPower Ocean’s Full Scale C4 Wave Energy Converter First Ocean Deployment Period	Shona Pennock; Matt Dickson; Kevin Rebenius; Jørgen Hals Todalshaug	CorPower Ocean
	Paper Title: [1022] Assessing the Influence of the Planned Future Energy Mix on the Revenues of Offshore Energy Parks Acting on the Electricity Market in 2030	Alva Bechlenberg; Anton B. Schaap; Hinne F. van der Zant; Simon J. Stark	Dutch Marine Energy Centre
	Paper Title: [1030] Ocean Wave Energy in Australia	Beth Fulton ¹ ; Christophe Gaudin ² ; Irene Penesis ³ ; Tom Denniss ⁴ ; Brighid Jay ⁵ ; Chris Frid ⁶ ; Jess Melbourne-Thomas ¹ ; Alaya Spencer-Cotton ² ; Philip Marsh ⁷ ; Kate Sprogis ² ; Rowan Trebilco ¹ ; Larelle Bossi ⁸ ; Hugh Wolgamot ² ; Pethie Lyons ¹ ; Charles Sampford ⁸ ; Hugh Breakey ⁸ ; Nataliia Sergiienko ⁹ ; Peter Osman ¹ ; Richard Manasseh ¹⁰ ; Kathleen McInnes ¹	(1) CSIRO; (2) University of Western Australia; (3) BE CRC; (4) Wave Swell Energy Ltd; (5) Carnegie Clean Energy; (6) Griffith University; (7) University of Tasmania; (8) Griffith University; (9) University of Adelaide; CSIRO; (10) Swinburne University of Technology
	Paper Title: [1202] The IEA-OES Framework: Contribution to Policy and Technology Development	Ana Brito e Melo; Henry Jeffrey; Jonathan Hodges; Andrea Copping; Purnima Jalihal; Kim Nielsen; Narasimalu Srikanth; Matthijs Soede	IEA-OES
	Tribute to Professor Falnes	Jørgen Hals Todalshaug	CorPower Ocean
12h30 - 14h00	Lunch		

14h00 - 15h40

Room 1		
Session title: Wave hydrodynamic modelling 1		
Chair: Gareth Thomas, University College Cork		

Paper Title: [700] Additional features in HAMS-MREL: A new open-source BIEM solver for offshore energy applications	Vaibhav Raghavan; Andrei Metrikine; George Lavidas	Delft University of Technology
Paper Title: [704] Development of a Digital Twin for the Mutriku Oscillating Water Column Plant	Cristina Casal Escaloni ¹ ; Álvaro Rodríguez Luis ¹ ; Sergio Fernández Ruano ¹ ; Raúl Guanche García ¹ ; Jon Lekube ² ; Endika Aldaiturriaga ³	(1) IHCantabria; (2) BiMEP; (3) EVE
Paper Title: [716] Ocean Wave Energy Converter Mid-Fidelity Numerical Simulation Tools: A Review	Thomas Hogan; Kush Bubbar	University of New Brunswick
Paper Title: [722] Hydrodynamic Response and Energy Conversion Characteristics of the Net-Cage-Integrated Self-Sustaining Pendulum Wave Energy Converter	Can Yang ¹ ; An Hu ¹ ; Liangyu Shen ¹ ; Hailong Chen ¹ ; Lars Johanning ²	(1) Harbin Engineering University; (2) University of Plymouth

Break 20 minutes

16h00 - 17h40

Session title: Wave hydrodynamic modelling 2		
Chair: Jørgen Hals Todalshaug, Norwegian University of Science and Technology		
Paper Title: [699] Exploring the hydrodynamics of Mixed Wave Energy farms	Vaibhav Raghavan; Andrei Metrikine; George Lavidas	Delft University of Technology
Paper Title: [725] Validation of Capytaine for Single-Body Hydrodynamic Modelling Using the SWELL Experimental Dataset	Andreas Asiikkis ¹ ; Dimokratis Grigoriadis ² ; Antonis Vakis ¹	(1) University of Groningen; (2) University of Cyprus
Paper Title: [746] A data-driven approach leveraging multi-fidelity datasets for modeling arrays of wave energy converters	Charitini Stavropoulou ¹ ; Nicolás Faedo ² ; Malin Göteman ³	(1) Uppsala University; (2) Politecnico di Torino; (3) Uppsala University
Paper Title: [764] An experimental study of the forces on vertical cylinders for an offshore floating photovoltaic energy structure	Oier Peña Vega; Urko Izquierdo Ereño; Iñigo Albaina Lopez de Armentia; Gustavo Adolfo Esteban Alcalá; Iñigo Bidaguren Diego; Iñigo Mendikoa Alonso; Maxim Finenko; Jesús Maria Blanco Ilzarbe	UPV / EHU
Side Events		
CorPower Ocean WEC fundamentals and research challenges - a developers perspective		

17h45 - 19h15

14h00 - 15h40	Room 2		
	Session title: Wave resource characterization 1		
	Chair: Diego Vicinanza, Università degli Studi della Campania “Luigi Vanvitelli”		
	Paper Title: [765] Automated WEC Metocean design basis from ResourceCode data.	Remy Pascal ¹ ; Bernardo Kahn ² ; Maxime Chenimeau ³	(1) OWC Uk; (2) INNOSEA; (3) OWC
	Paper Title: [811] Assessing the Impact of Storms on Offshore ScotWind Assets: An Analysis of Frequency and Intensity Trends Across Scotland’s Growing Renewable Frontier	John-Luke McWhirter; Bahareh Kamranzad; Paul Evans; Matt Lewis	University of Strathclyde
	Paper Title: [903] Advancing Wave Resource Assessment: The Mutriku OWC Case Study – MAR+ Project	Eva Romano-Moreno ¹ ; Cristina Casal ¹ ; Antonio Tomás ¹ ; Gabriel Díaz-Hernández ¹ ; Raul Guanche ¹ ; Jon Lekube ² ; Endika Aldaiturriaga ³ ; Laura Zubiate ² ; Yago Torre-Enciso ²	(1) IHCantabria; (2) BiMEP - Biscay Marine Energy Platform; (3) EVE - Ente Vasco de la Energía
	Paper Title: [956] Wave Energy Resource and Complementarity with Wind and Solar for Madeira – Calculating the Optimal 100% Renewable Mix	Shona Pennock; Luis Barreno Suarez; Kevin Rebenius; Matt Dickson	CorPower Ocean
	Break 20 minutes		
	Session title: Supply chain, economic, social, legal and political aspects of ocean energy		
	Chair: Juan Portillo, LNEG - Laboratório Nacional de Energia e Geologia		
16h00 - 17h40	Paper Title: [762] Techno-economic evaluation of high-TRL WECs in European Nearshore Areas	Manuel Alejandro Corrales González; Emiliano Gorr-Pozzi; Giuseppe Giorgi	Marine Offshore Renewable Energy Lab (MOREnergyLab), Politecnico di Torino
	Paper Title: [788] The socio-economic benefits of tidal power to the European economy	Donald Noble; Kristofer Grattan; Henry Jeffrey	University of Edinburgh
	Paper Title: [883] The role of patenting in emerging renewable energy technologies: the case of wave energy technology development	Carrie Anne Barry; Peter Conlon; Alba Tavares; John Ringwood	Centre for Ocean Energy Research, Maynooth University
	Paper Title: [897] Evaluating the Cost and Schedule Risk of Tidal Energy Projects	Mike Bartlett ¹ ; David Kerr ²	(1) Oxford Global Projects; (2) West Somerset Lagoon Ltd
	Paper Title: [1008] Development of a Supply Chain Competitiveness Framework to Support the European Ocean Energy Sector	Kristofer Grattan; Donald Noble; Henry Jeffrey	University of Edinburgh
17h45 - 19h15	Side Events		
	University of Oxford (CoTide/Supergen tidal benchmarking)		

14h00 - 15h40	Room 3		
	Session title: Tidal resource characterization 1		
	Chair: Cameron Johnstone, University of Strathclyde		
	Paper Title: [705] Remote Sensing Applications in Tidal Current Hotspot Mapping	Hellen Dianne Pereira de Souza ¹ ; Hugo Rocha Mendonça ² ; Shigeaki Leite de Lima ¹	Universidade Federal do Maranhão; Universidad Politécnica de Madrid
	Paper Title: [838] Prediction of tidal currents in the Inner Sound of the Pentland Firth using RTide	Thomas Monahan ¹ ; Tianning Tang ² ; Stephen Roberts ¹ ; Thomas Adcock ¹	(1) University of Oxford; (2) University of Manchester
	Paper Title: [845] Towards parametrized modeling of the current vertical structure during extreme events: application to Alderney Race.	Martin Goix ¹ ; Anne-Claire Bennis ¹ ; Musiedlak Pierre-Henri ²	(1) Université de Caen Normandie; (2) HydroQuest
16h00 - 17h40	Paper Title: [870] Hydrokinetic Energy Potential in Southern Patagonia: Le Maire Strait site	Lucas Bindelli ¹ ; Mariano Re ² ; Marina Sarti ² ; Anne-Claire Bennis ³	(1) Universidad de Buenos Aires; (2) Instituto Nacional del Agua; Instituto Nacional del Agua, Argentina; (3) University of Caen Normandy
	Paper Title: [931] Quantifying the regional blockage effects of tidal arrays within multi-scale channel network models	Emils Brazovskis; Athanasios Angeloudis; Lindsay Beevers	University of Edinburgh
	Break 20 minutes		
	Session title: Structural mechanics: materials, fatigue, loadings 1		
	Chair: Sergio Lopez Dubon, The University of Edinburgh		
	Paper Title: [723] A Helical Magnetic Torsion Spring for an Ocean Observation Buoy Wave Energy Converter	Jonathan Bird; Colton Bruce; Bert Dechant; Weston Baker; David Gibson; Alex Goglin; Sean Sevier	FluxMagic, Inc.
17h45 - 19h15	Paper Title: [757] Numerical Simulation of Adhesive-Free Glass Fibre Hydrofoil Structural Demonstrators under Flexural Bending	Yadong Jiang ¹ ; Conor Kelly ² ; Diarmuid Flatharta ² ; Omid Sam-Daliri ¹ ; Tomas Flanagan ² ; Jamie Goggins ¹ ; William Finnegan ¹	(1) University of Galway; (2) ÉireComposites Teo
	Paper Title: [812] Advancements in Structural Testing and Life Predictions of Tidal Turbine Blades	Tenis Ranjan Munaweera Thanthirige; Michael Flanagan; Ciaran Kennedy; Jamie Goggins; William Finnegan	University of Galway
	Paper Title: [815] Vortex Induced Strain of a Dynamic Power Cable in Lazy Wave Configuration under waves and currents	Venki Venugopal; Rameeza Moideen	University of Edinburgh
	Paper Title: [924] Immersed composite materials testing for tidal turbines	Edward Fagan ¹ ; Michael Walls ² ; Michael Flanagan ³ ; Clement Courade ⁴ ; Jeffwin George ³ ; Patrick Cronin ²	(1) Zero Nexus; (2) CTL Teo.; (3) University of Galway; (4) ORPC Ireland
17h45 - 19h15	Side Events		
	NREL (SEA-Stack)		

