

PRELIMINARY PROGRAMME for the 15th European Wave & Tidal Energy Conference



	Day 1 Sunday September 3	Day 2 Monday September 4			Day 3 Tuesday September 5			Day 4 Wednesday September 6			Day 5 Thursday September 7			Day 6 Friday September 8					
08:00-08:30					Registration			Registration			Registration				08:00-08:30				
08:30-09:00		Registration (Main Hall)			(Main Hall)			(Main Hall)			(Main Hall)				08:30-09:00				
09:00-09:30	Bus departure to Getxo		(Wall	пан		Oral	Oral	Oral	Oral	Oral	Oral	Oral	Oral	Oral	Oral	Oral	Oral		09:00-09:30
09:30-10:00	Regatta					presentation WDD	presentation TDD	presentation WHM	presentation THM	presentation WDD	presentation TDD	presentation TRC	presentation EIA	presentation WDD	presentation GPC	presentation WRC	presentation ESP		09:30-10:00
10:00-10:30		Opening Ceremony (Mitxelena Auditorium)													10:00-10:30				
10:30-11:00				,					Refre	eshments, networking & posters exhibition (Terrace and Chillida			room)			Social programme Guided tour through the			
11:00-11:30			Keynote lectur	es + JRL-ORE		Oral presentation	Oral presentation	Oral presentation	Oral	Oral	Oral presentation	Oral	Oral	Oral presentation	Oral presentation	Oral presentation	Oral presentation	river by BILBOATS	11:00-11:30 11:30-12:00
11:30-12:00 12:00-12:30	Regatta La mar en calma Sailing		(Mitxelena .	Auditorium)		WDD	TDD	WHM	THM	WDD	TDD	TRC	EIA	WDD	GPC	WRC	ESP		12:00-12:30
12:30-12:30	School in Getxo (10:00-15:00h)																		12:30-13:00
13:00-13:30										nch									13:00-13:30
13:30-14:00									(Terrace and	Cnillida room)									13:30-14:00
14:00-14:30																			14:00-14:30
14:30-15:00	Bus returning to Bilbao	Oral presentation	Oral presentation	Oral presentation	Oral presentation	Oral presentation	Oral presentation	Oral presentation	Oral presentation	Oral presentation	Oral presentation	Oral presentation	Oral presentation	Oral presentation	Oral presentation	Oral presentation	Oral presentation		14:30-15:00
15:00-15:30		WHM	ONM	SMM	GPC	WDD	TDD	WHM	THM	WDD	TDD	TRC	EIA	WDD	GPC	WRC	ESP		15:00-15:30
15:30-16:00					Refre	shments, netwo	orking & posters exhibition (Terrace and Chillida room)			Closing Ceremony				15:30-16:00					
16:00-16:30																			16:00-16:30
16:30-17:00		Side event 1	Side event 2	Side event 3		Side event 4	Side event 5	Side event 6		Side event 7	Side event 8	Side event 9							16:30-17:00
17:00-17:30																			17:00-17:30
17:30-18:00	2 Buses departing to	Onel	01		Oral	Oral	01	Oral	Oral						Technic	cal visits:			17:30-18:00
	Olatua Building Getxo Cruise Terminal every 30	Oral presentation WHM	Oral presentation SMF	Oral presentation SMM	presentation GPC	presentation WDD	Oral presentation SMM	presentation WHM	presentation THM						Option 1:	MUTRIKU			18:00-18:30
18:30-19:00	minutes (around 6 buses)	VVF1IVI	SWIF		GFC	WDD	Sivilvi	VVITIVI	I FIIVI						Option 2	2: BIMEP			18:30-19:00
19:00-19:30							Technical Cor	nmittee Meeting											19:00-19:30
19:30-20:00	Welcome Reception						(Elhuy	ar room)											19:30-20:00
20:00-20:30	(Olatua Building Getxo																		20:00-20:30
20:30-21:00	Cruise Terminal)		Social pro				(Track Directors Dinner)			Opening of the galleries of the Museum (exclusive for Delegates)						•	20:30-21:00		
21:00-21:30	Registration available						(Track Dire												21:00-21:30
21:30-22:00	All D													(Exe	ecutive Board N	Meeting and Din	ner)		21:30-22:00
22:00-22:30	All Buses returning to Bilbao			15th/	, 2023					/4/		Dinner	(m)						22:00-22:30
22:30-23:00				EUROPOON I	tec		BILBA			(At	triuin of the Gug	ggenheim Museu	un)				22:30-23:00		
