

EWTEC2025 Programme Draft (August 20th)

Changes are likely to occur

All indicated chairpersons need to be confirmed

MONDAY

Slot: 1

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Room name: 0

Session title: Plenary Session 1

Chair: TBC

Paper Title: Welcome Address

Luis Gato

Paper Title: Lessons from wind energy applicable to the marine energy sector

Andrew Garrad

Paper Title: Marine Energy Policy in Madeira

Pedro Rodrigues Secretário Regional dos Equipamentos e Infraestruturas

Slot: 2

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Room name: 0

Session title: Plenary Session 2

Chair: TBC!

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; CorPower Ocean; CorPower Ocean; 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; Dutch Marine Energy Centre (DMEC); Dutch Marine Energy Centre (DMEC); Dutch Marine Energy Centre (DMEC)

Paper Title: [1030] Ocean Wave Energy in Australia

Beth Fulton; Christophe Gaudin; Irene Penesis; Tom Denniss; Brighid Jay; Chris Frid; Jess Melbourne-Thomas; Alaya Spencer-Cotton; Philip Marsh; Kate Sprogis; Rowan Trebilco; Larelle Bossi; Hugh Wolgamot; Pethie Lyons; Charles Sampford; Hugh Breakey; Nataliia Sergiienko; Peter Osman; Richard Manasseh; Kathleen McInnes

CSIRO; UWA; BE CRC; Wave Swell Energy Ltd; Carnegie Clean Energy; Griffith University; CSIRO; UWA; University of Tasmania; UWA; CSIRO; Griffith University; University of Western Australia; CSIRO; Griffith University; Griffith University; University of Adelaide; CSIRO; Swinburne University of Technology; CSIRO

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
WavEC

Paper Title: Tribute to Professor Falnes

Jørgen Hals Todalshaug
TBC!

Slot: 3

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Room name: 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; TU Delft; TU Delft

Paper Title: [704] Development of a Digital Twin for the Mutriku Oscillating Water Column Plant

Cristina Casal Escaloni; Álvaro Rodríguez Luis; Sergio Fernández Ruano; Raúl Guanche García; Jon Lekube; Endika Aldaiturriaga

IHCantabria; IHCantabria; IHCantabria; IHCantabria; BiMEP; EVE

Paper Title: [716] Ocean Wave Energy Converter Mid-Fidelity Numerical Simulation Tools: A Review

Thomas Hogan; Kush Bubbar
University of New Brunswick; 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; An Hu; Liangyu Shen; Hailong Chen; Lars Johanning
Harbin Engineering University, China; Harbin Engineering University, China; Harbin Engineering University, China; Harbin Engineering University, China; College of Engineering, Computing and Mathematics (Faculty of Science and Engineering)

Paper Title: MISSING!

MISSING!
MISSING!

Room name: 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; Bernardo Kahn; Maxime Chenimeau

OWC Uk; INNOSEA; 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; Cristina Casal; Antonio Tomás; Gabriel Díaz-Hernández; Raul Guanche; Jon Lekube; Endika Aldaiturriaga; Laura Zubiate; Yago Torre-Enciso

IHCantabria - Instituto de Hidráulica Ambiental de la Universidad de Cantabria; IHCantabria - Instituto de Hidráulica Ambiental de la Universidad de Cantabria; IHCantabria - Instituto de Hidráulica Ambiental de la Universidad de Cantabria; IHCantabria - Instituto de Hidráulica Ambiental de la Universidad de Cantabria; BiMEP - Biscay Marine Energy Platform; EVE - Ente Vasco de la Energía; BiMEP - Biscay Marine Energy Platform; BiMEP - Biscay Marine Energy Platform

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; CorPower Ocean; CorPower Ocean; CorPower Ocean

Paper Title: MISSING!

MISSING!

MISSING!

Room name: 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; Hugo Rocha Mendonça; Shigeaki Leite de Lima

Universidade Federal do Maranhão; Universidad Politécnica de Madrid; Universidade Federal do Maranhão

Paper Title: [838] Prediction of tidal currents in the Inner Sound of the Pentland Firth using RTide

Thomas Monahan; Tianning Tang; Stephen Roberts; Thomas Adcock

U of Oxford; U of Manchester; U of Oxford; U of Oxford

Paper Title: [845] Towards parametrized modeling of the current vertical structure during extreme events: application to Alderney Race.

Martin Goix; Anne-Claire Bennis; Musiedlak Pierre-Henri

Université de Caen Normandie; Université de Caen Normandie; HydroQuest

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; University of Edinburgh; University of Edinburgh

Paper Title: MISSING!

MISSING!

MISSING!

Room name: 4

Session title: Tidal hydrodynamic modelling 1

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

Paper Title: [737] Modelling an Underwater Kite Array in the Faroe Islands

Paul Evans; Danny Coles

Intertek Metoc; 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

Paper Title: MISSING!

MISSING!

MISSING!

Slot: 4

Room name: 1

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; TU Delft; TU Delft

Paper Title: [725] Validation of Capytaine for Single-Body Hydrodynamic Modelling Using the SWELL Experimental Dataset

Andreas Asிக்கி; Dimokratis Grigoriadis; Antonis Vakis

Computational Mechanical and Materials Engineering, University of Groningen, Groningen, Netherlands. Department of Mechanical and Manufacturing Engineering, University of Cyprus, Nicosia, Cyprus; Department of Mechanical and Manufacturing Engineering, University of Cyprus, Nicosia, Cyprus; Computational Mechanical and Materials Engineering, University of Groningen, Groningen, Netherlands

Paper Title: [746] A data-driven approach leveraging multi-fidelity datasets for modeling arrays of wave energy converters

Charitini Stavropoulou; Nicolás Faedo; Malin Göteman
Uppsala University; Politecnico di Torino; 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 María Blanco Ilzarbe
UPV / EHU

Paper Title: MISSING!

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MISSING!

Room name: 2

Session title: Supply chain, economic, social, legal and political aspects of ocean energy

Chair: Juan Portillo, LNEG - Laboratório Nacional de Energia e Geologia

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), DIMEAS; Politecnico di Torino; Marine Offshore Renewable Energy Lab (MOREnergyLab), DIMEAS; Politecnico di Torino; Marine Offshore Renewable Energy Lab (MOREnergyLab), DIMEAS; Politecnico di Torino

Paper Title: [788] The socio-economic benefits of tidal power to the European economy

Donald Noble; Kristofer Grattan; Henry Jeffrey

The University of Edinburgh, School of Engineering, Institute for Energy Systems

Paper Title: [883] The role of patenting in emerging renewable energy technologies: the case of wave energy technology development

Carrie Anne Barry; Peter Conlon; John Ringwood

Centre for Ocean Energy Research, Maynooth University

Paper Title: [897] Evaluating the Cost and Schedule Risk of Tidal Energy Projects

Mike Bartlett

Oxford Global Projects

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; The University of Edinburgh, School of Engineering, Institute for Energy Systems; The University of Edinburgh, School of Engineering, Institute for Energy Systems

Room name: 3

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.; FluxMagic, Inc.; FluxMagic, Inc.