14h00 - 15h40

Room 4

Session title: Tidal hydrodynamic modelling 1

Chair: Francesco Salvatore, Institute of Marine Engineering, National Research Council of Italy

Paper Title: [737] Tidal resource modelling of Hestfjord in the Faroe Islands

Paul Evans¹; Danny Coles²; Liz Comer-Foley²

(1) Intertek Metoc; (2) University of Oxford

Paper Title: [759] Controlling tip vortices and cavitation with a grooved-tip design for tidal turbines

Yabin Liu; Junchen Tan; Ignazio Maria Viola

University of Cambridge

Paper Title: [847] Impact of Hydrodynamic Loads-Induced Blade Deflections on Tidal Turbine Performance

Martina Lomele; Amanda S. M. Smyth; Xiaosheng Chen; Richard H. J. Willden

University of Oxford

Paper Title: [878] On the analysis of new sites for the future installation of floating tidal stream turbines

Stephanie Ordoñez-Sánchez

University of Strathclyde

Break: 20 minutes

16h00 - 17h40

Session title: Tidal hydrodynamic modelling 2

Chair: Abel Arredondo-Galeana, University of Strathclyde

Paper Title: [879] Benchmarking machine learning models for predicting aerofoil performance

Oliver Summerell¹; Gerardo Aragon-Camarasa¹; Stephanie Ordonez-Sanchez²

(1) University of Glasgow; (2) University of Strathclyde

Paper Title: [891] Combined optimization of the blade shape and operating point of a cross-flow tidal turbine for increased performance and reduced fatigue loadings

Karla Ruiz-Husmann^{1,2}; Pierre-Luc Delafin¹; Cyrille Bonamy¹; Yves Delannoy¹; Stefan Hoerner^{1,2}; Dominique Thévenin²

(1) Univ. Grenoble-Alpes; (2) Otto-von-Guericke University Magdeburg

Paper Title: [900] A Parametric Analysis of Wave Effects on a Hydrokinetic Turbine Using Computational Fluid Dynamics

Yavar Mohammadi; Bradford Knight

University of Rhode Island

Paper Title: [1046] Enabling dynamic positioning of floating tidal turbines in open regional-scale 3D hydrodynamic model

Raymond Lam; Chris Old; Brian Sellar

University of Edinburgh

09h00 - 10h40

Room 1

Session title: Wave hydrodynamic modelling 3

Chair: Harry Bingham, Technical University of Denmark

Paper Title: [781] Prediction of Hydrodynamic Coefficients of a Point Absorber Wave Energy Converter Using Artificial Neural Networks and Its Applications	Sanghwan Heo; Sanghun Lee; Hyunsik Son; WeonCheol Koo	Inha University
Paper Title: [786] Resolving the incompatibility of hydrodynamics calculations between popular BEM solvers	Salman Husain ¹ ; Iñaki Zabala Calvo ² ; David Ogden ³	(1) National Renewable Energy Laboratory; (2) Sener; (3) Simocean
Paper Title: [790] Data-driven modeling of nonlinear events for an oscillating surge WEC using Sparse Identification of Nonlinear Dynamics (SINDy)	Brittany Lydon; Steve Brunton; Ama Hartman; Greg Talpey; Corey Crisp; Gemma Calandra; Charles Candon; Rebecca Fao; Brian Polagye	University of Washington
Paper Title: [794] Nonlinear Hydrodynamic Forces and their Implications for Power Capture of Heaving Wave Energy Converters	Bryan Tan ¹ ; Jana Orszaghova ¹ ; Hugh Wolgamot ¹ ; Adi Kurniawan ¹ ; Jørgen Hals Todalshaug ²	(1) University of Western Australia; (2) CorPower Ocean
Paper Title: [1246] The Development of China’s National Marine Test Sites and Field Testing Technology	Hainan Xia	National Ocean Technology Center

11h00 - 12h40

Session title: Wave hydrodynamic modelling 4

Chair: Giovanni Malara, Mediterranea University of Reggio Calabria

Paper Title: [780] A Study on Optimal Layouts of Multiple Point-Absorber Wave Energy Converters Using Metaheuristic Algorithms	OnBin Lee; Sanghwan Heo; WeonCheol Koo	Inha University
Paper Title: [921] Piecewise data-driven modelling of the RM3 wave energy converter for multi-condition prediction	Thalita Nazare	Maynooth University
Paper Title: [922] Evaluating the applicability of linear hydrodynamics across float geometries for heaving point absorbers	Sarah Palmer; Sadie Kass; Curtis Rusch; Brittany Lydon; Brian Polagye	University of Washington
Paper Title: [955] Stabilisation of Floating Platforms By Pumping Between Columns	David Apsley; Peter Stansby	University of Manchester
Paper Title: [1000] Numerical analysis on the	Byung-Soo Kim; Yoon-Jin	KRISO – Korea Research

12h40 - 14h00

Lunch

14h00 - 15h40

Room 1		
Session title: Wave device development and testing 2		
Chair: Lars Johanning, University of Plymouth		
Paper Title: [715] Lobe-Tendon Anaconda: An evolution of the Anaconda concept	Anthony McDonald ¹ ; Mark Prentice ²	(1) Wave Venture; (2) Checkmate Sea Energy
Paper Title: [776] Detailed Uncertainty Analysis of a Point Absorber Wave Energy Converter Laboratory Test in Irregular Waves	Courtney Beringer; Bret Bosma; Bryson Robertson	Oregon State University
Paper Title: [821] Experimental characterization of the use of the wave energy convertor DIKWE as a breakwater reinforcement on the existing structure performances	Louise Desvignes ¹ ; A. Bousquet ¹ ; Grégoire Corre ¹ ; Gaspard Fourestier ² ; L. Gicquiau ² ; Paul Tournant ³ ; Gaële Perret ³	(1) GROUPE LEGENDRE; (2) GEPS TECHNO; (3) LOMC
Paper Title: [957] Experimental testing of a heterogeneous wave energy converter array	Somansundar Sakthivel; Jeffrey Johnston; Pal Schmitt	Queen's University Belfast
Paper Title: [1243] Enhancing the performance of a BBDB using sloshing tanks	Carolina Pereira ¹ ; João C. C. Henriques ¹ ; Iñaki Zabala ² ; Luís M. C. Gato ¹	(1) IDMEC, Instituto Superior Técnico, Universidade de Lisboa; (2) SENER Ingeniería y Sistemas, S.A.
Paper Title: [913] Research on real-sea performance evaluation method of OWC-type WEC by energy conversion stage	Kilwon Kim	KRISO, Korea
Break 20 minutes		
Session title: Wave device development and testing 3		
Chair: Tony Lewis, Cork University		
Paper Title: [706] Experimental Analysis of Flexible Oscillating Water Columns for Wave Energy Conversion	Paul Koola	PEAK LLC
Paper Title: [849] System Modeling and Power Optimization of a Point Absorber Wave Energy Converter	Weihan Lin; Jianuo Huang; Binh Truong; Lei Zuo	University of Michigan
Paper Title: [850] A multi-dimensional review on performance enhancement opportunities of next generation wave energy converters	Hirun Seneviratne ¹ ; Chaminda Karunasena ¹ ; Hadi Amlashi ²	(1) University of Ruhuna; (2) University of South-Eastern Norway
Paper Title: [855] Hydrodynamics of a dual-chamber OWC wave energy converter coupled with a parabolic coast/breakwater	Zhigao Wang; Xuanlie Zhao; Yu Zhou; Lixiao Jing	Harbin Engineering University
Paper Title: [856] Parametric Analysis and Methodology for Optimal Wave Energy Converter Array Design	Yifei Han; Zechuan Lin; Kemeng Chen; Xuanrui Huang; Xi Xiao; Xuanyi Zhu	Tsinghua University
Side Events		
University Plymouth (Supergen - wave energy)		