23:00-23:30				Energy Con	ference Series	3 ^{ra} -7 th SEI	PTEMBER 2	2023											23:00-23:30
Colour code:	Olatua Building	Mitxelena	(440 pax)	Maiı	n Hall	Barandiara	án (16 pax)	Elhuyar	(24 pax)	Chillida	(220 m2)	Oteiza ((60 pax)	Terrace (80	0+400 m2)	Baroja (160 pax)	Laboa (110 m2)	Arriaga (60 pax)
			amic modelling			Wave device d						aintenance and o		3				olitical aspects of ocean en	ergy
Tracks:			namic modelling Il impact and ap			Grid integration, power take-off and control Wave resource characterization					evelopment and characterization		SMF: Station-keeping, moorings and foundation SMM: Structural mechanics - materials, fatigue,						



-10:00					Registration (Main Hall)		
			Jesús M. Blanco		Local Committee Chairman	10:00-10:10	
Ор	pening		Cameron Johnstone	1	EWTEC Executive Board Chair	10:10-10:20	
00-10:50 Cere	remony	Mitxelena Auditorium			Local Committee Chairman	10:20-10:30	
			Gorka Moreno		Vicerector campus UPV/EHU	10:30-10:40	
Ke	eynote		Arantxa Tapia		Basque Government	10:40-10:50	
00 42.20 lec	itxelena	Mitxelena Auditorium	Iñigo Losada		IH-Cantabria	11:00-11:40	
	ditorium) RL-ORE	Mitxelena Auditorium	Andrew Scott Eider Robles		Orbital Marine Power JRL-ORE	11:40-12:20 12:20-12:30	
0-12.30 JRI	KL-OKE	MICCORDIA Additorium	Eldel Nobles			12.20-12.30	
0-14:00					unch & posters exhibition Ferrace and Chillida room)		
		Room /Track	Chairman	Paper ID	Mumarical modelling of a box tune and bottom datesh	Title	Presenter
				142	device: a comparison with experimental data and between the standard studies of the effects of V	ween BEM and CFD numerical modelling VEC motion on a combined wind-wave energy platform	Vaibhav Raghavan WeonCheol Koo
		Baroja/		265	Fast time-domain model for an array of interactive point		Charitini Stavropoulou
		Wave hydrodynamic modelling	Devorah Greaves	547	Farm Layout Optimization of an innovative type of Hyl	orid Floating Breakwater	Sara Russo
				163	A CFD-FEM analysis for Anaconda WEC with mooring		Yang Huang
				153	CMIP6 wave climate simulation in the European North		Ponni Maya
				173 262	A method for the growth inhibition of biofouling in Silve Informing Early Design Decisions Through Functional	wa Tidal Power Plant Analysis of Maintenance Drivers: Applications in Marine	SeoYeong Lee Nathan Algarra
		Laboa/	Constraint Interior	259	Renewables Lubrication of offshore mechanical components: towa		Juan Guillermo Zapita Tar
		Operations, maintenance and decommissioning	Gregorio Iglesias	535	SEASNAKE: Impact - Marine operations modelling for new fully dynamic cable design for ocean energy devi	evidence-based results detailing the impact of using a ces.	Ben Kennedy
	Oral						
	entations			181	Structural testing and numerical modelling of a class of	ibre-reinforced composite demonstrator for turbine blades	Yadong Jiang
				469	Antifouling and anticorrosive prevention with ceramic		David Salvador Sanz San
		Arriaga/ Structural mechanics -	Claudio Lugni	389	Understanding the force motion trade off of rigid and	hinged floating platforms for marine renewables	Abel Arredondo-Galear
	materials, fatigue, loadings		Ciaddio Edgili	147	Reducing the uncertainty of ULS load estimates in o	ffshore structural design	Joao Cruz
				222	Critical Feature and Seawater Testing of Cross-Flow F	totor Components Fabricated with Additive Manufacturing	James McVey Rimmie Duraisamy
				267 174	Experimental validation of rollout-based model predict	ive control for wave energy converters on a two-body,	Zechuan Lin
				288	taut-moored point absorber prototype Control co-design and uncertainty analysis of the LUF	'A's PTO using WecOptTool	Carlos Michelen Strofe