Paper Title: [757] Numerical Simulation of Adhesive-Free Glass Fibre Hydrofoil Structural Demonstrators under Flexural Bending

Yadong Jiang; Conor Kelly; Diarmuid Flatharta; Omid Sam-Daliri; Tomas Flanagan; Jamie Goggins; William Finnegan

Construct Innovate and SFI MaREI Centre for Energy, Climate and Marine, Ryan Institute & School of Engineering, University of Galway; ÉireComposites Teo; ÉireComposites Teo; SFI MaREI Centre for Energy, Climate and Marine, Ryan Institute & School of Engineering, University of Galway; ÉireComposites Teo; Construct Innovate and SFI MaREI Centre for Energy, Climate and Marine, Ryan Institute & School of Engineering, University of Galway; Construct Innovate and SFI MaREI Centre for Energy, Climate and Marine, Ryan Institute & School of Engineering, University of Galway

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

Postgraduate Researcher, MaREI Centre, Ryan Institute & School of Engineering, University of Galway, Ireland

Paper Title: [815] Vortex Induced Strain of a Dynamic Power Cable in Lazy Wave Configuration under waves and currents

Venki Venugopal; Rameeza Moideen

Chair in Ocean EngineeringInstitute for Energy SystemsSchool of EngineeringThe University of EdinburghEdinburgh EH9 3DWUnited Kingdom.

Paper Title: [924] Immersed composite materials testing for tidal turbines

Edward Fagan; Michael Walls; Michael Flanagan; Clement Courade; Jeffwin George; Patrick Cronin

Zero Nexus; CTL Teo.; University of Galway; ORPC Ireland; University of Galway; CTL Teo.; ORPC Ireland

Room name: 4

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 Summerell; Gerardo Aragon-Camarasa; Stephanie Ordonez-Sanchez

University of Glasgow; University of Glasgow; 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; Pierre-Luc Delafin; Cyrille Bonamy; Yves Delannoy; Stefan Hoerner; Dominique Thévenin

Otto-von-Guericke University Magdeburg & Laboratoire des Écoulements Géophysiques et Industriels (LEGI), CNRS, Grenoble INP, Univ. Grenoble-Alpes; Laboratoire des Écoulements Géophysiques et Industriels (LEGI), CNRS, Grenoble INP, Univ. Grenoble-Alpes; Laboratoire des Écoulements Géophysiques et Industriels (LEGI), CNRS, Grenoble INP, Univ. Grenoble-Alpes; Laboratoire des Écoulements Géophysiques et Industriels (LEGI), CNRS, Grenoble INP, Univ. Grenoble-Alpes; Laboratoire des Écoulements Géophysiques et Industriels (LEGI), CNRS, Grenoble INP, Univ. Grenoble-Alpes & Otto-von-Guericke University Magdeburg; 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; 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

The University of Edinburgh; The University of Edinburgh; The University of Edinburgh

Paper Title: MISSING!

MISSING!

MISSING!

TUESDAY

Slot: 5

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Room name: 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; Iñaki Zabala Calvo; David Ogden
National Renewable Energy Laboratory; Sener

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; Jana Orszaghova; Hugh Wolgamot; Adi Kurniawan; Jørgen Hals Todalshaug
University of Western Australia; University of Western Australia, Blue Economy Cooperative Research Centre; University of Western Australia; University of Western Australia; CorPower Ocean

Paper Title: MISSING!

MISSING!

MISSING!

Room name: 2**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; Oregon State University; 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; António Maximiano; Riccardo Chini; Thomas Goulding; Guilherme Vaz

blueOASIS; blueOASIS; blueOASIS; oceanofresco; blueOASIS

Paper Title: [807] Wave Energy Integration for Offshore Aquaculture: MoorPower Tether Optimization Study

Abdulsalam Yousif Ali Musaad; Elie Al Shami; Alexandre Pichard; Miguel Santos Herran; Jonathan Fievez

Carnegie Technologies Spain; Carnegie Wave energy Ireland

Paper Title: MISSING!

MISSING!

MISSING!

Room name: 3

Session title: Wave device development and testing 1

Chair: Peter Frigaard, Aalborg University

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; Maynooth University; Maynooth University

Paper Title: [1027] The M4 Wave Energy Demonstration Project: Overview, impact and insight

Hugh Wolgamot; Christophe Gaudin; Peter Stansby; Adi Kurniawan; Wiebke Ebeling; Irene Penesis
University of Western Australia; UWA; University of Manchester; UWA; UWA; 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; University of Plymouth

Paper Title: MISSING!

MISSING!

MISSING!

Room name: 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; William Finnegan; Fergal O'Rourke; Jamie Goggins
University of Galway; University of Galway; Dundalk Institute of Technology; University of Galway

Paper Title: [710] Tidal turbine versus wind turbine drive train testing – synergies and challenges

Tobias Bauer; Georg Jacobs; Julian Röder; Maximilian Zweifel; Jakob Roth
MISSING!

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 Maria Viola
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 McCarthy; James A. Quinn; Marek Jan Munko; Dilum Fernando
The University of Edinburgh; The University of Edinburgh; The University of Edinburgh; The University of Edinburgh; The University of Edinburgh; The University of Edinburgh; The University of Edinburgh

Paper Title: MISSING!

MISSING!

MISSING!

Slot: 6

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Room name: 1

Session title: Wave hydrodynamic modelling 4

Chair: Giovanni Malara, Mediterranean 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; 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; University of Washington; University of Washington; University of Washington; University of Washington

Paper Title: [955] Stabilisation of Floating Platforms By Pumping Between Columns

David Apsley; Peter Stansby

University of Manchester; University of Manchester

Paper Title: [1000] Numerical analysis on the motion responses of two-body point absorber

Byung-Soo Kim; Yoon-Jin Ha; Jeong-Seok Kim; Jiyong Park

KRISO; KRISO; KRISO; KRISO

Room name: 2

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; Arianna Azzellino; Andrew B. Gill; Peter Sigray; Diego Vicinanza; Junio Fabrizio Borsani

Department of Engineering, University of Campania "Luigi Vanvitelli"; Civil and Environmental Engineering Department, Politecnico di Milano; Cefas, Centre for Environment, Fisheries and Aquaculture Science, Suffolk, England, UK; KTH, Royal Institute of Technology, Department of Engineering Mechanics/Marine Engineering, Sweden; Department of Engineering, University of Campania Luigi Vanvitelli; ISPRA, Rome

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; Griffith University; Griffith University