17h45 - 19h15

	Room 2		
09h00 - 10h40	Session title: Station-keeping, moorings and foundations 1		
	Chair: Johannes Palm, The University of Edinburgh		
	Paper Title: [703] Experimental Validation of a Real-Time Hybrid Mooring System for Wave Energy Systems Using a Linear Test Bed	Abilyn McConnell; Bryson Robertson; Bret Bosma	Oregon State University
	Paper Title: [724] The Use of a Structured Verification and Validation Strategy in the Development of the C-Dart Quick Connection Mooring System	Tim Warren	Blackfish Engineering Design Ltd
	Paper Title: [754] Numerical analysis of design variations in a longline aquaculture system under wave and current loads	Daniele Aromatario ¹ ; António Maximiano ¹ ; Riccardo Chini ¹ ; Thomas Goulding ² ; Guilherme Vaz ¹	(1) blueOASIS; (2) oceanofresco
11h00 - 12h40	Paper Title: [991] Design and Validation for OE35 mooring system	Chenyu Zhao; Lars Johanning	University of Plymouth
	Break 20 minutes		
	Session title: Marine spatial planning, environmental impact and appraisal 1		
	Chair: Lysel Garavelli, Pacific Northwest National Laboratory		
	Paper Title: [720] Understanding the exposure of marine life to electromagnetic fields generated by subsea cables	Valentina Caradonna ¹ ; Arianna Azzellino ² ; Andrew B. Gill ³ ; Peter Sigray ⁴ ; Diego Vicinanza ¹ ; Junio Fabrizio Borsani ⁵	(1) University of Campania "Luigi Vanvitelli"; (2) Politecnico di Milano; (3) Centre for Environment, Fisheries and Aquaculture Science, UK; (4) KTH, Royal Institute of Technology; (5) ISPRA, Rome
12h40 - 14h00	Paper Title: [743] Estimating nearshore wave energy converter impact on beach width using satellite data	James Thompson; Nick Cartwright; Amir Etemad-Shahidi; Guilherme Vieira da Silva	Griffith University
	Paper Title: [758] Monitoring fish communities in offshore renewable energy: the SafeWAVE case study	Pedro Almeida Vinagre ¹ ; Inês Machado ¹ ; Luana Clementino ¹ ; Miguel Amado ¹ ; Guillermo Boyra ² ; Ainhize Uriarte ² ; Beatriz Sobradillo ² ; Juan Bald ²	(1) WavEC Offshore Renewables; (2) AZTI
	Paper Title: [810] The Importance of Empirical Particle Motion Measurements for Monitoring Underwater Noise from Wave Energy Converters	Carola Chicco ¹ ; Francesco Niosi ¹ ; Giuseppa Buscaino ² ; Davide Issoglio ¹ ; Elena Papale ² ; Maria Ceraulo ² ; Giuseppe Giorgi ¹	(1) Politecnico di Torino; (2) CNR-IAS
	Paper Title: [831] Innovative rapid modelling for tidal range scenarios	Joshua Mitchell ¹ ; Anthony Chu ² ; Julia Race ³ ; David Ingram ¹ ; Ian Ashton ⁴	(1) University of Edinburgh; (2) The Crown Estate; (3) University of Strathclyde; (4) University of Exeter
	Lunch		

	Room 2		
14h00 - 15h40	Session title: Air turbines		
	Chair: Ana Carrelhas, Instituto Superior Técnico, Universidade de Lisboa		
	Paper Title: [731] Numerical Investigation of the Characteristics of Crossflow Air Turbine under Irregular Waves for Wave Energy Conversion	B.H.B.P.D. Baddegamage ¹ ; Seong Jong Bae ¹ ; S.D.G.S.P. Gunawardane ² ; Young-Ho Lee ¹ ; Min Yoon ¹	(1) Korea National Maritime and Ocean University;(2) Sri Lanka Institute of Information Technology
	Paper Title: [745] Effect of End Plates on the Performance of a Counter-rotating Impulse Turbine for Wave Energy Conversion	Shota Hakuishi	National Institute of Technology, Matsue College
	Paper Title: [798] Effect of Blade Angle on the Performance of Biradial Turbines for Oscillating Water Column Systems	Seong Jong Bae ¹ ; Pisindu Baddegamage ¹ ; Kilwon Kim ² ; Min Yoon ¹	(1) Korea Maritime and Ocean University; (2) Korea Research Institute of Ships & Ocean Engineering
	Paper Title: [857] Multiparametric optimization of the Middle Vanes of a counter-rotating axial impulse turbine for Oscillating Water Column devices	Aitor Vega-Valladares ¹ ; Manuel Garcia-Diaz ¹ ; Bruno Pereiras ¹ ; Manabu Takao ²	(1) University of Oviedo; (2) National Institute of Technology, Matsue College
16h00 - 17h40	Paper Title: [906] Design of an enhanced Wells turbine for a breakwater-integrated OWC device	João M. M. Heleno; Luís M. C. Gato; Ana A. D. Carrelhas	IDMEC, Instituto Superior Técnico, Universidade de Lisboa
	Break 20 minutes		
	Session title: Wave resource characterization 2		
	Chair: Rémy Pascal, OWC		
	Paper Title: [844] Wave energy harvesting potential of the BlackSea Basin: a resource feasibility	Sinan Eraslan ¹ ; İrem Yağmuroğlu ² ; Bárður Joensen ³	(1) Rize RTE University, Türkiye;/2) İstanbul University-Cerrahpaşa, Türkiye; (3) The University of the Faroe Islands
	Paper Title: [949] UNCERTAINTIES IN WAVE ENERGY POTENTIAL ESTIMATION: CASE STUDY AT MARELAB	Sara Russo ¹ ; Pasquale Contestabile ² ; Andrea Bardazzi ¹ ; Diego Vicinanza ² ; Claudio Lugni ³	(1) Institute of Marine Engineering, National Research Council of Italy; (2) University of Campania "Luigi Vanvitelli"; (3) University of Naples - Federico II
17h45 - 19h15	Paper Title: [969] Optimizing Design Load Case Reduction for Fatigue Assessment of Mooring Lines in Marine Renewable Energy Systems	Ander Martinez ¹ ; Eguzkiñe Martinez ¹ ; Iñigo Llavori ¹ ; Markel Peñalba ¹ ; José Gregorio Iglesias ²	(1) Mondragon University; (2) MAREI, University of Plymouth
	Paper Title: [988] Best sites for wave energy resources creating opportunities for low-cost e-fuel production	Rasul Satymov ¹ ; Dmitrii Bogdanov ¹ ; George Lavidas ² ; Shona Pennock ³ ; Sarah Kluge ⁴ ; Christian Breyer ¹ ; Benjamin Lehner ⁴	(1) LUT University; (2)TU Delft; (3) CorPower Ocean; (4) Dutch Marine Energy Centre
	Paper Title: [1192] Studies on Selection of Characteristic Sea State Conditions for Wave Energy Converters in Taiwan	Shiaw-Yih Tzang; S.-J. Lin; C.-E. Lin	National Taiwan Ocean University
17h45 - 19h15	Side Events		
	NREL (OpenFast)		

09h00 - 10h40

Room 3		
Session title: Wave device development and testing 1		
Chair: Peter Frigaard, Aalborg University		
Paper Title: [728] Development and Experimental Assessment of a 2 Degrees of Freedom Pendulum Wave Energy Converter	Giuseppe Giorgi; Mattia Glorioso; Mauro Bonfanti; Fabio Carapellese	Marine Offshore Renewable Energy Lab (MOREnergy Lab), Politecnico di Torino
Paper Title: [771] Hydrodynamic design and build of a direct drive heaving buoy wave energy converter.	Nick Baker; Serkan Turkment; Nese Halibese; Ehsan Farmahini Farahani	Newcastle University
Paper Title: [772] Control co-design for cyclorotor wave energy conversion	Ilias Stasinopoulos; Andrei Ermakov; John Ringwood	Maynooth University
Paper Title: [1027] The M4 Wave Energy Demonstration Project: Overview, impact and insight	Hugh Wolgamot ¹ ; Christophe Gaudin ¹ ; Peter Stansby ² ; Adi Kurniawan ¹ ; Wiebke Ebeling ¹ ; Irene Penesis ³	(1) University of Western Australia; (2) University of Manchester; (3) BE CRC
Paper Title: [1237] Flexible Responsive Systems in Wave Energy	Deborah Greaves; Tom Tosdevin; Alistair Borthwick; Jingyi Yang; Zhong You; Maozhou Meng; Siming Zheng; Martyn Hann; Pablo Borja; Shanshan Cheng; Xinyu Wang; Krishnendu Puzhukkil; Kai Zhu; Malcolm Cox; Kieran Monk; John Chaplin	University of Plymouth

11h00 - 12h40

Break 20 minutes		
Session title: Markets, financing, certification and standardization		
Chair: Ana Brito e Melo, WavEC		
Paper Title: [739] Wave energy in Energy Systems, the impact of high-fidelity datasets and a view for the future.	George Lavidas; Lefteris Mezilis	Delft University of Technology
Paper Title: [1054] Standards and Certification of Marine Energy Conversion Systems	Richard Williams ¹ ; Winston D'Souza ² ; Philip Beauchamp ³ ; Arielle Cardinal ⁴ ; Jonathan Colby ⁵ ; William Staby ⁶	(1) Portland State University and IEC TC114; (2) Lloyd's Register; (3) PB Mechanical Consulting Services, LLC; (4) National Renewable Energy Laboratory; (5) Streamwise Development, LLC; (6)Bluewater Network, LLC
Paper Title: [1058] PRIMRE: Providing Centralized Access to Marine Energy Data and Information	Cesar Castillo; Kelley Ruehl; Will Peplinski; Megan Anderson; Jon Weers; Jonathan Whiting; Hayley Farr; Andrea Copping; Dominick DeCanio; Lysel Garavelli; Hanna Fields; Sean Morris; Austin Venhuizen; Erika Curry-Elrod	Sandia National Laboratories
Paper Title: [1035] The role of technology standards in driving convergence for emerging technologies	Alba Tavares	MaREI
Paper Title: [980] Practical application of technical qualification of innovative wave and tidal designs	N. J. C. Fozein Kwanke; Ludolf Pijpker	Bilfinger Engineering
Lunch		