		Oteiza/		396	Tidal barrage operation optimization using moment-ba	sed control	Agustina Skiarski
		Grid integration, power take-off and control	John Ringwood	434	Laboratory Tests Assessment of a Mechanical Senso	r-less MPPT Control Strategy for Tidal Turbines	Mohammad Rafiei
		Grid integration, power	John Ringwood	590	Laboratory Tests Assessment of a Mechanical Senso Design considerations for a hybrid wind-wave platform Wave Excitation Force Estimation for a Multi-DoF WEC	under energy-maximising control	Maria Luisa Celesti
6:00		Grid integration, power	Refreshments,	590 468 networking	Design considerations for a hybrid wind-wave platform Wave Excitation Force Estimation for a Muti-DoF WEO Results & posters exhibition (Terrace and C	under energy-maximising control C via a Cubature Kalman Filter: Improved Design and	Maria Luisa Celesti Jiamin Zhu
	e events	Grid integration, power take-off and control	Refreshments, "Supergen ORE Hub	590 468 networking	Design considerations for a hybrid wind-wave platform Wave Excitation Force Estimation for a Multi-DoF WEG g & posters exhibition (Terrace and C Tidal Energy research and opportunit	under energy-maximising control via a Cubature Kalman Filter. Improved Design and hillida room)	Maria Luisa Celesti Jiamin Zhu sity of Plymouth)
0-16:00 0-17:30 Side	e events	Grid integration, power take-off and control Mitxelena/Side event 1 Baroja/Side event 2 Arriaga/Side event 3	Refreshments, "Supergen ORE Hub "Distribut	590 468 networking Wave and ed Embedd	Design considerations for a hybrid wind-wave platform Wave Excitation Force Estimation for a Musi-DoF WEC Beauts g & posters exhibition (Terrace and C Tidal Energy research and opportunit ed Energy Conversion Technology (D Morphing Blades: New-Concept Tidal for Unsteady Load Mittigation" (by U	under energy-maximaing control wa a Cubature Kaiman Fiter Improved Design and hillida room) ies" (by SUPERGEN-ORE HUB - Univer EEC-Tec)" (by Wave Energy Scotland /	Maria Luisa Celesti Jiamin Zhu sity of Plymouth) NREL)
	e events	Grid integration, power take-off and control Mitxelena/Side event 1 Baroja/Side event 2	Refreshments, "Supergen ORE Hub	590 468 networking Wave and	Design considerations for a hybrid wind-wave platform Wave Excitation Force Estimation for a Multi-Dof WEG g & posters exhibition (Terrace and C Tidal Energy research and opportunit ed Energy Conversion Technology (D Morphing Blades: New-Concept Tidal for Unsteady Load Mitigation" (by U	under energy-maximaing control via a Cubature Kaiman Fitter Improved Design and hillida room) ies" (by SUPERGEN-ORE HUB - Univer	Maria Luisa Celesti Jiamin Zhu sity of Plymouth)
	e events	Grid Integration, power take-off and control Mitxelena/Side event 1 Baroja/Side event 2 Arriaga/Side event 3	Refreshments, "Supergen ORE Hub "Distribut	590 468 networking Wave and ed Embeddi	Design considerations for a hybrid wind-wave platform Wave Excitation Force Estimation for a Multi-Dof WEC Results g & posters exhibition (Terrace and C Tidal Energy research and opportunit ed Energy Conversion Technology (D Morphing Blades: New-Concept Tidal for Unsteady Load Mitigation" (by U An Experimental Study for Wave Energy Convertor of	under energy-maximaing control via a Cubature Kaiman Fitter Improved Design and hillida room) ies" (by SUPERGEN-ORE HUB - Univer EEC-Tec)" (by Wave Energy Scotland / and Wind Turbine Blades niversity of Edinburgh)	Maria Luisa Celesti Jiamin Zhu sity of Plymouth) NREL)