Paper Title: [758] Monitoring fish communities in offshore renewable energy: the SafeWAVE case study

Pedro Almeida Vinagre; Inês Machado; Luana Clementino; Miguel Amado; Guillermo Boyra; Ainhize Uriarte; Beatriz Sobradillo; Juan Bald

WavEC Offshore Renewables; WavEC Offshore Renewables; WavEC Offshore Renewables; WavEC Offshore Renewables; AZTI; AZTI; AZTI; AZTI

Paper Title: [810] The Importance of Empirical Particle Motion Measurements for Monitoring Underwater Noise from Wave Energy Converters

Carola Chicco; Francesco Niosi; Giuseppa Buscaino; Davide Issoglio; Elena Papale; Maria Ceraulo; Giuseppe Giorgi

Politecnico di Torino; Politecnico di Torino; CNR-IAS; Politecnico di Torino; CNR-IAS; CNR-IAS; Politecnico di Torino

Paper Title: [831] Innovative rapid modelling for tidal range scenarios

Joshua Mitchell; Anthony Chu; Julia Race; David Ingram; Ian Ashton

The Crown Estate, University of Edinburgh, University of Strathclyde, University of Exeter; The Crown Estate; The University of Strathclyde; The University of Edinburgh; The University of Exeter

Room name: 3

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; Delft University of Technology

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; Hafiz Ahsan Said; Edoardo Pasta

Politecnico di Torino; Maynooth University; Marine Offshore Renewable Energy Lab (MOREnergyLab), DIMEAS, Politecnico di Torino

Paper Title: [1054] Standards and Certification of Marine Energy Conversion Systems

Richard Williams; Winston D'Souza; Philip Beauchamp; Arielle Cardinal; Jonathan Colby; William Staby

Portland State University and IEC TC114; Lloyd's Register; PB Mechanical Consulting Services, LLC; National Renewable Energy Laboratory; Streamwise Development, LLC; 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: [1246] The Development of China's National Marine Test Sites and Field Testing Technology

Hainan Xia
MISSING!

Room name: 4

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; Benoît Gaurier; Grégory Germain; Guillaume Maurice
HydroQuest; Ifremer, RDT Research and Technological Development, F-62200 Boulogne-sur-Mer, France; Ifremer, RDT Research and Technological Development, F-62200 Boulogne-sur-Mer, France; HydroQuest

Paper Title: [817] A tool for visualising the control landscape of a passively pitched tidal turbine

Frederick Gibbs; Markus Mueller; Jeremy Smith; Mohammad Abusara; Selda Oterkus

University of Edinburgh; University of Edinburgh; QED Naval Ltd.; University of Exeter; Univeristy of Strathclyde

Paper Title: [835] Optimising Tidal Lagoon Design and Operations for Energy Generation

Jingjing Xue; Evans Paul; Nikolaos Spanakis; Matthew Allmark; Rebecca Jeffrey; Deri Lamb

Dr

Paper Title: [843] System Integration of an Instrumented Open-Source Tidal Energy Converter (OSTEC) Testbed

Parviz Sedigh; Mason Bichanich; Martin Wosnik; Aidan Bharath; Vincent Neary; Robert Cavagnaro; Kenneth Lannamann

University of New Hampshire – Atlantic Marine Energy Center (UNH-AMEC); University of New Hampshire – Atlantic Marine Energy Center (UNH-AMEC); University of New Hampshire – Atlantic Marine Energy Center (UNH-AMEC); National Renewable Energy Laboratory (NREL); Sandia National Laboratories (SNL); Pacific Northwest National Laboratory (PNNL)

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

Slot: 7

Room name: 1

Session title: Wave device development and testing 2

Chair: Deborah Greaves, Plymouth University

Paper Title: [715] Lobe-Tendon Anaconda: An evolution of the Anaconda concept

Anthony McDonald; Mark Prentice

Wave Venture; 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; Oregon State University; 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; Grégoire Corre; Gaspard Fourestier; Paul Tournant; Gaële Perret

GROUPE LEGENDRE; GROUPE LEGENDRE; GEPS TECHNO; LOMC, UMR 6294; LOMC, UMR 6294

Paper Title: [957] Experimental testing of a heterogeneous wave energy converter array

Pal Schmitt

Queen's University Belfast

Paper Title: MISSING!

MISSING!

MISSING!

Room name: 2

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; Seong Jong Bae; S.D.G.S.P. Gunawardane; Young-Ho Lee; Min Yoon

Korea National Maritime and Ocean University; Korea Maritime and Ocean University; Sri Lanka Institute of Information Technology; Korea Maritime and Ocean University; Korea Maritime and Ocean University

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; Pisindu Baddegamage; Kilwon Kim; Min Yoon

Korea Maritime and Ocean University; Korea Maritime and Ocean University; Korea Research Institute of Ships & Ocean Engineering; Korea Maritime and Ocean University

Paper Title: [857] Multiparametric optimization of the Middle Vanes of a counter-rotating axial impulse turbine for Oscillating Water Column devices

Aitor Vega-Valladares; Manuel Garcia-Diaz; Bruno Pereiras; Manabu Takao

University of Oviedo; University of Oviedo; University of Oviedo; Matsue College

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

Instituto Superior Técnico, IDMEC; Instituto Superior Técnico, IDMEC; Instituto Superior Técnico, IDMEC

Room name: 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

Center for Renewables and Energy, School of Engineering, Dundalk Institute of Technology, Dundalk, Co. Louth, Ireland;

Center for Renewables and Energy, School of Engineering, Dundalk Institute of Technology, Dundalk, Co. Louth, Ireland;

Center for Renewables and Energy, School of Engineering, Dundalk Institute of Technology, Dundalk, Co. Louth, Ireland

Paper Title: [750] Enhancing offshore hybridization via storage: Technical and safety consideration in Blue Economy projects

Elise Nanini-Maury; Aurore Castets; Lionel Nadau; Dominique Corbisier

ENGIE LABORELEC; ENGIE LABORELEC; ENGIE CRIGEN; ENGIE LABORELEC

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; Franscisco Correia da Fonseca

WavEC Offshore Renewables

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: [1225] Evaluating the Dynamic Response and Power Performance of a Floating Hybrid Wind-Wave Energy System

Vivek Francis; Martyn Hann; Midhun Chandran; Oluwamayowa Afolabi; Keri Collins; Aude Mulard; Deborah Greaves

University of Plymouth; University of Plymouth; University of Plymouth; University of Plymouth; University of Plymouth; AEON Energy Ltd; University of Plymouth

Room name: 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 Andersen; Dongyoung Kim; Vincent Neary; Martin Wosnik

University of New Hampshire; Sandia National Laboratories; Sandia National Laboratories; University of New Hampshire

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 Bichanich; Aidan Bharath; Martin Wosnik; Robert Raye; Parviz Sedigh; Charles Candon

University of New Hampshire - Atlantic Marine Energy Center; National Renewable Energy Laboratory; University of New Hampshire - Atlantic Marine Energy Center; National Renewable Energy Laboratory; University of New Hampshire - Atlantic Marine Energy Center; 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

Paper Title: MISSING!