12h40- 14h00

14h00 - 15h40

Room 3		
Session title: Co-location, hybridization and synergies in the Blue Economy 1		
Chair: Juan Portillo, LNEG - Laboratório Nacional de Energia e Geologia		
Paper Title: [711] Surge and pitch motion effects on aerodynamic performance of a spar floating offshore wind turbine under wave-wind loading	Naghmeh Akbari zadeh; Peter Ryan; Fergal O'Rourke	Dundalk Institute of Technology, Ireland
Paper Title: [750] Enhancing offshore hybridization via storage: Technical and safety consideration in Blue Economy projects	Elise Nanini-Maury ¹ ; Aurore Castets ¹ ; Lionel Nadau ² ; Dominique Corbisier ¹	(1) ENGIE LABORELEC; (2) ENGIE CRIGEN
Paper Title: [827] Life Cycle Assessment of co-located floating offshore wind and wave energy technologies in Portugal	Paula Bastos; Christian Breyer; Sarah Kluge; Shona Pennock; Tugce Demirsoz; Luis Amaral; Francsisco Correia da Fonseca	WavEC Offshore Renewables
Paper Title: [1225] Evaluating the Dynamic Response and Power Performance of a Floating Hybrid Wind-Wave Energy System	Vivek Francis ¹ ; Martyn Hann ¹ ; Midhun Chandran ¹ ; Oluwamayowa Afolabi ¹ ; Keri Collins ¹ ; Aude Mulard ² ; Deborah Greaves ¹	(1) University of Plymouth; (2) AEON Energy Ltd

Break 20 minutes

16h00 - 17h40

Session title: Tidal resource characterization 2		
Chair: Danny Coles, University of Oxford		
Paper Title: [960] Novel Approach for a Tidal Energy Resource Assessment within Long Island Sound Using a Spatial Multi-Criteria Decision Analysis Process	Christopher Flanary ¹ ; Timothy Nelson ¹ ; Ashley Ellenson ¹ ; Samuel McWilliams ¹ ; Nancy Tanguay ²	(1) Integral Consulting Inc.; (2) Future Island Impact
Paper Title: [967] Characterising crossflow tidal energy converter turbulent eddy propagation using a low-cost, fast-sampling turbulence probe	Elias Marchetti ¹ ; Ian Benson ² ; Alan Hunter ¹ ; Anna Young ¹	(1) University of Bath; (2) Queen's University Belfast
Paper Title: [977] A multi-scale analytical model for the performance of a tidal stream array in a tidal channel	Fei He ¹ ; Yaling Chen ² ; Athanasios Angeloudis ² ; Christopher Vogel ¹ ; Thomas Adcock ¹	(1) University of Oxford; (2) University of Edinburgh
Paper Title: [1011] High-Fidelity Tidal Current Modelling in Irish Sites to Inform the Feasibility of Novel Energy Use Cases	Md Ashkar Bin Sayeed ¹ ; Fiona Devoy McAuliffe ¹ ; Brendan Cahill ² ; Patrick Cronin ² ; Michael O'Shea ¹	(1) University College Cork; (2) Ocean Renewable Power Company (ORPC), Inc.

17h45 - 19h15

Side Events		
OES Task 10 - Numerical modelling and validation		

09h00 - 10h40

Room 4

Session title: Tidal device development and testing 1

Chair: Carwyn Frost, Queen's University Belfast

Paper Title: [708] Hydrodynamic analysis and fatigue loading evaluation of a tidal turbine	Kai Xu ¹ ; William Finnegan ¹ ; Fergal O'Rourke ² ; Jamie Goggins ¹	(1) University of Galway; (2) Dundalk Institute of Technology
Paper Title: [710] Tidal turbine versus wind turbine drive train testing – synergies and challenges	Tobias Bauer; Georg Jacobs; Julian Röder; Maximilian Zweiffel; Jakob Roth	RWTH Aachen University
Paper Title: [756] Passively Pitching Blades for Tidal Turbines: Design and Modelling	Kuba Frankowski; Puja Sunil; Michael O'Sullivan; Anna Young; Riccardo Broglia; Edward McCarthy; Ignazio	University of Edinburgh
Paper Title: [802] Sensor Placement Optimisation for FastBlade Reaction Frame Health Monitoring Using Machine Learning Approaches	Gabrielis Cerniauskas; Sergio Lopez Dubon; Fergus Cuthill; Edward David McCarthy; James A. McCarthy; James A. Quinn; Marek Jan Munko; Dilum	University of Edinburgh

Break 20 minutes

11h00 - 12h40

Session title: Tidal device development and testing 2

Chair: William Finnegan, University of Galway

Paper Title: [804] Experimental study of a quadrirotor twin vertical axis tidal turbine behaviour under regular waves	Yanis Saouli ¹ ; Benoît Gaurier ² ; Grégory Germain ² ; R. Linant ¹ ; Guillaume Maurice ¹	(1) HydroQuest; (2) IFREMER
Paper Title: [817] Optimising the control of a fixed pitch tidal turbine using a python based tool	Frederick Gibbs ¹ ; Markus Mueller ¹ ; Jeremy Smith ² ; Mohammad Abusara ³ ; Selda Oterkus ⁴	(1) University of Edinburgh; (2) QED Naval Ltd.; (3) University of Exeter; (4) Univeristy of Strathclyde
Paper Title: [835] Optimising Tidal Lagoon Design and Operations for Energy Generation	Jingjing Xue ¹ ; Evans Paul ¹ ; Nikolaos Spanakis ¹ ; Matthew Allmark ² ; Rebecca Jeffrey ³ ; Deri Lamb ³	(1) Intertek Metoc; (2) Cardiff University; (3) Offshore Renewable Energy Catapult
Paper Title: [843] System Integration of an Instrumented Open-Source Tidal Energy Converter (OSTEC) Testbed	Parviz Sedigh ¹ ; Mason Bichanich ¹ ; Martin Wosnik ¹ ; Aidan Bharath ¹ ; Vincent Neary ² ; Robert Cavagnaro ³ ; Kenneth Lannamann ⁴	(1) University of New Hampshire – Atlantic Marine Energy Center (UNH-AMEC); (2) National Renewable Energy Laboratory (NREL); (3) Sandia National Laboratories (SNL); (4) Pacific Northwest National Laboratory
Paper Title: [1034] Hinged connected platforms for floating tidal turbines	Abel Arredondo-Galeana ¹ ; Yongqiang Chen ² ; Saishuai Dai ¹ ; Xiantao Zhang ² ; Feargal Brennan ¹	(1) University of Strathclyde; (2) State Key Laboratory of Ocean Engineering, Shanghai Jiao Tong University

12h40 - 14h00

Lunch

14h00 - 15h40

Room 4

Session title: Tidal device development and testing 3

Chair: Cameron Johnstone, University of Strathclyde

Paper Title: [860] A 1-m scale axial-flow turbine instrumented test bed for the UNH towing tank – comparison of experimental and numerical results

Megan Andersen¹; Dongyoung Kim²; Vincent Neary²; Martin Wosnik¹

(1) University of New Hampshire; (2) Sandia National Laboratories

Paper Title: [909] UNH-MODAQ: An implementation of NREL’s Modular Ocean Data Acquisition System for the Open-Source Tidal Energy Converter (OSTEC) Project

Mason Bichanich¹; Aidan Bharath²; Martin Wosnik¹; Robert Raye²; Parviz Sedigh¹; Charles Candon²

(1) University of New Hampshire - Atlantic Marine Energy Center; (2) National Renewable Energy Laboratory

Paper Title: [916] Implications of span-wise inflow variation on incident flow measurement of a transverse axis crossflow tidal turbine

Jan Dillenburg-Keenan; Patrick Cronin; Harry Knoblauch; Conor Dillon; Carwyn Frost

Queen's university Belfast

Paper Title: [917] Testing a novel tidal turbine design with passive blade-pitch and reversible rotor mechanism

Thomas Summers; George Dadd; Callum Watkins; Justin Hinshelwood; Jonathan Shek; Selda Oterkus

University of Edinburgh

16h00 - 17h40

Break 20 minutes

Session title: Tidal hydrodynamic modelling 3

Chair: Stephanie Ordóñez-Sánchez, University of Strathclyde

Paper Title: [753] Analysis of Transient Inlet Velocity Impacts on Hydrodynamic Performance, Blade Loading, and Wake Dynamics on a Horizontal Axis Tidal Turbine using Detached Eddy Simulation

Abiola Akinnibosun; Dominic Groulx

Dalhousie University

Paper Title: [979] Operation of a hydrokinetic turbine over a mobile sediment bed

Jiafeng Yang; Sulaiman Hurubi; Pablo Ouro; Eugeny Buldakov; Thorsten Stoesser

University College London

Paper Title: [990] Effects of synthetic sheared flow on a utility-scale rotor in an open channel

Bogosi Msutwana; Xiaosheng Chen; Richard Willden

University of Oxford

Paper Title: [1006] Tidal turbines under combined currents and waves: experimental and numerical study

Federico Zilic de Arcos; James McNaughton; Richard Willden; Christopher Vogel; Gregory Pinon

University of Oxford

09h00 - 10h40

Room 1		
Session title: Wave device development and testing 4		
Chair: Matt Folley, Applied Renewables Research Ltd.		
Paper Title: [881] Experimental Analysis of the Effect of Surge-Pitch Coupling on the Dynamics and Power Production a Submerged Wave Energy Converter	Raza Ali; Aeron Roach; Bret Bosma; Bryson Robertson	Oregon State University
Paper Title: [896] Performance of a multi - chamber OWC embedded in a circular platform	Antonino Simone Spanò; Giovanni Malara; Felice Arena	Mediterranea University of Reggio Calabria
Paper Title: [944] Sea Trialling the M4 Wave Energy Converter: Initial Hydrodynamic Performance Insights	Adi Kurniawan ¹ ; Hugh Wolgamot ¹ ; Guy McCauley ¹ ; Matthaus Zering ¹ ; Peter Stansby ²	(1) University of Western Australia; (2) University of Manchester
Paper Title: [946] Toward defining wave prediction requirements for wave energy applications	Nataliia Sergiienko ¹ ; Mathieu Cocho ²	(1) University of Adelaide; (2) Carnegie Clean Energy Ltd.
Break 20 minutes		

