

| Wednesday September 6 |   |  |   |     |  |                          |   |                         |             |
|-----------------------|---|--|---|-----|--|--------------------------|---|-------------------------|-------------|
| 08:00-09:00           | Registration<br>(Main Hall)   |  |   |     |  | 08:00-09:00              |   |                         |             |
|                       |   |  |   |     |  |                          |   |                         |             |
| 09:00-10:30           | Oral presentations  | Baroja/<br>Wave device development and testing   | Martyn Hann   | 291 | Simulations of extreme wave load on an oscillating water column wave energy converter  | Nhu Nguyen               | 09:00-09:15   |                         |             |
|                       |   |  |   | 298 | On the survivability of WECs through submergence and passive controllers   | Elie Al Shami            | 09:15-09:30   |                         |             |
|                       |   |  |   | 393 | A probabilistic framework for fatigue damage of lift based wave energy converters  | Abel Arredondo-Galeana   | 09:30-09:45   |                         |             |
|                       |   |  |   | 382 | Preliminary design of an OWC wave energy converter battery charger   | D.N. Ferreira            | 09:45-10:00   |                         |             |
|                       |   |  |   | 540 | Development & performance enhancement of an AUV wave-charging system   | Brian Rosenberg          | 10:00-10:15   |                         |             |
|                       |   |  |   |     |  | 550                      | A methodology to measure the energy flux captured by a submerged U-OWC by using temperature sensors | Luana Gumari            | 10:15-10:30 |
|                       |   | Laboa/<br>Tidal device development and testing   | Gustavo Esteban   | 137 | CFD analysis of hydrodynamic force on a horizontal axis tidal turbine  | Kai Xu                   | 09:00-09:15   |                         |             |
|                       |   |  |   | 150 | Dynamic Responses of a 1:5-Scale Ocean Current Energy Converter  | Shun-Han Yang            | 09:15-09:30   |                         |             |
|                       |   |  |   | 328 | The Development of a passive blade-pitch mechanism to reduce the loads on a tidal turbine in high-flow conditions  | Thomas Summers           | 09:30-09:45   |                         |             |
|                       |   |  |   | 348 | Effects of non-isotropic blockage on a tidal turbine modeled with the Actuator-Line method   | Enzo Mascrier            | 09:45-10:00   |                         |             |
|                       |   |  |   | 400 | Intracycle Control Sensitivity of Cross-Flow Turbines  | Ari Athair               | 10:00-10:15   |                         |             |
|                       |   |  |   |     |  | 402                      | Development of an Unmanned Mobile Current Turbine Platform  | Manhar Dhanak           | 10:15-10:30 |
|                       |   | Arriaga/<br>Tidal resource characterization      | Cameron Johnstone   | 258 | Validation of the energy resource assessment with experimental data for the site selection of a tidal turbine in the Tagus River estuary   | Bénédicte Hood           | 09:00-09:15   |                         |             |
|                       |   |  |   | 302 | On tidal array layout sensitivity to regional and device model representation  | Connor Jordan            | 09:15-09:30   |                         |             |
|                       |   |  |   | 457 | Resource assessment using a combination of seabed mounted and semi-stationary vessel-mounted ADCP measurements   | Larissa Perez            | 09:30-09:45   |                         |             |
|                       |   |  |   | 228 | Measurements of tidal flow variability in Ramsey Sound, Penbrokeshire  | Jon Miles                | 09:45-10:00   |                         |             |
|                       |   |  |   | 171 | Investigation of Low Order Parameters Affecting Tidal Stream Energy Resource Assessments   | Misha Patel              | 10:00-10:15   |                         |             |
|                       |   |  |   |     |  | 178                      | Mapping the Unresolved Tidal Resource in Estuaries  | Matt Lewis              | 10:15-10:30 |
|                       |   | Oteiza/EIA                                       | Juan Bald   | 187 | Acoustic Characterization around the CalWave Wave Energy Converter   | Kaustubha Raghukumar     | 09:00-09:15   |                         |             |
|                       |   |  |   | 214 | A conditional probabilistic encounter-impact model for fish-turbine interactions   | Jezella Peraza           | 09:15-09:30   |                         |             |
|                       |   |  |   | 220 | Siting tidal energy projects through resource characterization and environmental considerations  | Andrea Copping           | 09:30-09:45   |                         |             |