MISSING!

MISSING!

Slot: 8
=====

Room name: 1

Session title: Wave device development and testing 3

Chair: Tony Lewis, Cork University

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; Chaminda Karunasena; Hadi Amlashi

University of Ruhuna; University of Ruhuna; 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

Paper Title: MISSING!

MISSING!

MISSING!

Room name: 2

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; İrem Yağmuroğlu; Bárður Joensen

Rize RTE University, Civil Engineering, Mechanics Department Rize/Türkiye; Department of Civil Engineering, İstanbul University-Cerrahpaşa, İstanbul, Türkiye; Faculty of Science and Technology, The University of the Faroe Islands, Torshavn, FO-100, Faroe Islands

Paper Title: [949] UNCERTAINTIES IN WAVE ENERGY POTENTIAL ESTIMATION: CASE STUDY AT MARELAB

Sara Russo; Pasquale Contestabile; Andrea Bardazzi; Diego Vicinanza; Claudio Lugni

Institute of Marine Engineering, National Research Council of Italy; University of Campania "Luigi Vanvitelli"; Institute of Marine Engineering, National Research Council of Italy; University of Campania "Luigi Vanvitelli"; University of Naples - Federico II

Paper Title: [969] Optimizing Design Load Case Reduction for Fatigue Assessment of Mooring Lines in Marine Renewable Energy Systems

Ander Martinez; Eguzkiñe Martinez; Iñigo Llavori; Markel Peñalba; José Gregorio Iglesias

Mondragon University; Mondragon University; Mondragon University; Mondragon University, Ikerbasque; MAREI, University of Plymouth

Paper Title: [988] Best sites for wave energy resources creating opportunities for low-cost e-fuel production

Rasul Satymov; Dmitrii Bogdanov; George Lavidas; Shona Pennock; Sarah Kluge; Christian Breyer; Benjamin Lehner

LUT University; LUT University; TU Delft; CorPower Ocean; Dutch Marine Energy Centre; LUT University; Dutch Marine Energy Centre

Paper Title: [1185] High-Fidelity Numerical Modeling and Experimental Measurement of Wave Fields in the Azores

Giacomo Dieci; Tiago Gomes; Antonio Maximiano; Guilherme Vaz; Eduardo Azevedo; Francisco Reis

blueOASIS; blueOASIS; blueOASIS; blueOASIS; Universidade dos Açores; Universidade dos Açores

Room name: 3

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

Integral Consulting Inc.; Integral Consulting Inc.; Integral Consulting Inc.; Integral Consulting Inc.; Future Island Impact

Paper Title: [967] Characterising crossflow tidal energy converter turbulent eddy propagation using a low-cost, fast-sampling turbulence probe

Elias Marchetti; Ian Benson; Alan Hunter; Anna Young

University of Bath; Queen's University Belfast; University of Bath; University of Bath

Paper Title: [977] A multi-scale analytical model for the performance of a tidal stream array in a tidal channel

Fei He; Yaling Chen; Athanasios Angeloudis; Christopher Vogel; Thomas Adcock

Department of Engineering Science, University of Oxford; School of Engineering, The University of Edinburgh; School of Engineering, The University of Edinburgh; Department of Engineering Science, University of Oxford; Department of Engineering Science, University of Oxford

Paper Title: [1011] High-Fidelity Tidal Current Modelling in Irish Sites to Inform the Feasibility of Novel Energy Use Cases

Md Ashkar Bin Sayeed; Fiona Devoy McAuliffe; Brendan Cahill; Patrick Cronin; Michael O'Shea

Civil, Structural, and Environmental Engineering, Structural and Hydro-Environmental Dynamics Research, School of Engineering and Architecture, University College Cork, Ireland; MaREI, SFI Research Centre for Energy, Climate and Marine, Environmental Research Institute, University College Cork, Ireland; Ocean Renewable Power Company (ORPC), Inc.; Ocean Renewable Power Company (ORPC), Inc.; Civil, Structural, and Environmental Engineering, Structural and Hydro-Environmental Dynamics Research, School of Engineering and Architecture, University College Cork, Ireland

Paper Title: MISSING!

MISSING!

MISSING!

Room name: 4

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

Mechanical Engineering/Dalhousie University; Mechanical Engineering/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

Department of Engineering Science, University of Oxford; Department of Engineering Science, University of Oxford;
Department of Engineering Science, 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

Paper Title: MISSING!

MISSING!

MISSING!

WEDNESDAY

Slot: 9

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Room name: 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; Oregon State University; Oregon State University; 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; Mediterranea University of Reggio Calabria; Mediterranea University of Reggio Calabria

Paper Title: [944] Sea Trialling the M4 Wave Energy Converter: Initial Hydrodynamic Performance Insights

Adi Kurniawan; Hugh Wolgamot; Guy McCauley; Matthaus Zering; Peter Stansby

The University of Western Australia; The University of Western Australia; The University of Western Australia; The University of Western Australia; The University of Manchester

Paper Title: [946] Toward defining wave prediction requirements for wave energy applications

Nataliia Sergiienko; Mathieu Cocho

PhD candidate

Paper Title: MISSING!

MISSING!

MISSING!

Room name: 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; 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; Delft university of technology

Paper Title: [840] A control-oriented modeling framework for wave energy converters

Gabriel Forstner; Tobias Glaser; Pierre Lourdais; Jørgen Hals Todalshaug

CorPower Ocean; Kreisel Electric; CorPower Ocean; CorPower Ocean

Paper Title: MISSING!

MISSING!

MISSING!

Room name: 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, The University of Edinburgh; Fergus Cuthill; Miguel Valdivia; Christopher Vogel; Conchur O' Bradaigh; Edward D. McCarthy

The University of Edinburgh; The University of Edinburgh; The University of Edinburgh; The University of Oxford; The University of Sheffield; The University of Edinburgh

Paper Title: [959] Tribological investigation of polyurethane materials for rack-and-pinion in Wave Energy Converter (WEC) systems

Ádám Kalácska

Soete Laboratory, Department of Electromechanical, Systems and Metal Engineering, Ghent University; Soete Laboratory, Department of Electromechanical, Systems and Metal Engineering, Ghent University; Dutch Wave Power; Dutch Wave Power; Soete Laboratory, Department of Electromechanical, Systems and Metal Engineering, Ghent University; Soete Laboratory, Department of Electromechanical, Systems and Metal Engineering, Ghent University