11h00 - 12h40

Session title: Wave device development and testing 5		
Chair: Nataliia Sergiienko, The University of Adelaide		
Paper Title: [800] Theoretical and experimental analysis of a dual chamber OWC device	Dimitrios Konispoliatis; Ioannis Chatjigeorgiou; Dimitrios Liarokapis; Argyris Mavrakos; Gregory Grigoropoulos	National Technical University of Athens
Paper Title: [968] Comparison of interaction effects between multi-wave absorber systems	Matthew Holland ¹ ; Niall McLean ¹ ; Elva Bannon ¹ ; David Forehand ² ; Thomas Giles ² ; Katie Smith ² ; Laura-Beth Jordan ² ; Thomas Davey ²	(1) Wave Energy Scotland; (2) University of Edinburgh
Paper Title: [996] Wave amplification using a flexible floating water bladder for WEC enhanced performance	Pedro Lomonaco ¹ ; Mike Plackett ² ; Alex Sutherland ¹ ; Solomon Yim ¹	(1) Oregon State University; (2) M.J. Plackett & Associates
Paper Title: [1051] Experimental Scaling Challenges of Air Turbines for Oscillating Water Column Wave energy converters	Beatrice Fenu ¹ ; João C. C. Henriques ² ; Ander Zarketa Astigarraga ³ ; Yeraí Peña Sanchez ³ ; Markel Peñalba Retes ³	(1) Politecnico di Torino; (2) Instituto Superior Técnico, Universidade de Lisboa; (3) Mondragon University
Paper Title: [1052] Combining a wave tank with a robotized dry test rig for WEC evaluation	Dana Salar; Erik Hultman	Uppsala University
Lunch		

12h40 - 14h00

14h00 - 15h40

Room 1

Session title: Wave device development and testing 6

Chair: Peter Stansby, University of Manchester

Paper Title: [927] Validation challenges and applicability of the Wavebox concept: a novel wave-tank for early stage testing	Iñigo Zárate Garcia ¹ ; Dana Salar ² ; Joannes Berque ³ ; Erik Hultman ² ; Jesus Maria Blanco Ilzarbe ¹ ; Iñigo Mendikoa ³	(1) UPV-EHU; (2) Upsala University; (3) Tecnalia
Paper Title: [973] Experimental Validation of Pressure Differential Wave Energy Converters on a Versatile Floating Platform Using Advanced Experimental Techniques	Thomas Giles; Thomas Davey; David Forehand; Laura-Beth Jordan; Elva Bannon; Niall McLean; Matthew Holland	University of Edinburgh
Paper Title: [1060] Modelling and control of wave energy converters with nonlinearities: An LPV and robust control approach	Salvatore Galazzo ¹ ; Nicolás Faedo ¹ ; Demián García-Violini ²	(1) Politecnico di Torino; (2) Universidad Nacional de Quilmes
Paper Title: [1073] On the response of the U-Oscillating Water Column breakwater in the Port of Salerno for PTO installation	Alessandra Romolo ¹ ; Vincenzo Fiamma ¹ ; Giovanni Malara ¹ ; Valentina Laface ¹ ; Antonino Simone Spanò ² ; Elena Valentino ³ ; Felice Arena ¹	(1) Mediterranea University of Reggio Calabria; (2) Wavenrgy.it; (3) Port System Authority of the Central Tyrrhenian Sea , Salerno
Paper Title: Techno-Economic Optimization of CETO Wave Energy Converters: Balancing Performance and Cost through Load Reduction	Elie Al Shami; Alexandre Pichard	Carnegie Wave Energy

16h00 - 17h40

Break 20 minutes

Session title: Wave device development and testing 7

Chair: Christophe Gaudin, The University of Western Australia

Paper Title: [1128] Multi-Objective Development of a Point Absorber Wave Energy Converter Using Dynamic Modelling	Gianmaria Giannini ¹ ; Giuseppe Giorgi ¹ ; Paulo Rosa-Santos ² ; Francisco Taveira-Pinto ² ; Giuliana Mattiazzo ¹ ; Victor Ramos ² ; Ermanno Giorcelli ¹	(1) Politecnico di Torino; (2) University of Porto
Paper Title: [1141] Design Optimization and Experimental Validation of a Pendulum-Based Wave Energy Converter for Autonomous Ocean Drones	Arsh Khan; Evan Kuo; Elaf Alahdal; Nilesh Kothari; Mikin Patel; Reza Alam	UC Berkeley
Paper Title: [1215] Wave Energy Conversion Efficiency of the UGEN along the Western Portuguese Coast	Sergio Ribeiro e Silva; Diogo Lourenço; Lúgia Pinto	MARETEC, Instituto Superior Técnico, Universidade de Lisboa
Paper Title: [1248] Power optimisation of a heaving buoy in a wave-enhancing contraction	Onno Bokhove; Harvey Thompson; Omar Naar; Peter Grieve; Jongrae Kim	

09h00 - 10h40

Room 2		
Session title: Wave hydrodynamic modelling 5		
Chair: Giuseppe Giorgi, Politecnico di Torino		
Paper Title: [730] Augmenting the Modelica Ocean Engineering Toolbox to Support Multibody Dynamic Simulations	Thomas Hogan; Kush Bubbar	University of New Brunswick
Paper Title: [734] Comprehensive analytical modeling framework for inertial wave energy converters: Theory, simplification, and case study	Fabio Carapellese	Politecnico di Torino
Paper Title: [818] A spectral-domain wave-to-wire model for wave energy converters with a geared rotary generator	Jian Tan; George Lavidas	Delft University of Technology
Paper Title: [840] A control-oriented modeling framework for wave energy converters	Gabriel Forstner ¹ ; Tobias Glaser ² ; Pierre Lourdais ¹ ; Jørgen Hals Todalshaug ¹	(1) CorPower Ocean; (2) Kreisel Electric

11h00 - 12h40

Break 20 minutes		
Session title: Grid/off-grid integration, power take-off and control 1		
Chair: Nicolas Faedo, Politecnico di Torino		
Paper Title: [717] Enhancing Decentralized Control of Wave Energy Arrays by Predicting Optimal Array Motion	Zechuan Lin ¹ ; Yifei Han ² ; Pedro Fornaro ¹ ; Xi Xiao ² ; John Ringwood ¹	(1) Maynooth University; (2) Tsinghua University
Paper Title: [796] Predictive control technique for peak shaving of oscillating water column type wave energy converter	Su-gil Cho; Jaewon Oh; Kilwon Kim; Sanghyun Park; Kyong-Hwan Kim; Jiyong Park; Yoon-Jin Ha; Jeong-Seok Kim; Hyungwoo Kim; Jung Hee Lee	Korea Research Institute of Ships and Ocean Engineering
Paper Title: [863] Developing control strategies for a floating oscillating water column wave energy converter	Clara Vanessa Encke; Krishnakumar Rajagopalan; Patrick Cross; Troy Heitmann; Terry Lettenmaier; Duncan Lajousky; Kyle Pappas; Ersegun Deniz Gedikli	University of Hawai'i
Paper Title: [918] On a causal force constraint mechanism for approximate velocity tracking wave energy control strategies	Pedro Fornaro; Eugenio M. Gelos; John V. Ringwood	Maynooth University
Lunch		

12h40 - 14h00

14h00 - 15h40	Room 2		
	Session title: Grid/off-grid integration, power take-off and control 2		
	Chair: Lei Zou, University of Michigan - Ann Arbor		
	Paper Title: [853] Health-aware control augmentation for wave energy converters using a reliability metric	Amin Ziaei; Hafiz Ahsan Said; John Ringwood	Centre for Ocean Energy Research (COER), Maynooth University
	Paper Title: [882] A Comparative study on basic design of hybrid storage architectures for grid-connected arrays of wave energy converters	Viola De Clerck ¹ ; Hafiz Ahsan Said ² ; Bruno Paduano ¹ ; Edoardo Pasta ¹	(1) Politecnico di Torino; (2) Maynooth University
16h00 - 17h40	Paper Title: [890] Symphony: The Ultimate Wave Energy Controller	Pedro Fornaro; Zechuan Lin; Eugenio M. Gelos; John Ringwood	Centre for Ocean Energy Research (COER), Maynooth University
	Paper Title: [930] Integrating a Wave Farm into an Isolated Power System with Energy Storage Systems: Analysis of Frequency Stability and Renewable Energy Penetration	Jorge Nájera ¹ ; Marcos Blanco ¹ ; Gustavo Navarro ¹ ; Eduardo Rausell ¹ ; Valentín Urda ¹ ; Marcos Lafoz ¹ ; Jose Ignacio Sarasúa ² ; Guillermo Martínez ² ; Juan Ignacio Pérez ²	(1) CIEMAT;(2) UPM
	Break 20 minutes		
	Session title: Marine spatial planning, environmental impact and appraisal 2		
	Chair: Jan Sundberg, Uppsala University		
	Paper Title: [907] Observation of fish, birds, and harbor seals around an operating cross-flow turbine	Christopher Bassett ¹ ; Emma Cotter ²	(1) University of Washington; (2) Pacific Northwest National Laboratory
17h45 - 19h15	Paper Title: [989] Supporting Marine Energy Project Developments in the U.S.: A Toolkit for Siting and Permitting	Sharon Kramer ¹ ; Grace Chang ² ; Zachary Barr ³ ; Cesar R. Castillo ⁴ ; Chrisopher Flanary ²	(1) HT Harvey & Associates; (2) Integral Consulting Inc.; (3) Kearns & West; (4) Sandia National Laboratories
	Paper Title: [1105] Underwater Noise Monitoring of a Wave Energy Converter: Insights from the HiWave-5 Project in Aguçadoura, Portugal	Luana Clementino ¹ ; Clara Rodrigues ¹ ; Miguel Amado; Pedro Vinagre ¹ ; Inês Machado ¹ ; Quentin Geerinckx ² ; Nikla Schmidt ² ; Simone Teixeira ² ; Juan Bald ³	(1) WavEC - Offshore Renewables; (2) CorPower Ocean; (3) AZTI
	Paper Title: [1193] Minimizing environmental risks to progress the marine renewable energy industry	Lysel Garavelli, Garavelli; Deborah Rose; Mikaela Freeman; Lenaig Hemery; Hayley Farr; Andrea Copping	Pacific Northwest National Laboratory
	Paper Title: [795] A study on periodical biofouling management plan for sustainable marine renewable energy	Sebeom Oh; Su-gil Cho	Korea Research Ships and Ocean Engineering
	Side Events		
	PLOCAN (MARINERGI project)		