	e events	Grid Integration, power take-off and control Mitxelena/Side event 1 Baroja/Side event 2 Arriaga/Side event 3 Room /Track Baroja/ Wave hydrodynamic	Refreshments, "Supergen ORE Hub "Distribut	S90 468 networking Wave and Paper ID 152 643 534	Design considerations for a hybrid wind-wave platform Wave Excitation Force Estimation for a Multi-OF WEC Results g & posters exhibition (Terrace and C Tidal Energy research and opportunit ed Energy Conversion Technology (D Worphing Blades: New-Concept Tidal for Unsteady Load Mitigation" (by U An Esperimental Study for Wave Energy Converter of Exercise English and Exhibition (See Energy Converter of Exercise English Exhibition (See Energy Converter of Exercise Exhibition (See Energy Converter of Exercise English Exhibition (See Energy Converter of Exercise Exhibition (See Exhibition	under energy-maximaing control was a Cubature Kaiman Fitter Improved Design and hillida room) iles" (by SUPERGEN-ORE HUB - University EEC-Tec)" (by Wave Energy Scotland / and Wind Turbine Blades niversity of Edinburgh) Title Wavestar Type using Real-Time Hybrid Model Testing se in force control for regular waves in a robotized dry test se in force control for regular waves in a robotized dry test	Maria Luisa Celest Jiamin Zhu Sity of Plymouth) NREL) Presenter Yoon-Jin Ha Dana Salar Demian Garcia-Violini
	e events	Grid integration, power take-off and control Mitxelena/Side event 1 Baroja/Side event 2 Arriaga/Side event 3 Room/Track	Refreshments, "Supergen ORE Hub "Distribut	wave and Embedd Embedd Embedd Embedd Embedd 152 643 534 261	Design considerations for a hybrid wind-wave platform Wave Excitation Force Estimation for a Multi-DoF WEC Breauts g & posters exhibition (Terrace and C Tidal Energy research and opportunit ed Energy Conversion Technology (D Morphing Blades: New-Concept Tidal for Unsteady Load Mitigation" (by U An Experimental Study for Wave Energy Conventer of Technique Green and Prodognamic Coefficients Interpolator for Review of TEAMER Awards for WEC-Sim Support	under energy-maximaing control was a Cubature Kairran Fiter Improved Design and hillida room) ies" (by SUPERGEN-ORE HUB - Univer EECC-Tec)" (by Wave Energy Scotland / and Wind Turbine Blades niversity of Edinburgh) Title Wavestar Type using Real-Time Hybrid Model Testing se in force control for regular waves in a robotized dry test Control Co-Design of Wave Energy Converters	Maria Luisa Celesti Jiamin Zhu sity of Plymouth) NREL) Presenter Yoon-Jin Ha Dana Salar
	e events	Grid Integration, power take-off and control Mitxelena/Side event 1 Baroja/Side event 2 Arriaga/Side event 3 Room /Track Baroja/ Wave hydrodynamic	Refreshments, "Supergen ORE Hub "Distribut	S90 468 networking Wave and Paper ID 152 643 534	Design considerations for a hybrid wind-wave platform Wave Excitation Force Estimation for a Musi-OoF WEC Beauta 3 & posters exhibition (Terrace and C Tidal Energy research and opportunit ed Energy Conversion Technology (D Morphing Blades: New-Concept Tidal for Unsteady Load Mitigation" (by U An Experimental Study for Wave Energy Converter of Exercision Control of the Control of the Control of the Mitigation of the Mi	under energy-maximaing control was a Cubature Kairran Fiter Improved Design and hillida room) ies" (by SUPERGEN-ORE HUB - Univer EECC-Tec)" (by Wave Energy Scotland / and Wind Turbine Blades niversity of Edinburgh) Title Wavestar Type using Real-Time Hybrid Model Testing se in force control for regular waves in a robotized dry test Control Co-Design of Wave Energy Converters	Maria Luisa Celest Jiamin Zhu Sity of Plymouth) NREL) Presenter Yoon-Jin Ha Dana Salar Demian Garcia-Violini Beatrice Battisti