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), Department of Electronic Engineering, Maynooth University, Maynooth, Co. Kildare, Ireland; Centre for Ocean Energy Research (COER), Department of Electronic Engineering, Maynooth University, Maynooth, Co. Kildare, Ireland; Ocean Harvesting Technologies AB, Campus Gräsvik 28, 371 75 Karlskrona, Sweden; Centre for Ocean Energy Research (COER), Department of Electronic Engineering, Maynooth University, Maynooth, Co. Kildare, Ireland

Paper Title: [1045] Innovative Multi-Degradation Rigs: Fast-Tracking Material Validation for Resilient Offshore Renewable Energy

Giacomo Alessandri; Johan Lindén; Leandro de Oliveira; Kjell-Åke Andersson; Nuria Espallargas; Hamid Khanmohammadi; Christian von der Ohe

VGA srl; RISE Research Institutes of Sweden; RISE Research Institutes of Sweden; RISE Research Institutes of Sweden; Norwegian University of Science and Technology; Norwegian University of Science and Technology; 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

Room name: 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

School of Mechanical, Aerospace and Civil Engineering, University of Manchester, UK.; School of Engineering, 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: [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; Institute of Computing for Climate Science; Imperial College London; Imperial College London

Paper Title: MISSING!

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Paper Title: MISSING!

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MISSING!

Slot: 10
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Room name: 1

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; Niall McLean; Elva Bannon; David Forehand; Thomas Giles; Katie Smith; Laura-Beth Jordan; Thomas Davey
Wave Energy Scotland; Wave Energy Scotland; Wave Energy Scotland; University of Edinburgh; University of Edinburgh; University of Edinburgh; University of Edinburgh; University of Edinburgh; University of Edinburgh

Paper Title: [996] Wave amplification using a flexible floating water bladder for WEC enhanced performance

Pedro Lomonaco; Mike Plackett; Alex Sutherland; Solomon Yim
Oregon State University; M.J. Plackett & Associates; Oregon State University; Oregon State University

Paper Title: [1051] Experimental Scaling Challenges of Air Turbines for Oscillating Water Column Wave energy converters

Beatrice Fenu; João C. C. Henriques; Ander Zarketa Astigarraga; Yeraí Peña Sanchez; Markel Peñalba Retes

Politecnico di Torino; Instituto Superior Técnico de Lisboa; Mondragon University; Mondragon University; Mondragon University

Paper Title: [1052] Combining a wave tank with a robotized dry test rig for WEC evaluation

Dana Salar; Erik Hultman

Uppsala University; Uppsala University

Room name: 2

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; Yifei Han; Pedro Fornaro; Xi Xiao; John Ringwood

Centre for Ocean Energy Research, Maynooth University, Kildare, Ireland; Department of Electrical Engineering, Tsinghua University, Beijing, China; 1. Centre for Ocean Energy Research, Maynooth University, Kildare, Ireland. 2. Instituto LEICI, Universidad Nacional de La Plata, La Plata, Argentina.; Department of Electrical Engineering, Tsinghua University, Beijing, China; Centre for Ocean Energy Research, Maynooth University, Kildare, Ireland

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; Korea Research Institute of Ships and Ocean Engineering;
Korea Research Institute of Ships and Ocean Engineering; Korea Research Institute of Ships and Ocean Engineering;
Korea Research Institute of Ships and Ocean Engineering; Korea Research Institute of Ships and Ocean Engineering;
Korea Research Institute of Ships and Ocean Engineering; Korea Research Institute of Ships and Ocean Engineering;
Korea Research Institute of Ships and Ocean Engineering; 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; University of Hawai'i; University of Hawai'i; University of Hawai'i; University of Hawai'i; University of
Hawai'i; University of Hawai'i

Paper Title: [868] Optimized Grid Integration of Point Absorber Converters with Grid-forming Energy Storage System

Kemeng Chen; Zechuan Lin; Yifei Han; Xuanyi Zhu; Xuanrui Huang; Xi Xiao

Tsinghua University; Maynooth University; Tsinghua University; Tsinghua University; Beijing Sifang Automation Co. Ltd.;
Tsinghua University

Paper Title: MISSING!

MISSING!

MISSING!

Room name: 3

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; Politecnico di Torino; Politecnico di Torino; Politecnico di Torino; 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; Pacific Northwest National Laboratory; Pacific Northwest National Laboratory;
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; Pacific Northwest National Laboratory; Pacific Northwest National Laboratory;
Pacific Northwest National Laboratory; Pacific Northwest National Laboratory; Pacific Northwest National Laboratory

Paper Title: [1023] Wave Dragon wave-wind project

Erik Friis-Madsen; Kim Nielsen; Julia Fernandez Chozas; Sarah Krogh Iversen; Peter Frigaard

Wave Dragon; Aalborg University; Aalborg 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

University of Strathclyde; Strathclyde University

Room name: 4

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

[illegible]

Paper Title: [937] De-risking hydrokinetic turbine projects by towing tank tests

Francesco Salvatore; Massimo Falchi; Mohammad Rafiei; Francesca Magionesi; Patrick Cronin; Clement Courade; Conor Dillon
CNR-INM, Institute of Marine Engineering, National Research Council; CNR-INM, Institute of Marine Engineering, National Research Council; CNR-INM, Institute of Marine Engineering, National Research Council; CNR-INM, Institute of Marine Engineering, National Research Council; ORPC Ireland; ORPC Ireland; ORPC Ireland

Paper Title: [940] Passively pitching blades for tidal turbines: Experimental Demonstration

Puja Sunil; Kuba Frankowski; Anna Young; Riccardo Broglia; Edward McCarthy; Ignazio Maria Viola

University of Edinburgh; University of Edinburgh; University of Bath; Institute of Marine Engineering, National Research Council, Rome; University of Edinburgh; University of Edinburgh

Paper Title: MISSING!

MISSING!

MISSING!

Slot: 11

Room name: 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; Jesus Maria Blanco Ilzarbe; Joannes Berque; Iñigo Mendikoa; Erik Hultman; Dana Salar

UPV-EHU; UPV-EHU; Tecnalía; Upsala University; Upsala University

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; Nicolás Faedo; Demián García-Violini

Politecnico di Torino; Politecnico di Torino; Universidad Nacional de Quilmes, Departamento de Ciencia y Tecnología.

Paper Title: [1073] On the response of the U-Oscillating Water Column breakwater in the Port of Salerno for PTO installation

Alessandra Romolo; Vincenzo Fiamma; Giovanni Malara; Valentina Laface; Antonino Simone Spanò; Elena Valentino; Felice Arena

Department of Civil Engineering, Energy, Environment and Materials – Mediterranean University of Reggio Calabria; Mediterranean University of Reggio Calabria, ITALY; Mediterranean University of Reggio Calabria, ITALY; Mediterranean University of Reggio Calabria, ITALY; Wavenrgy.it; Port System Authority of the Central Tyrrhenian Sea , Salerno – Italy; Natural Ocean Engineering Laboratory (NOEL), Mediterranean University of Reggio Calabria, ITALY,

Paper Title: MISSING!