09h00 - 10h40

Room 3		
Session title: Structural mechanics: materials, fatigue, loadings 2		
Chair: Venki Venugopal, The University of Edinburgh		
Paper Title: [714] The Life of a Tidal Blade under Fatigue Testing	Sergio Sergio Lopez Dubon ¹ ; Fergus Cuthill ¹ ; Miguel Valdivia ¹ ; Christopher Vogel ² ; Conchur O’ Bradaigh ³ ; Edward D. McCarthy ¹	(1) University of Edinburgh; (2) University of Oxford; (3) University of Sheffield
Paper Title: [959] Tribological investigation of polyurethane materials for rack-and-pinion in Wave Energy Converter (WEC) systems	Á. Kalácska ¹ , K. Hectors ¹ , H. Lustig ² , S. Swanenberg ² , W. De Waele ¹ , P. De Baets ¹	(1) Ghent University; (2) Dutch Wave Power
Paper Title: [1041] Fault diagnosis of a wave energy converter based on ball screw mechanism	Alejandro Gonzalez-Esculpi; Hafiz Ahsan Said; Mikael Sidenmark; John Vincent Ringwood	Centre for Ocean Energy Research (COER), Maynooth University
Paper Title: [1045] Innovative Multi-Degradation Rigs: Fast-Tracking Material Validation for Resilient Offshore Renewable Energy	Giacomo Alessandri ¹ ; Johan Lindén ² ; Leandro de Oliveira ² ; Kjell-Åke Andersson ² ; Nuria Espallargas ³ ; Hamid Khanmohammadi ³ ; Christian von der Ohe ⁴	(1) VGA srl; (2) RISE Research Institutes of Sweden; (3) Norwegian University of Science and Technology; (4) GCE Node
Paper Title: [1084] Strain failure limits of tidal turbine blades based on full-scale structural testing	William Finnegan; Ciaran Kennedy; Michael Flanagan; Jamie Goggins	University of Galway
Break 20 minutes		
Session title: Co-location, hybridization and synergies in the Blue Economy 2		
Chair: Irina Temiz, Uppsala University		
Paper Title: [875] Assessing the potential of hybrid wind-wave energy converters: a case study in Italian seas	Maria Luisa Celesti; Viola De Clerck; Alberto Ghigo; Stefania Patronelli; Davide Alberti; Giovanni Bracco; Bruno Paduano	Politecnico di Torino
Paper Title: [910] A guide for co-locating marine energy and aquaculture	Mikaela Freeman; Lysel Garavelli; Ruth Branch; Deborah Rose	Pacific Northwest National Laboratory
Paper Title: [936] Multi-Use Ocean Thermal Energy Conversion (OTEC) Platforms	Andrea Copping; Hayley Farr; Christopher Rumble; Zhaoqing Yang; Kyungmin Park; Fadia Ticona Rollano	Pacific Northwest National Laboratory
Paper Title: [1023] Wave Dragon wave-wind project	Erik Friis-Madsen ¹ ; Kim Nielsen ² ; Julia Fernandez Chozas ² ; Sarah Krogh Iversen ³ ; Peter Frigaard ³ ; J. P. Kofoed ³ ; H.C. Soerensen ¹ , T. Nohrlind ¹	(1) Wave Dragon; (2) Consulting Engineer; (3) Aalborg University
Paper Title: [1242] Experimental investigation of a novel wave energy floating platform for hybrid wind-wave applications: The OctaPlat	Nuno P. Mendonça ¹ ; Juan C. C. Portillo ^{1,2}	(1) Instituto Superior Técnico, University of Lisbon; (2) LNEG - National Laboratory for Energy and Geology
Lunch		

12h40 - 14h00

14h00 - 15h40

Room 3		
Session title: Co-location, hybridization and synergies in the Blue Economy 3		
Chair: Jorge Camacho, PLOCAN		
Paper Title: [841] Co-location, hybridization, and synergies in the blue economy: Unlocking transformative potential for marine energy	Uchechukwu Nwaiwu	Abia State University, Uturu
Paper Title: [872] Advancing Multi-Energy Marine Platforms: Insights from the TwinPower Project on Digital Twins, Renewable Technologies, and Coastal Integration	Xavier PELLERIN; Guillaume LEMAITRE	Builders école d'ingénieurs
Paper Title: [1103] Analytical Lagrangian model for constrained multi-body systems subjected to Froude-Krylov forces	Matheus Costa; Jander Santos; Erivelton Nepomuceno	Maynooth University
Paper Title: [1110] Numerical investigation of a novel hybrid wind-wave system and its variable pneumatic chamber volume control	João Marreiros ¹ ; Juan Portillo ^{1,2}	(1) Instituto Superior Técnico, Universidade de Lisboa; (2) Laboratório Nacional de Energia e Geologia (LNEG)
Paper Title: [1111] On the Integration of Hydrogen in multipurpose wave energy platforms	Juan Portillo ^{1,2} ; Guilherme Mourão ¹	(1) Instituto Superior Técnico, Universidade de Lisboa; (2) Laboratório Nacional de Energia e Geologia (LNEG)
Break 20 minutes		
Session title: Station-keeping, moorings and foundations 2		
Chair: Lars Johanning, University of Plymouth		
Paper Title: [823] Experimental assessment of mooring loads and response of the M4 wave energy converter in complex conditions: the effect of currents and crossing seas	Samuel Draycott ¹ ; Zi You Felix Ma ¹ ; Gangqiang Li ² ; Peter Stansby ¹	(1) University of Manchester; (2) École Centrale de Nantes
Paper Title: [842] A novel two-point mooring for a floating vertical axis tidal turbine platform	Luke Friedl; Spencer Funk; Ignacio Beya Marshall; Blake Holowaty; Riley Richardson; Ben Whitby; Voytek Klaptocz; Brad Buckham	University of Victoria
Paper Title: [851] Effects of Biofouling on Hydrodynamic Behavior of a Semi-submersible Marine Energy System	Jiahn-Horng Chen; KuanTing Yang	National Taiwan Ocean University
Paper Title: [902] WEC control co-design for mooring optimisation: A screening of programming languages and software tools	Hafiz Ahsan Said; Manal Mekelleche; John Ringwood	Centre for Ocean Energy Research (COER), Maynooth University
Side Events		
OESEnvironmental acceptability/Aq uatera		

17h45 - 19h15

09h00 - 10h40

Room 4		
Session title: Tidal hydrodynamic modelling 4		
Chair: Yabin Liu, University of Cambridge		
Paper Title: [1020] Maximum tidal turbine blade loading during waves and corresponding onset flow variation	Tim Stallard; Hannah Mullings	University of Manchester
Paper Title: [1043] Parametric Design and Evaluation of Floating Tidal Turbines under Real World Wave Scenarios	Thomas Clarke; Federico Zilic de Arcos; Richard Willden	University of Oxford
Paper Title: [1094] Improved Hydrodynamics Modeling for Marine Turbines in OpenFAST	Will Wiley; Hannah Ross; Thanh Toan Tran; Lu Wang; Jason Jonkman; Andrew Platt	National Renewable Energy Laboratory
Paper Title: [1102] Solution-driven Mesh Adaptation Method for Unsteady Tidal Turbine Array Simulation and Optimisation	Eleda Johnson; Joseph Wallwork; Stephan Kramer; Matthew Piggott	Imperial College London

Break 20 minutes

11h00 - 12h40

Session title: Tidal device development and testing 4		
Chair: AbuBakr Bahaj, University of Southampton		
Paper Title: [919] Performance analysis of a hydraulic tidal turbine for seawater desalination	Antonio Jarquin-Laguna	Delft University of Technology
Paper Title: [929] Tidal flow variation at a test site: instrumentation, physics, or both?	Thomas Lake; Ian Masters; Ali Esmaeili; Iestyn Evans; Deepak George; David Glasby; Jose M. Horrillo-Caraballo; Dawn Morgan; Michael Togneri; Alison J. Williams	Swansea University
Paper Title: [937] De-risking hydrokinetic turbine projects by towing tank tests	Francesco Salvatore ¹ ; Massimo Falchi ¹ ; Mohammad Rafiei ¹ ; Francesca Magionesi ¹ ; Patrick Cronin ² ; Clement Courade ² ; Conor Dillon ²	(1) CNR-INM, Institute of Marine Engineering, National Research Council, Rome; (2) ORPC Ireland
Paper Title: [940] Passively pitching blades for tidal turbines: Experimental Demonstration	Puja Sunil ¹ ; Kuba Frankowski ¹ ; Anna Young ² ; Riccardo Broglia ³ ; Edward McCarthy ¹ ; Ignazio Maria Viola ¹	(1) University of Edinburgh; (2) University of Bath; (3) CNR-INM Institute of Marine Engineering, National Research Council, Rome

12h40 - 14h00

Lunch

14h00 - 15h40

Room 4

Session title: Tidal device development and testing 5

Chair: Cameron Johnstone, University of Strathclyde

Paper Title: [953] Tidal Turbine Benchmarking Project: Stage II - Experiments on unsteady loading in waves	Nijmeh Marouf; Yadong Han; Richard Willden; Sam Tucker Harvey	University of Oxford
Paper Title: [954] Using Multibeam Sonar to Characterise the Wake of a Cross-Flow Tidal Turbine	Jeffrey Johnston; Pal Schmitt	Queen's University Belfast
Paper Title: [961] Assessment of a floating platform for testing a crossflow tidal turbine	Carwyn Frost ¹ ; Jan Dillenburger-Keenan ¹ ; Patrick Cronin ²	(1) Queens University Belfast; (2) ORPC
Paper Title: [972] Development and performance assessment of 3D-printed tidal turbine blades: Insights from steady flow testing	Selina Brinkmann; Christopher Vogel; Richard Willden	University of Oxford