	e events	Grid Integration, power take-off and control Mitxelena/Side event 1 Baroja/Side event 2 Arriaga/Side event 3 Room /Track Baroja/ Wave hydrodynamic	Refreshments, "Supergen ORE Hub "Distribut	Paper ID 152 643 534 261 182	Design considerations for a hybrid wind-wave platform Wave Excitation Force Estimation for a Multi-Doff WEC Results g & posters exhibition (Terrace and C Tidal Energy research and opportunit ed Energy Conversion Technology (D Morphing Blades: New-Concept Tidal for Unsteady Load Mitigation" (by U An Experimental Study for Wave Energy Converter of Technique Demonstrating real-time hydrodynamic motion responsity with a point-stooler WEC Data-base Hydrodynamic Coefficients Interpolator for Review of TEAMER Awards for WEC-Sim Support Performance Enhancement of Public Dode for a Wave Perfo	under energy-maximaing control via a Cubature Kaiman Filter Improved Design and hillida room) ies" (by SUPERGEN-ORE HUB - Univer EEC-Tec)" (by Wave Energy Scotland / and Wind Turbine Blades niversity of Edinburgh) Title Wavestar Type using Real-Time Hybrid Model Testing are in force control for regular weves in a robotized dry test Control Co-Design of Wave Energy Converters e Energy System through Genetic Algorithm	Maria Luisa Celesti Jiamin Zhu Sity of Plymouth) NREL) Presenter Yoon-Jin Ha Dana Salar Demian Garcia-Violini Beatrice Battisti Emeel Kerikous
	e events	Grid Integration, power take-off and control Mitxelena/Side event 1 Baroja/Side event 2 Arriaga/Side event 3 Room /Track Baroja/ Wave hydrodynamic modelling	Refreshments, "Supergen ORE Hub "Distribut	### Paper ID Paper ID 152 643 534 261 182 272 344 582	Design considerations for a hybrid wind-wave platform Wave Excitation Force Estimation for a Multi-OF WEC Beauta 3 & posters exhibition (Terrace and C Tidal Energy research and opportunit ed Energy Conversion Technology (D Worphing Blades: New-Concept Tidal for Unsteady Load Mitigation" (by U An Experimental Study for Wave Energy Converter of Technique Demonstrating real-time hydrodynamic motion responsing with a point-steofer WEC Data-base Hydrodynamic Coefficients Interpolator for Review of TEAMER Awards for WEC-Sim Support Performance Enhancement of Fluidic Dode for a Wave Parametic resonance: a risk to be avoided or an operation synthesis via impedance-Matching in panchor systems Hydrodynamic Response of Mocean Wave Energy Co	under energy-maximaing control was a Cubature Kairran Fitter Improved Design and hillida room) iles" (by SUPERGEN-ORE HUB - University EEC-Tec)" (by Wave Energy Scotland / and Wind Turbine Blades niversity of Edinburgh) Title Wavestar Type using Real-time Hybrid Model Testing te in force control for regular waves in a robotized dry test Control Co-Design of Wave Energy Converters e Energy System through Genetic Algorithm ortunity to be explosted? A case for a 2-1 wave energy matic conditions, a generalised framework for mooned overfer in Extreme Waves	Maria Luisa Celesti Jiamin Zhu Sity of Plymouth) NREL) Presenter Yoon-Jin Ha Dana Salar Demian Garcia-Violini Beatrice Battisti Emeel Kerikous Giusepe Giorgi Bruno Paduano John Ashlin Samuel