MISSING!

MISSING!

Room name: 2

Session title: Grid/off-grid integration, power take-off and control 2

Chair: Lei Zou, University of Michigan - Ann Arbor

Paper Title: [882] A Comparative study on basic design of hybrid storage architectures for grid-connected arrays of wave energy converters

Viola De Clerck; Hafiz Ahsan Said; Bruno Paduano; Edoardo Pasta

Politecnico di Torino; Maynooth University; Politecnico di Torino; Politecnico di Torino

Paper Title: [890] Symphony: The Ultimate Wave Energy Controller

Pedro Fornaro; Zechuan Lin; Eugenio M. gelos; John V/ Ringwood

Centre for Ocean Energy Research, National University of Ireland, Maynooth.

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; Marcos Blanco; Gustavo Navarro; Eduardo Rausell; Valentín Urda; Marcos Lafoz; Jose Ignacio Sarasúa; Guillermo Martínez; Juan Ignacio Pérez
CIEMAT; CIEMAT; CIEMAT; CIEMAT; CIEMAT; CIEMAT; UPM; UPM; UPM

Paper Title: MISSING!

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Paper Title: MISSING!

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Room name: 3

Session title: Co-location, hybridization and synergies in the Blue Economy 3

Chair: Jorge Camacho, PLOCAN

Paper Title: [1103] Modelling Floating Wind-Wave Energy Converters with Froude-Krylov Forces and Lagrangian mechanics

Matheus Costa; Jander Santos; Erivelton Nepomuceno
Maynooth University

Paper Title: [1111] On the Integration of Hydrogen in multipurpose wave energy platforms

JUAN PORTILLO; Guilherme Mourão
Laboratório Nacional de Energia e Geologia (LNEG); IDMEC, Instituto Superior Técnico, University of Lisbon

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; Marcio Junior Lacerda; Erivelton Nepomuceno

Centre for Ocean Energy Research, Department of Electronic Engineering, Maynooth University; School of Computing and Digital Media, London Metropolitan University; Hamilton Institute and the Centre for Ocean Energy Research, Department of Electronic Engineering, Maynooth University

Paper Title: MISSING!

MISSING!

MISSING!

Room name: 4

Session title: Tidal device development and testing 5

Chair: Jesus María Blanco, University of the Basque Country (UPV/EHU)

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; University of Oxford; 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; Queen's University Belfast

Paper Title: [961] Assessment of a floating platform for testing a crossflow tidal turbine

Carwyn Frost; Jan Dillenburger-Keenan; Patrick Cronin

Queens University Belfast; QUB; 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; University of Oxford; University of Oxford

Paper Title: MISSING!

MISSING!

MISSING!

Slot: 12

Room name: 1

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; Giuseppe Giorgi; Paulo Rosa-Santos; Francisco Taveira-Pinto; Giuliana Mattiazzo; Victor Ramos; Ermanno Giorcelli

Politecnico di Torino; Politecnico di Torino; a. Department of Civil Engineering and Georresources, Faculty of Engineering, University of Porto, Rua Dr. Roberto Frias s/n, 4200-465 Porto, Portugal b. Marine Energy and Hydraulic Structures Research Group, Interdisciplinary Center of Marine and Environmental Research (CIIMAR-LA), University of Porto, Port of Leixões Cruise Terminal. Av. General Norton de Matos s/n, 4450-208 Matosinhos, Portugal; a. Department of Civil Engineering and Georresources, Faculty of Engineering, University of Porto, Rua Dr. Roberto Frias s/n, 4200-465 Porto, Portugal b. Marine Energy and Hydraulic Structures Research Group, Interdisciplinary Center of Marine and Environmental Research (CIIMAR-LA), University of Porto, Port of Leixões Cruise Terminal. Av. General Norton de Matos s/n, 4450-208 Matosinhos, Portugal; Politecnico di Torino; a. Department of Civil Engineering and Georresources, Faculty of Engineering, University of Porto, Rua Dr. Roberto Frias s/n, 4200-465 Porto, Portugal b. Marine Energy and Hydraulic Structures Research Group, Interdisciplinary Center of Marine and Environmental Research (CIIMAR-LA), University of Porto, Port of Leixões Cruise Terminal. Av. General Norton de Matos s/n, 4450-208 Matosinhos, Portugal; Politecnico di Torino

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; Lígia Pinto
MARETEC, Instituto Superior Técnico, University of Lisbon, Av. Rovisco Pais, 1049-001 Lisboa (Portugal); MARETEC, Instituto Superior Técnico, University of Lisbon, Av. Rovisco Pais, 1049-001 Lisboa (Portugal); MARETEC, Instituto Superior Técnico, University of Lisbon, Av. Rovisco Pais, 1049-001 Lisboa (Portugal)

Paper Title: [1248] Power optimisation of a heaving buoy in a wave-enhancing contraction

Onno Bokhove; Harvey Thompson; Omar Naar; Peter Grieve; Jongrae Kim
School of Mathematics, University of Leeds, Leeds, LS2 9JT, UK

Paper Title: MISSING!

MISSING!

MISSING!

Room name: 2

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; Emma Cotter

Applied Physics Laboratory, University of Washington; Coastal Sciences Division, Pacific Northwest National Laboratory

Paper Title: [989] Supporting Marine Energy Project Developments in the U.S.: A Toolkit for Siting and Permitting

Sharon Kramer; Grace Chang; Zachary Barr; Cesar R. Castillo; Christopher Flanary

HT Harvey & Associates; Integral Consulting Inc.; Kearns & West; Sandia National Laboratories; Integral Consulting Inc.

Paper Title: [1105] Underwater Noise Monitoring of a Wave Energy Converter: Insights from the HiWave-5 Project in Aguçadoura, Portugal

Luana Clementino; Clara Rodrigues; Miguel Amado; Pedro Vinagre; Inês Machado; Quentin Geerinckx; Nikla Schmidt; Simone Teixeira; Juan Bald

WavEC - Offshore Renewables; WavEC Offshore Renewables; WavEC Offshore Renewables; WavEC Offshore Renewables; WavEC Offshore Renewables; CorPower Ocean; CorPower Ocean; CorPower Ocean; 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: MISSING!

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Room name: 3

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; Zi You Felix Ma; Gangqiang Li; Peter Stansby

University of Manchester; University of Manchester; École Centrale de Nantes; University of Manchester

Paper Title: [842] A novel two-point mooring for a floating vertical axis tidal turbine platform

Luke Friedl; Brad Buckham; Spencer Funk; Riley Richardson; Ignacio Beya Marshall; Ben Whitby; Blake Holowaty; Voytek Klaptocz

University of Victoria; University of Victoria; University of Victoria; University of Victoria; University of Victoria; 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; 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; Centre for Ocean Energy Research (COER), Maynooth University; Centre for Ocean Energy Research (COER), Maynooth University

Paper Title: MISSING!