|                       |   |  |   | 623 | Automated detection of wildlife in proximity to marine renewable energy infrastructure using machine learning of underwater imagery  | Mckenzie Love            | 09:45-10:00   |                         |             |
|                       |   |  |   | 221 | Choose Your Own Marine Energy Adventure Game: Collision Risk   | Lenaig Hemery            | 10:00-10:15   |                         |             |
|                       |   |  |   |     |  | 284                      | Measurements of the wake from a floating tidal energy platform                                      | Maricarmen Guerra Paris | 10:15-10:30 |
| 10:30-11:00           | Refreshments, networking & posters exhibition (Terrace and Chillida room) |  |   |     |  | 10:30-11:00              |   |                         |             |
| 11:00-12:30           | Oral presentations  | Baroja/<br>Wave device development and testing   | Jochen Weber  | 270 | Bolt/nut prevention in the generator of a direct drive wave energy converter   | Nick Baker               | 11:00-11:15   |                         |             |
|                       |   |  |   | 330 | Hydro-elastic interaction of polymer materials with regular waves  | Krishnendu Puzhukkil     | 11:15-11:30   |                         |             |
|                       |   |  |   | 380 | Degrees of Freedom Effects on a Laboratory Scale WEC Point Absorber  | Courtney Beringer        | 11:30-11:45   |                         |             |
|                       |   |  |   | 155 | Effects of projected wave climate changes on the sizing and performance of OWCs: a focus on the Mediterranean and Atlantic European coastal waters                                       | Irene Simonetti          | 11:45-12:00   |                         |             |
|                       |   |  |   | 211 | A multi-PTO Wave Energy Converter for Low Energetic Seas: Ensenada Bay Case  | Paulino Meneses Gonzalez | 12:00-12:15   |                         |             |
|                       |   |  |   | 216 | Graphene oxide reinforced room-temperature-vulcanising elastomers for flexible wave energy converters  | Xinyu Wang               | 12:15-12:30   |                         |             |
|                       |   | Laboa/<br>Tidal device development and testing   | Iñigo Bidaguren   | 418 | Design, Manufacture and Testing of an Open-Source Benchmark Composite Hydrokinetic Turbine Blade   | Miguel Gonzalez-Montijo  | 11:00-11:15   |                         |             |
|                       |   |  |   | 456 | Wake characterization of tidal turbines in the Pentland Firth using vessel-mounted ADCP measurements   | Marion Huchet            | 11:15-11:30   |                         |             |
|                       |   |  |   | 553 | Tidal Turbine Benchmarking Project: Stage I - Steady Flow Experiments  | S.W. Tucker Harvey       | 11:30-11:45   |                         |             |
|                       |   |  |   | 574 | Tidal Turbine Benchmarking Project: Stage I - Steady Flow Blind Predictions  | R.H.J. Wilden            | 11:45-12:00   |                         |             |
|                       |   |  |   | 567 | On the design of a small scale tidal converter for long time deployment at sea   | Damiano Alizzio          | 12:00-12:15   |                         |             |
|                       |   |  |   |     |  |                          | 12:15-12:30   |                         |             |
|                       |   | Arriaga/<br>Tidal resource characterization      | Vincenzo Nava   | 323 | Influence of the spatial variation of upstream velocity on a vertical-axis tidal turbine performance   | Lilia Flores Mateo       | 11:00-11:15   |                         |             |
|                       |   |  |   | 339 | Tracking a large vortex at a tidal power site  | Philippe Mercier         | 11:15-11:30   |                         |             |
|                       |   |  |   | 577 | Overview of Resource and Turbine Modelling in the Tidal Stream Industry Energiser project: TIGER   | Edward MacKay            | 11:30-11:45   |                         |             |
|                       |   |  |   | 165 | Evaluating the performance of turbulence closure models for tidal stream resource characterization   | Zhaoping Yang            | 11:45-12:00   |                         |             |
|                       |   |  |   | 296 | Tidal turbine wake characterization by vessel-mounted ADCP data analysis   | Pablo Garcia Novo        | 12:00-12:15   |                         |             |
|                       |   |  |   | 299 | Estimation and characterisation of the wave-induced turbulent kinetic energy and turbulent dissipation from ADCP data  | Clément Calvino          | 12:15-12:30   |                         |             |
| 12:30-14:00           | Lunch & posters exhibition<br>(Terrace and Chillida room)                 |  |   |     |  | 12:30-14:00              |   |                         |             |
| 14:00-15:30           | Oral presentations  | Baroja/<br>Wave device development and testing   | Iñigo Albaina   | 263 | A Dual Hardware-In-the-Loop (DHIL) platform for testing and validation of WEC subsystems   | Giacomo Alessandri       | 14:00-14:15   |                         |             |