		Grid Integration, power take-off and control Mitxelena/Side event 1 Baroja/Side event 2 Arriaga/Side event 3 Room /Track Baroja/ Wave hydrodynamic modelling Laboa/ Station-keeping, moorings	Refreshments, "Supergen ORE Hub "Distribut	## Paper ID 152 643 534 261 182 242 427	Design considerations for a hybrid wind-wave platform Wave Excitation Force Estimation for a Multi-OF WEC Beauts 3 & posters exhibition (Terrace and C Tidal Energy research and opportunit ed Energy Conversion Technology (D Worphing Blades: New-Concept Tidal for Unsteady Load Mitigation" (by U An Esperimental Study for Wave Energy Converter of Technique and with a post-base before WeC-Sim Support Performance Enhancement of Fluidic Dode for a Wave Parametric resonance: a risk to be avoided or an op- growsetter. Control synthesis via Impedance-Matching in panchor systems Performance Response of Mocean Wave Energy C The Dynamic response of floating offshore renewables	under energy-maximizing control via a Cubature Kairran Fiter Improved Design and fillida room) iles" (by SUPERGEN-ORE HUB - Univer EEC-Tec)" (by Wave Energy Scotland / and Wind Turbine Blades niversity of Edinburgh) Title Wavestar Type using Real-time Hybrid Model Testing te in force control for regular waves in a robotized day test Control Co-Design of Wave Energy Convertes e Energy System through Genetic Algorithm orbundy to be explosted? A case for a 2:1 wave energy matic conditions: a generalised framework for mooned reverter in Extreme Waves energy devices: Sensibility to mooring rope stiffness energy devices: Sensibility to mooring rope stiffness	Maria Luisa Celest Jiamin Zhu Sity of Plymouth) NREL) Presenter Yoon-Jin Ha Dana Salar Demian Garcia-Violini Beatrice Battist Emed Kerikous Gluseppe Giorgi Bruno Paduano John Ashlin Samuel Katle Smith
		Grid integration, power take-off and control Mitxelena/Side event 1 Baroja/Side event 2 Arriaga/Side event 3 Room/Track Baroja/ Wave hydrodynamic modelling	Refreshments, "Supergen ORE Hub "Distribut Chairman Siming Zheng	### Paper ID Paper ID 152 643 534 261 182 272 344 582	Design considerations for a hybrid wind-wave platform Wave Excitation Force Estimation for a Multi-OF WEC Beauta 3 & posters exhibition (Terrace and C Tidal Energy research and opportunit ed Energy Conversion Technology (D Worphing Blades: New-Concept Tidal for Unsteady Load Mitigation" (by U An Experimental Study for Wave Energy Converter of Technique Demonstrating real-time hydrodynamic motion responsing with a point-steofer WEC Data-base Hydrodynamic Coefficients Interpolator for Review of TEAMER Awards for WEC-Sim Support Performance Enhancement of Fluidic Dode for a Wave Parametic resonance: a risk to be avoided or an operation systems Hydrodynamic Response of Mocean Wave Energy Converter of Typical Systems of Mocean Wave Energy Co	under energy-maximizing control via a Cubature Kairran Fiter Improved Design and fillida room) iles" (by SUPERGEN-ORE HUB - Univer EEC-Tec)" (by Wave Energy Scotland / and Wind Turbine Blades niversity of Edinburgh) Title Wavestar Type using Real-time Hybrid Model Testing te in force control for regular waves in a robotized day test Control Co-Design of Wave Energy Convertes e Energy System through Genetic Algorithm orbundy to be explosted? A case for a 2:1 wave energy matic conditions: a generalised framework for mooned reverter in Extreme Waves energy devices: Sensibility to mooring rope stiffness energy devices: Sensibility to mooring rope stiffness	Maria Luisa Celesti Jiamin Zhu Sity of Plymouth) NREL) Presenter Yoon-Jin Ha Dana Salar Demian Garcia-Violini Beatrice Battisti Emeel Kerikous Giusepe Giorgi Bruno Paduano John Ashlin Samuel