MISSING!

MISSING!

Room name: 4

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; Pedro Fornaro; Colm Fitzgerald; John V. Ringwood

Centre for Ocean Energy Research (COER), National University of Ireland, Maynooth; (1) Centre for Ocean Energy Research (COER), National University of Ireland, Maynooth; and (2) Instituto LEICI, Universidad Nacional de La Plata (UNLP) - CONICET, Argentina; Centre for Ocean Energy Research (COER), National University of Ireland, Maynooth; Centre for Ocean Energy Research (COER), National University of Ireland, Maynooth

Paper Title: [1013] Genetic algorithm based co-design of wave energy converter power take-off, floater geometry, and control

Matthew Onslow; Adam Stock
University of Strathclyde; Heriot-Watt University

Paper Title: [1036] Wave Energy Converter Power Take-off for the Albany M4; Dry Test and Initial Deployment

Judith Apsley; Nuwantha Fernando; Akila Jayasinghe; Xiaotao Zhang; Peter Stansby; Hugh Wolgamot; Christophe Gaudin; Adi Kurniawan; Zifan Lin
University of Manchester; RMIT University; RMIT Melbourne; University of Manchester; University of Manchester; University of Western Australia; University of Western Australia; University of Western Australia; University of Western Australia

Paper Title: MISSING!

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Paper Title: MISSING!

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THURSDAY**Slot: 13**

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Room name: 1**Session title: Wave hydrodynamic modelling 6****Chair: Jørgen Hals Todalshaug, Norwegian University of Science and Technology**

Paper Title: [1007] Effects of Inclination and Cross-Sectional Variations on Resonance Characteristics of Oscillating Water Columns

Aya Kanai; Mitsumasa Iino

Ashikaga University; 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; Bonaventura Tagliafierro; Iván Martínez-Estévez; Giovanni Malara; Felice Arena; Alejandro JC Crespo; Moncho Gómez Gesteira

University School for Advanced Studies (IUSS) Pavia, Italy; Dept. of Electrical Engineering, Uppsala Universitet, Uppsala, Sweden; EPHYSLAB, CIM-Uvigo, Universidade de Vigo, Ourense, Spain; Natural Ocean Engineering Laboratory (NOEL), "Mediterranea" University of Reggio Calabria, Italy; Natural Ocean Engineering Laboratory (NOEL), "Mediterranea" University of Reggio Calabria, Italy; EPHYSLAB, CIM-Uvigo, Universidade de Vigo, Ourense, Spain; EPHYSLAB, CIM-Uvigo, Universidade de Vigo, Ourense, Spain

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

Paper Title: MISSING!

MISSING!

MISSING!

Room name: 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; CIEMAT; CIEMAT; CIEMAT; CIEMAT; CIEMAT; CIEMAT; 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, IDMEC; INESC-ID; Instituto Superior Técnico, IDMEC; Instituto Superior Técnico, IDMEC

Paper Title: [1206] Modular electrical generator power take off system for wave - MEGA WAVE PTO

Markus Mueller; Miguel Vicente; Paula Bastos; Ana Brito e Melo; Joseph Burchell; Michael Galbraith; Giorgos Skarmoutsos; Syidy Ab Rasid; Craig Britton; Konstantinos Gyftakis; Marco Fontana; Rocco Vertechy; Henry Jeffrey; David Forehand; Michael Merlin; Julian Roeder; Maximilian Zweifel; Paul Brewster; Chris Retzler; Miguel Santos Herran

University of Edinburgh; WavEC, Portugal; WavEC; WavEC, Portugal; CGEN Engineering, UK; CGEN Engineering; University of Edinburgh, UK; University of Edinburgh, UK; Supply Design Ltd, UK; TU Crete, Greece; Scuola Superiore Sant'Anna Pisa; Cheros Engineering, Italy; University of Edinburgh; University of Edinburgh, UK; University of Edinburgh, UK; RWTH Aachen; RWTH Aachen, Germany; Sea Potential, Ireland; Mocean Energy, UK; CETO Wave Energy Ireland Ltd.

Paper Title: MISSING!

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Paper Title: MISSING!

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Room name: MISSING!

Session title: MISSING!

Chair: MISSING!

Paper Title: MISSING!

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Paper Title: MISSING!

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Paper Title: MISSING!

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Paper Title: MISSING!

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Paper Title: MISSING!

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Room name: 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; UCSD; UCSD

Paper Title: [877] Sea trials of the Seaturns 1:4 scale wave energy converter

Martin Träsch; Arthur Chauillac; Vincent Perier; Michel Répécaud; Gabriel Canteins; Vincent Tournier
IFREMER; Seaturns; IFREMER; IFREMER; Seaturns; 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

PEAK LLC

Paper Title: MISSING!

MISSING!

MISSING!

Slot: 14

Room name: 1

Session title: Wave hydrodynamic modelling 7

Chair: Alessandra Romolo, Mediterranean University of Reggio Calabria

Paper Title: [1113] Automated Design Exploration of the TALOS Wave Energy Converter Using the TOP-WEC Framework

David Ogden; Salman Husain; George Aggidis; Wanan Sheng; Aidan Bharath; Jochem Weber

NREL; NREL; Lancaster University; NREL; NREL

Paper Title: [1190] Comparing Numerical Models of a Floating Oscillating Water Column Wave Energy Converter

Jeff Grasberger; Jorge Leon-Quiroga; Mohamed Shabara; Markel Peñalba; Beatrice Fenu; Yerai Peña-Sanchez

Sandia National Labs; Sandia National Laboratories; National Renewable Energy Laboratory; Mondragon University; Mondragon University; 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; National Taiwan Ocean University; 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: MISSING!

MISSING!

MISSING!

Room name: 2

Session title: Electrical Generators 2

Chair: Markus Mueller, University of Edinburgh

Paper Title: [839] Investigation of Novel Designs of Linear Generators Based on Transverse-Flux Machines for Wave Energy Conversion Systems

Oleksii Duniev; Andrii Yehorov; Andrii Masliennikov; Larysa Shylkova; Mario Stamann; Rupert Gouws; Oleksandr Dobzhanskyi

Associate Professor of the "Electrical Machines" Department at National Technical University "Kharkiv Polytechnic Institute"; Head of the "Electrical Machines" Department at National Technical University «Kharkiv Polytechnic Institute»; Associate Professor of the "Electrical Machines" Department of National Technical University "Kharkiv Polytechnic Institute". ; Associate Professor of the "Electrical Machines" Department of National Technical University "Kharkiv Polytechnic Institute"; Dr.-Ing., Research Assistant at the Chair of Electrical Drive Systems at Otto-von-Guericke University Magdeburg; Professor of School of Electrical, Electronic and Computer Engineering, North-West University, Potchefstroom; Sr. Engineer, 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, IDMEC; INESC-ID; Instituto Superior Técnico, IDMEC; Instituto Superior Técnico, IDMEC

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; Marcos Blanco; Gustavo Navarro; Javier Munilla; Luis Antonio Gonzalez; Carlos Hernando; Carlos Gil; Rafael Iturbe; Gustavo Sarmiento; Luca Soldati; Aleix Jesus Arenas; Marco Breschi; Amalia Ballarino

CIEMAT; CIEMAT; CIEMAT; CIEMAT; CIEMAT; CYCLOMED; CYCLOMED; ANTEC MAGNETS; SUPRASYS; ASG; WEDGE GLOBAL; UNIVERSITY OF BOLOGNA; CERN

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

Paper Title: MISSING!