|                       |   |  |   | 430 | Hardware-in-the-loop testing framework for active accumulator wave energy converters   | Chen Zeng                | 14:15-14:30   |                         |             |
|                       |   |  |   | 354 | Multi wave absorber platform design, modelling and testing : Investigating the integration of multiple wave energy absorbers into a floating offshore wind platform considering a future | Nial McLean              | 14:30-14:45   |                         |             |
|                       |   |  |   | 481 | Analysis of data from the full-scale prototype testing of the WASP – A novel wave measuring buoy   | Brendan Walsh            | 14:45-15:00   |                         |             |
|                       |   |  |   | 484 | Open Sea Trial of a Wave-Energy Converter at Tutuorin Port – Challenges  | Abdus Samad              | 15:00-15:15   |                         |             |
|                       |   |  |   | 576 | Test rig for submerged transmissions in wave energy converters as a development tool for dynamic sealing systems   | Anthon Jonsson           | 15:15-15:30   |                         |             |
|                       |   | Arriaga/<br>Tidal resource characterization      | Luke Blunden  | 390 | Turbine fatigue load prediction from field measurements of waves and turbulence  | Hannah Mullings          | 14:00-14:15   |                         |             |
|                       |   |  |   | 428 | Development of a Tool to Optimise Tidal Stream Energy Sites  | Paul Evans               | 14:15-14:30   |                         |             |
|                       |   |  |   | 432 | Principles of ADCP deployment methodologies  | Penny Jeffcoat           | 14:30-14:45   |                         |             |
|                       |   |  |   | 467 | Assessing wave-turbulence separation from ADCP measurements with artificial flow data  | Michael Togneri          | 14:45-15:00   |                         |             |
|                       |   |  |   | 478 | Multi-criteria analysis to evaluate tidal energy potential in France   | Florian Castillo         | 15:00-15:15   |                         |             |
|                       |   |  |   | 563 | Improved Modelling of Vertical Velocity Profiles at a Tidal Energy Site  | Lilli Enders             | 15:15-15:30   |                         |             |
|                       |   | Oteiza/<br>Environmental impact and appraisal    | Andrea Copping  | 303 | SafeWAVE The contribution of the SafeWAVE EU project to the future development of ocean energy   | Juan Bald                | 14:00-14:15   |                         |             |
|                       |   |  |   | 326 | ITSASDRONE, an autonomous marine surface drone for fish monitoring around wave energy devices  | Ainhize Uriarte          | 14:15-14:30   |                         |             |
|                       |   |  |   | 600 | Empowering communities to participate in marine energy planning and development  | Grace Chang              | 14:30-14:45   |                         |             |
|                       |   |  |   | 374 | Assessing the effect of onshore and offshore Wave Energy Converters on seafloor integrity combining image-based and acoustic methods   | Iñigo Muxika             | 14:45-15:00   |                         |             |
|                       |   |  |   | 554 | Effects of the spacing between two hydrokinetic turbines on the bedforms by numerical simulations  | Fatima Khaled            | 15:00-15:15   |                         |             |
|                       |   |  |   | 675 | Underwater noise impact assessment of a wave energy converter in the northern Atlantic (Spain)   | José Antonio Garcia      | 15:15-15:30   |                         |             |
| 15:30-16:00           | Refreshments, networking & posters exhibition (Terrace and Chillida room) |  |   |     |  | 15:30-16:00              |   |                         |             |
| 16:00-17:30           | Side events   | Mitxelena/Side event 7                           | "SUPPORTING THE FUTURE OF OCEAN ENERGY HERE AND NOW; A GLIMPSE OF BASQUE PUBLIC INITIATIVES TO FOSTER SECTOR SCALE-UP" (by EVE)             |     |  | 16:00-17:30              |   |                         |             |
|                       |   | Baroja/Side event 8                              | Wave Energy Converter Simulator (WEC-Sim) (by SANDIA LAB. -WEC-SIM TEAM-)   |     |  | 16:00-17:30              |   |                         |             |
|                       |   | Arriaga/Side event 9                             | "Instrumentation<br>Instrumentation for Environmental Monitoring around Marine Energy Devices" (by Coastal Science Division-PNNL and WavEC) |     |  | 16:00-17:30              |   |                         |             |
| 20:00-22:00           | Social programme  | Gala Dinner<br>(Atrium of the Guggenheim Museum) |   |     |  |                          | 20:00-22:00   |                         |             |