Break 20 minutes

16h00 - 17h40

Session title: Grid/off-grid integration, power take-off and control 3		
Chair: George Lavidas, Delft University of Technology		
Paper Title: [964] Influence of Restoring Force Absence and Unidirectional Power Flow on the Power Absorption Performance of WavePiston	Eugenio M. Gelos ¹ ; Pedro Fornaro ¹ ; Colm Fitzgerald ² ; John V. Ringwood ¹	Centre for Ocean Energy Research (COER), Maynooth University; (2) Instituto LEICI, Universidad Nacional de La Plata (UNLP) - CONICET, Argentina
Paper Title: [1013] Genetic algorithm based co-design of wave energy converter power take-off, floater geometry, and control	Matthew Onslow ¹ ; Adam Stock ²	(1) University of Strathclyde; (2) Heriot-Watt University
Paper Title: [1036] Wave Energy Converter Power Take-off for the Albany M4; Dry Test and Initial Deployment	Judith Apsley ¹ ; Nuwantha Fernando ² ; Akila Jayasinghe ² ; Xiaotao Zhang ¹ ; Peter Stansby ¹ ; Hugh Wolgamot ³ ; Christophe Gaudin ³ ; Adi Kurniawan ³ ; Zifan Lin ³	(1) University of Manchester; (2) RMIT University; (3)University of Western Australia;
Paper Title: [1039] Experimental noise characterisation of different geometries of Wells turbines	Ana Carrelhas; João M. M. Heleno; Luís M. C. Gato	IDMEC, Instituto Superior Técnico, Universidade de Lisboa

09h00 - 10h40

Room 1		
Session title: Wave hydrodynamic modelling 6		
Chair: Jørgen Hals Todalshaug, CorPower		
Paper Title: [1007] Effects of Inclination and Cross-Sectional Variations on Resonance Characteristics of Oscillating Water Columns	Aya Kanai; Mitsumasa Iino	Ashikaga University
Paper Title: [1029] One-way energy absorption in OWC chambers – passive vs. active venting	Harry Bradford Bingham; Robert Read; Bardur Joensen; Kim Nielsen	Technical University of Denmark
Paper Title: [1033] High-fidelity numerical modeling of a pneumatic PTO for floating oscillating water column devices	Beatrice Mina ¹ ; Bonaventura Tagliafierro ² ; Iván Martínez-Estévez ³ ; Giovanni Malara ⁴ ; Felice Arena ⁴ ; Alejandro JC Crespo ³ ; Moncho Gómez Gesteira ³	(1) University School for Advanced Studies (IUSS) Pavia; (2) Uppsala Universitet; (3) Universidade de Vigo; (4) "Mediterranea" University of Reggio Calabria
Paper Title: [1067] Towards Efficient Learning of Neural Fluid Force Estimators from CFD-Sampled Regular Waves	Antoine Dupuis; Salvatore Capasso; Bonaventura Tagliafierro; Malin Göteman; Jens Engström	Uppsala University
Break 20 minutes		
Session title: Wave hydrodynamic modelling 7		
Chair: Juan Portillo, Laboratório Nacional de Energia e Geologia, IP		
Paper Title: [1113] Automated Design Exploration of the TALOS Wave Energy Converter Using the TOP-WEC Framework	David Ogden ¹ ; Salman Husain ¹ ; George Aggidis ² ; Wanan Sheng ² ; Aidan Bharath ¹ ; Jochem Weber ¹	(1) National Renewable Energy Laboratory; (2) Lancaster University
Paper Title: [1190] Comparing Numerical Models of a Floating Oscillating Water Column Wave Energy Converter	Jeff Grasberger ¹ ; Jorge Leon-Quiroga ¹ ; Mohamed Shabara ² ; Markel Peñalba ³ ; Beatrice Fenu ³ ; Yerai Peña-Sanchez ³	(1) Sandia National Labs; (2) National Renewable Energy Laboratory; (3) Mondragon University
Paper Title: [1210] Analysis of Chamber's Fillet Geometry on OWC Power Capture Performance	CHEN-CHOU LIN; Yi-Chih Chow; K.-Y. Li; Duy Tong Nguyen	National Taiwan Ocean University
Paper Title: [1226] Generalising the performance of an optimised top-hinged WEC to irregular waves	Emma Edwards	University of Oxford
Paper Title: [1012] Numerical model validation of complex flexible structures for wave energy	Francesco Ferri ¹ ; Jacob Andersen ¹ ; Steen G. Thomsen ²	(1) Aalborg University; (2) Wavepiston A/S,
Lunch		

12h40 - 14h00

Room 1

14h00 -
15h40

Session title: Wave hydrodynamic modelling 8

Chair: Gareth Thomas, University College Cork

Paper Title: [951] A SIMPLIFIED APPROACH TO OPTIMIZE WAVE ATTENUATION FOR FLOATING ENERGY ISLANDS: THE ROLE OF FLAT PLATES

Sara Russo¹; Luis Daniel Luna Anguilar²; Andrea Bardazzi¹; Diego Vicinanza²; Claudio Lugni³

(1) Institute of Marine Engineering, National Research Council of Italy; (2) University of Campania "Luigi Vanvitelli"; (3) University of Naples - Federico II

Paper Title: [984] A study on wave energy converter arrays using data-driven polynomial chaos expansion.

Avni Jain; Jian Tan; Vaibhav Raghavan; George Lavidas

Delft University of Technology

Paper Title: [1057] Set-membership identification of an inertial wave energy system

Edoardo Pasta; Nicolas Faedo

Politecnico di Torino

Paper Title: [1064] Parametric modelling of radiation forces for marine offshore renewable energy systems: A Loewner-based approach

Nicolás Faedo; Maria Luisa Celesti; Bruno Paduano

Politecnico di Torino

09h00 - 10h40	Room 2		
	Session title: Electrical Generators 1		
	Chair: Judith Apsley, University of Manchester		
	Paper Title: [925] Superconducting Linear Generators for Wave Energy Converters: A Novel Switched Reluctance Design with Optimized AC Loss Management.	Marcos Blanco; Jorge Najera; Gustavo Navarro; Marcos Lafoz; Eduardo Rausell; Valentin Urda; Luis García-Tabares; Javier Munilla	CIEMAT
	Paper Title: [933] Stand-alone system for Oscillating Water columns: Design and numerical simulation	Margarida Galvão; Pedro Costa; Luís M. C. Gato; Ana A. D. Carrelhas	Instituto Superior Técnico, Universidade de Lisboa
	Paper Title: [1206] Modular electrical generator power take off system for wave - MEGA WAVE PTO	Markus Mueller ¹ ; Miguel Vicente ² ; Paula Bastos ² ; Ana Brito e Melo ² ; Joseph Burchell ³ ; Michael Galbraith ³ ; Giorgos Skarmoutsos ¹ ; Syidy Ab Rasid ¹ ; Craig Britton ⁴ ; Konstantinos Gyftakis ⁵ ; Marco Fontana ⁶ ; Rocco Vertechy ⁷ ; Henry Jeffrey ¹ ; David Forehand ¹ ; Michael Merlin ¹ ; Julian Roeder ⁸ ; Maximilian Zweifel ⁸ ; Paul Brewster ⁹ ; Chris Retzler ¹⁰ ; Miguel Santos Herran ¹¹ ; L. Chubb ¹²	(1) University of Edinburgh; (2) WavEC, Portugal; (3) CGEN Engineering, UK; (4) Supply Design Ltd, UK; (5) TU Crete, Greece; (6) Scuola Superiore Sant'Anna Pisa; (7) Cheros Engineering, Italy; (8) RWTH Aachen; (9) Sea Potential, Ireland; (10) Mocean Energy, UK; (11) CETO Wave Energy Ireland Ltd; (12) Ocean Energy Europe
11h00 - 12h40	Break 20 minutes		
	Session title: Electrical Generators 2		
	Chair: Marcos Blanco Aguado, CIEMAT (Centro de Investigaciones Energéticas, Medioambientales y Tecnológicas)		
	Paper Title: [839] Investigation of Novel Designs of Linear Generators Based on Transverse-Flux Machines for Wave Energy Conversion Systems	Oleksii Duniev ¹ ; Andrii Yehorov ¹ ; Andrii Masliennikov ¹ ; Larysa Shylkova ¹ ; Mario Stamann ² ; Rupert Gouws ³ ; Oleksandr Dobzhanskyi ⁴	(1) Kharkiv Polytechnic Institute; (2) Otto-von-Guericke University Magdeburg; (3) North-West University, Potchefstroom; (4) Orhont Magnetics
	Paper Title: [934] Stand-alone system for Oscillating Water columns: Experimental testing and comparison with numerical model	Margarida Galvão; Pedro Costa; Luís M. C. Gato; Ana A. D. Carrelhas	Instituto Superior Técnico, Universidade de Lisboa
	Paper Title: [982] The MARES Project: Development of a New Wave Energy Power Take-Off Based on a Superconducting Switched Reluctance Machine	Luis Garcia-Tabares ¹ ; Marcos Blanco ¹ ; Gustavo Navarro ¹ ; Javier Munilla ¹ ; Luis Antonio Gonzalez ¹ ; Carlos Hernando ² ; Carlos Gil ² ; Rafael Iturbe ³ ; Gustavo Sarmiento ⁴ ; Luca Soldati ⁵ ; Aleix Jesus Arenas ⁶ ; Marco Breschi ⁷ ; Amalia Ballarino ⁸	(1) CIEMAT; (2) CYCLOMED; (3) ANTEC MAGNETS; (4) SUPRASYS; (5) ASG; (6) WEDGE GLOBAL; (7) University of Bologna; (8) CERN
12h40 - 14h00	Paper Title: [1211] DESIGN, CONSTRUCTION AND RESULTS OF A TEST SYSTEM OF REAL ELECTRICAL MACHINES TO BE USED IN WAVE ENERGY	Juan Luis Larrabe Barrena; Miguel Angel Gómez Solaetxe	UPV/EHU
	Lunch		