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MISSING!

Room name: 3

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<!--EndFragment -->

Ari Athair; Aidan Hunt; Han-Wen Chi; Owen Williams

University of Washington; University of Washington; University of Washington

Paper Title: [1001] Blade root force measurements on vertical axis tidal turbine

Robin Linant; Gregory Germain; Benoît Gaurier; Christophe Penisson; Guillaume Maurice
IFREMER; IFREMER; IFREMER; HydroQuest; HydroQuest

Paper Title: [1034] Hinged connected platforms for floating tidal turbines

Abel Arredondo-Galeana; Yongqiang Chen; Saishuai Dai; Xiantao Zhang; Feargal Brennnannan

University of Strathclyde; State Key Laboratory of Ocean Engineering, Shanghai Jiao Tong University; University of Strathclyde; State Key Laboratory of Ocean Engineering, Shanghai Jiao Tong University

Paper Title: [1062] Direct-Driven Blade-Embedded Pitch Actuator for High Dynamic Pitching Applications

Adhithiyar Jayaprakash; Stefan Hoerner; Roberto Leidhold

Otto-von-Guericke-University Magdeburg; Laboratoire des Écoulements Géophysiques et Industriels, Grenoble; Otto-von-Guericke-University Magdeburg

Paper Title: MISSING!

MISSING!

MISSING!

Room name: 4

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; Mona Shayegan; Marco Di Benedetto; Francesco Salvatore

CNR-INM, Institute for Marine Engineering, National Research Council, Italy; Roma Tre University, Italy; Roma Tre University, Italy; CNR-INM, Institute for Marine Engineering, National Research Council, Italy

Paper Title: [963] Optimal control of tidal barrages considering economic factors

Agustina Skiarski; Nicolas Faedo; John Ringwood

COER, Maynooth University; Politecnico di Torino; Maynooth University

Paper Title: [1095] Power Take-Off Design, Integration and Commissioning of an Instrumented Open-Source Tidal Energy Converter (OSTEC) Testbed

Parviz Sedigh; Robert Cavagnaro; Aidan Bharath; Vincent Neary; Mason Bichanich; Martin Wosnik

University of New Hampshire– Atlantic Marine Energy Center (UNH-AMEC); Pacific Northwest National Laboratory (PNNL); National Renewable Energy Laboratory (NREL); Sandia National Laboratories (SNL); University of New Hampshire – Atlantic Marine Energy Center (UNH-AMEC); University of New Hampshire – Atlantic Marine Energy Center (UNH-AMEC)

Paper Title: MISSING!

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Slot: 15

Room name: 1

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 Russo; Luis Daniel Luna Anguilar; Andrea Bardazzi; Diego Vicinanza; Claudio Lugni

Institute of Marine Engineering, National Research Council of Italy; University of Campania "Luigi Vanvitelli"; Institute of Marine Engineering, National Research Council of Italy; University of Campania "Luigi Vanvitelli"; 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

Marine Offshore Renewable Energy Lab (MOREnergyLab), DIMEAS, Politecnico di Torino; 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; Politecnico di Torino; Politecnico di Torino

Paper Title: MISSING!

MISSING!

MISSING!

Room name: 2

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

Paper Title: [889] A machine learning model for 2D significant wave height forecasts around Scotland

Victoria Martí Barclay; Bahareh Kamranzad

University of Strathclyde

Paper Title: [941] Analysis of Weather Windows and Impacts of Time to Repair on Device Availability at Two Wavepiston Deployment Sites

Colm J. Fitzgerald; Eugenio Gelós; Emiel Schut; Steen Grønkjær Thomsen; John Ringwood

Maynooth University; Maynooth University; Wavepiston; Wavepiston; Maynooth University

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

Dept. of Harbor & River EngineeringNational Taiwan Ocean UniversityKeelung, 202, Taiwan

Paper Title: MISSING!

MISSING!

MISSING!

Room name: 3

Session title: Tidal resource characterization 3

Chair: AbuBakr Bahaj, University of Southampton

Paper Title: [1026] Comparing satellite based tidal resource assessment

Daniela Vignali

MISSING!

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

Paper Title: [1092] Large Eddy Simulation of an Energetic Tidal Strait with Device-Scale Turbulence

Angus Creech; Adrian Jackson; Richard Karsten; Alex Hay; Justin McMillan

Acadia University; Edinburgh Parallel Computing Centre; Acadia University; Dalhousie University; Fisheries and Oceans Canada

Paper Title: MISSING!

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Paper Title: MISSING!

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Room name: 4

Session title: Station-keeping, moorings and foundations 3

Chair: Tim Warren, Blackfish Engineering

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; Mondragon Unibertsitatea; Mondragon Unibertsitatea; Mondragon Unibertsitatea;
Mondragon Unibertsitatea

Paper Title: [991] Design and Validation for OE35 mooring system

chenyu zhao; Lars Johanning
University of Plymouth; university of Plymouth

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

Nicholas Kaufmann; Penny Jeffcoate; Nick Cresswell; Matteo Ciantia
SCHOTTEL HYDRO GmbH; SCHOTTEL Marine Technologies; SCHOTTEL Marine Technologies; University of Dundee

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

Amadeu Deu
GEM

Paper Title: MISSING!

MISSING!

MISSING!

Slot: 16

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Room name: 0

Session title: Plenary Session 3

Chair: MISSING!

Paper Title: New Projects at Fundy Ocean Research Centre for Energy (FORCE)

Lindsay Bennett

MISSING!

Paper Title: AWTEC Conference announcement

Pham Tan Thi AWTEC 26 Chairman

MISSING!

Paper Title: PAMEC Conference announcement

Bruce Cameron PAMEC 26 Chairman

MISSING!

Paper Title: EWTEC Executive Board Chairman Address

Cameron Johnstone

MISSING!

Paper Title: Marine Energy Policy in Portugal

Jean Barroca Secretário de Estado Adjunto e da Energia

MISSING!