10 Side	Oral	Grid Integration, power take-off and control Mitxelena/Side event 1 Baroja/Side event 2 Arriaga/Side event 3 Room /Track Baroja/ Wave hydrodynamic modelling Laboa/ Station-keeping, moorings	Refreshments, "Supergen ORE Hub "Distribut Chairman Siming Zheng	## Paper ID 152 643 534 261 182 242 427	Design considerations for a hybrid wind-wave platform Wave Excitation Force Estimation for a Multi-OF WEC Beauts 3 & posters exhibition (Terrace and C Tidal Energy research and opportunit ed Energy Conversion Technology (D Worphing Blades: New-Concept Tidal for Unsteady Load Mitigation" (by U An Esperimental Study for Wave Energy Converter of Technique and with a post-base before WeC-Sim Support Performance Enhancement of Fluidic Dode for a Wave Parametric resonance: a risk to be avoided or an op- growsetter. Control synthesis via Impedance-Matching in panchor systems Performance Response of Mocean Wave Energy C The Dynamic response of floating offshore renewables	under energy-maximizing control via a Cubature Kairran Fiter Improved Design and fillida room) iles" (by SUPERGEN-ORE HUB - Univer EEC-Tec)" (by Wave Energy Scotland / and Wind Turbine Blades niversity of Edinburgh) Title Wavestar Type using Real-time Hybrid Model Testing te in force control for regular waves in a robotized day test Control Co-Design of Wave Energy Convertes e Energy System through Genetic Algorithm orbundy to be explosted? A case for a 2:1 wave energy matic conditions: a generalised framework for mooned reverter in Extreme Waves energy devices: Sensibility to mooring rope stiffness energy devices: Sensibility to mooring rope stiffness	Maria Luisa Celesti Jiamin Zhu Sity of Plymouth) NREL) Presenter Yoon-Jin Ha Dana Salar Demian Garcia-Violin Beatrice Battist Emeel Kerikous Gluseppe Giorgi Bruno Paduano John Ashlin Samuel Katle Smith
10 Side		Grid Integration, power take-off and control Mitxelena/Side event 1 Baroja/Side event 2 Arriaga/Side event 3 Room /Track Baroja/ Wave hydrodynamic modelling Laboa/ Station-keeping, moorings	Refreshments, "Supergen ORE Hub "Distribut Chairman Siming Zheng	Paper ID 152 643 534 261 182 272 344 582 427 485	Design considerations for a hybrid wind-wave platform Wave Excitation Force Estimation for a Multi-OF WEC Results 3 & posters exhibition (Terrace and C Tidal Energy research and opportunit ed Energy Conversion Technology (D Worphing Blades: New-Concept Tidal for Unsteady Load Mitigation" (by U An Experimental Study for Wave Energy Converter of An Experimental Study for Wave Energy Converter of Commission with a profit and an experimental Study for Wave Energy Converter of Review of TEAMER Awards for WEC-Sim Support Performance Enhancement of Fluidic Dode for a Wave Parametric resonance: a risk to be avoided or an op- converter. Parametric resonance: a risk to be avoided or an op- grant of the Commission of the Commis	under energy-maximizing control ive a Cubature Kairran Fitter Improved Design and fillida room) iles" (by SUPERGEN-ORE HUB - Univer iles" (by SUPERGEN-ORE HUB - Univer iles" (by SUPERGEN-ORE HUB - Univer iles" (by Wave Energy Scotland / and Wind Turbine Blades niversity of Edinburgh) Title Wavestar Type using Real-time Hybrid Model Testing ile in force control for regular waves in a robotized dry test Control Co-Design of Wave Energy Converters e Energy System through Genetic Algorithm orbunity to be exploited? A case for a 2:1 wave energy matic conditions a generalised framework for moved movefor in Externe Waves energy devices Sensibility to moving rope stiffness mooring configurations for the mutil-float MM WEC	Maria Luisa Celesti Jiamin Zhu Sity of Plymouth) NREL) Presenter Yoon-Jin Ha Dana Salar Demian Garcia-Violini Beatrice Battisti Emeel Kerikous Giuseppe Giorgi Bruno Paduano John Ashlin Samuel Katie Smith Samuel Draycott