Room 2

14h00 -
15h40

Session title: Wave resource characterization 3

Chair: Sara Russo, CNR - INM

Paper Title: [732] Wave Energy Potential in the Mediterranean: Insights from High-Resolution Satellite Altimetry, In-Situ Data and the ERA5 reanalysis	Sonia Ponce de Leon	CENTEC-Instituto Superior Tecnico
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Paper Title: [889] A machine learning model for 2D significant wave height forecasts around Scotland	Victoria Martí Barclay; Bahareh Kamranzad	University of Strathclyde
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Paper Title: [941] Analysis of Weather Windows and Impacts of Time to Repair on Device Availability at Two Wavepiston Deployment Sites	Colm J. Fitzgerald ¹ ; Eugenio Gelós ¹ ; Emiel Schut ² ; Steen Grønkjær Thomsen ² ; John Ringwood ¹	(1) Maynooth University; (2) Wavepiston
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Paper Title: [1185] High-Fidelity Numerical Modeling and Experimental Measurement of Wave Fields in the Azores	Giacomo Dieci ¹ ; Tiago Gomes ¹ ; Antonio Maximiano ¹ ; Guilherme Vaz ¹ ; Eduardo Azevedo ² ; Francisco Reis ²	(1) blueOASIS; (2) Universidade dos Açores
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09h00 - 10h40

Room 3		
Session title: Co-location, hybridization and synergies in the Blue Economy 4		
Chair: Ana Brito e Melo, WavEC		

Paper Title: [885] On the role of wave energy in the renewable energy mix complementarity: A comparative study between Italy and Ireland	Lucia Clara Cairella ¹ ; Hafiz Ahsan Said ² ; Edoardo Pasta ¹	(1) Politecnico di Torino; (2) Maynooth University
Paper Title: [1025] Assessing the Technical Feasibility and Resource Integration of Hybrid Offshore Wind and Tidal Stream Energy System	Marianella Bolivar Carbonell; Stephanie Ordonez-Sanchez	Strathclyde University
Paper Title: [1205] Using WEC arrays to enhance the stability and power output of floating wind turbines	Diego Fernando Bernal Camacho; Andreas T. Asiikkis; Edgar Mendoza; Antonis I. Vakis	UNAM
Paper Title: [1216] A review of wave energy converters for stabilisation and power output optimisation of floating offshore wind platforms	Josefredo Gadelha da Silva ¹ ; Marcio Junior Lacerda ² ; Erivelton Nepomuceno ¹	(1) Maynooth University; (2) London Metropolitan University
Paper Title: [1124] MARINERG-i_PP – Building a European Research Infrastructure Consortium for Offshore Renewable Energy	Fiona McAuliffe ¹ ; Cameron Johnstone ²	(1) University College Cork; (2) University of Strathclyde

11h00 - 12h40

Break 20 minutes		
Session title: Tidal device development and testing 6		
Chair: Stephanie Ordóñez-Sánchez, University of Strathclyde		
Paper Title: [995] Optimizing the interplay between the chord to radius ratio, camber and pitch of cross-flow turbine blades	Ari Athair; Aidan Hunt; Han-Wen Chi; Owen Williams	University of Washington
Paper Title: [1001] Blade root force measurements on vertical axis tidal turbine	Robin Linant ¹ ; Gregory Germain ¹ ; Benoît ¹ Christophe Penisson ² ; Guillaume Maurice ²	(1) IFREMER; (2) HydroQuest
Paper Title: [1062] Direct-Driven Blade-Embedded Pitch Actuator for High Dynamic Pitching Applications	Adhithiyan Jayaprakash ¹ ; Stefan Hoerner ² ; Roberto Leidhold ¹	(1) Otto-von-Guericke-University Magdeburg; (2) Laboratoire des Écoulements Géophysiques et Industriels, Grenoble
Paper Title: [1087] Open source tidal turbine: experience of operations at the Marine Energy Test Area	Ian Masters; Ali Esmaeili; Iestyn Evans; Deepak George; David Glasby; Jose Horrillo-Caraballo; Tom Lake; Michael Togneri; Alison Williams	Swansea University
Lunch		

12h40 - 14h00

Room 3

14h00 -
15h40

Session title: Tidal resource characterization 3

Chair: AbuBakr Bahaj, University of Southampton

Paper Title: [871] Tidal energy resource characterization and assessment in Turnagain Arm of Cook Inlet: from pilot to commercial scales	Zhaoqing Yang; Taiping Wang; Chris Lee	Pacific Northwest National Laboratory
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Paper Title: [1026] Comparing satellite based tidal resource assessment	Daniela Vignali, M. Mihajlovic	DMEC, Netherlands
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Paper Title: [1037] Co-location of Tidal and Offshore Wind Energy Generation: Hydrodynamic Analysis of Monopile Impact on Tidal Energy Resource	Mahdi Alemi; Kai Chu; Ozlem Ceyhan Yilmaz	IMDC, Belgium
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Paper Title: [1092] Large Eddy Simulation of an Energetic Tidal Strait with Device-Scale Turbulence	Angus Creech ¹ ; Adrian Jackson ² ; Richard Karsten ¹ ; Alex Hay ³ ; Justin McMillan ⁴	(1) Acadia University; (2) Edinburgh Parallel Computing Centre; (3) Dalhousie University; (4) Fisheries and Oceans Canada
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09h00 - 10h40

Room 4		
Session title: Wave device development and testing 8		
Chair: Markel Penalba, Mondragon University		
Paper Title: [726] Modeling and Validation of a Small-Scale Wave Energy Converter for Unmanned Underwater Vehicle Applications	Hannah Walker; Eugene Pawlak; Michael Tolley	UCSD
Paper Title: [877] Sea trials of the Seaturns 1:4 scale wave energy converter	Martin Träsch ¹ ; Arthur Chauliac ² ; Vincent Perier ¹ ; Michel Répécaud ¹ ; Gabriel Canteins ² ; Vincent Tournerie ²	(1) IFREMER; (2) Seaturns
Paper Title: [1053] A simple method for optimizing wave energy harvest from a spar buoy WEC	Raphael Hon; Megan Lee Anderson; Jeff Grasberger	Wavewatts
Paper Title: [1115] Numerical Modeling of Flexible Oscillating Water Columns for Wave Energy Conversion	Ossama Abdelkhalik	Iowa State University

Break 20 minutes

11h00 - 12h40

Session title: Grid/off-grid integration, power take-off and control 4		
Chair: John Ringwood, Maynooth University		
Paper Title: [751] Assessment of tidal stream energy's ability to enhance system resilience	Danny Coles; Thomas Adcock	University of Oxford; University of Oxford
Paper Title: [928] Integrated Hydrodynamic and Electromechanical Modelling of Tidal Turbine PTO	Mohammad Rafiei ¹ ; Mona Shayegan ² ; Marco Di Benedetto ² ; Francesco Salvatore ¹	(1) CNR-INM, Institute for Marine Engineering, National Research Council, Italy; (2) Roma Tre University
Paper Title: [963] Optimal control of tidal barrages considering economic factors	Agustina Skiarski ¹ ; Nicolas Faedo ² ; John Ringwood ¹	(1) COER, Maynooth University; (2) Politecnico di Torino
Paper Title: [1095] Power Take-Off Design, Integration and Commissioning of an Instrumented Open-Source Tidal Energy Converter (OSTEC) Testbed	Parviz Sedigh ¹ ; Robert Cavagnaro ² ; Aidan Bharath ³ ; Vincent Neary ⁴ ; Mason Bichanich ¹ ; Martin Wosnik ¹	(1) University of New Hampshire– Atlantic Marine Energy Center (UNH-AMEC); (2) Pacific Northwest National Laboratory (PNNL); (3) National Renewable Energy Laboratory (NREL); (4) Sandia National Laboratories (SNL);

12h40 - 14h00

Lunch 12h40-14h00		
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Room 4

14h00 -
15h40

Session title: Station-keeping, moorings and foundations 3

Chair: Chenyu Zhao, University of Plymouth

Paper Title: [942] COUPLED FREQUENCY DOMAIN FATIGUE DAMAGE EVALUATION FOR MOORING SYSTEMS IN WAVE ENERGY TECHNOLOGIES

Eguzkiñe Martinez Puente; Irati Azpilgain; Yeraí Peña Sanchez; Iñigo Llavori; Markel Penalba

Mondragon Unibertsitatea

Paper Title: [1018] Full-Scale Load Testing of the Swift Rock Anchors

Nicholas Kaufmann¹; Penny Jeffcoate²; Nick Cresswell²; Matteo Ciantia³

(1) SCHOTTEL HYDRO GmbH; (2) SCHOTTEL Marine Technologies; (3) University of Dundee

Paper Title: [1104] Integrated Site Investigations for Wave and Tidal Energy systems: Optimizing Foundation Design and Site Selection

Amadeu Deu

GEM

16h00 -
17h40

Room name: Auditorium

Session title: Plenary Session 3

Chair: Luís Gato

Paper Title: New Projects at Fundy Ocean Research Centre for Energy (FORCE)	Lindsay Bennett	FORCE
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Paper Title: AWTEC Conference announcement	Pham Tan Thi AWTEC 26 Chairman
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Paper Title: PAMEC Conference announcement	Bruce Cameron PAMEC 26 Chairman
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Paper Title: EWTEC Executive Board Chairman Address	Cameron Johnstone
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Paper Title: Marine Energy Policy in Portugal	Jean Barroca Secretário de Estado Adjunto e da Energia
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Session title: Concert

Orquestra Clássica da Madeira