30 Side	Oral	Grid integration, power take-off and control Mitxelena/Side event 1 Baroja/Side event 2 Arriaga/Side event 3 Room /Track Baroja/ Wave hydrodynamic modelling Station-keeping, moorings and foundations	Refreshments, "Supergen ORE Hub "Distribut Chairman Siming Zheng	Paper ID 152 643 534 261 182 272 344 582 427 485 410 419	Design considerations for a hybrid wind-wave platform Wave Excitation Force Estimation for a MuB-OF WEC Beauts 3 & posters exhibition (Terrace and C Tidal Energy research and opportunit ed Energy Conversion Technology (D Worphing Blades: New-Concept Tidal for Unsteady Load Mitigation" (by U An Experimental Study for Wave Energy Converter of recentings Demonstrating real-time hydrodynamic motion respons region with a post-leashorter WEC Data-base Hydrodynamic Coefficients Interpolator for Review of TEAMER Awards for WEC-Sim Support Performance Enhancement of Fluidic Dode for a Wave Parametic resonance: a risk to be avoided or an open Control synthesis via Impedance-Matching in pancher systems Hydrodynamic Response of Mocean Wave Energy Co The Dynamic Co The Dynamic Response of Mocean Wave Energy Co The Dynamic Co The Dynamic Co The Dynamic Co The Dy	inder energy-maximing control Two a Cubature Kairran Fiter Improved Design and Intilida room) Ites" (by SUPERGEN-ORE HUB - University IEEC-Tec)" (by Wave Energy Scotland / and Wind Turbine Blades inversity of Edinburgh) Title Wavestar Type using Real-time Hybrid Model Testing tee in force control for regular waves in a robotized dry test Control Co-Design of Wave Energy Converters to Energy System through Genetic Algorithm ordurity to be exploited? A case for a 2:1 wave energy matic conditions, a generalised framework for moored overder in Externe Waves energy devices: Sensibility to mooring rope stiffness mooring configurations for the multi-float MM WEC ble for a foating testing platform — a numerical approach Licad Case Generator A Web-based Tool to Eupport Licad Case Generator A Web-based Tool to Eupport Licad Case Generator A Web-based Tool to Eupport	Maria Luisa Celesti Jiamin Zhu Sity of Plymouth) NREL) Presenter Yoon-Jin Ha Dana Salar Demian Garcia-Violini Beatrice Battist Emel Kerikous Gluseppe Giorgi Bruno Paduano John Ashlin Samuel Kate Smith Samuel Draycott
330 Side	Oral	Grid Integration, power take-off and control Mitxelena/Side event 1 Baroja/Side event 2 Arriaga/Side event 3 Room /Track Baroja/ Wave hydrodynamic modelling Station-keeping, moorings and foundations Arriaga/ Structural mechanics - materials, statigue,	Refreshments, "Supergen ORE Hub "Distribut Chairman Siming Zheng	## Paper ID Paper ID 152 643 534 261 182 272 485 410 419 490	Design considerations for a hybrid wind-wave platform Wave Excitation Force Estimation for a Multi-OPF WEC Results 3 & posters exhibition (Terrace and C Tidal Energy research and opportunit ed Energy Conversion Technology (D Morphing Blades: New-Concept Tidal for Unsteady Load Mitigation" (by U An Experimental Study for Wave Energy Converter of Technique and the post posterior of the Concept Tidal for Unsteady Load Mitigation" (by U An Experimental Study for Wave Energy Converter of Technique and with a post post-based or WeC-Sim Support Performance Enhancement of Fluids Dode for a Wave Parametric resonance: a risk to be avoided or an op- promyeter. Control synthesis via Impedance-Matching in panchro systems Hydrodynamic Response of Mocean Wave Energy Con- The Dynamic response of floating offshore renewable Experimental measurements of two elastic taut-slack or Estaywayon Testing and Demonstration of the Design Estaywayon Testing and Design Load Concerning the Design Load Concerning the Design Load Concerning the Design Load Concerning the Design Load C	under energy-maximizing control Two a Cubature Kairran Fiter Improved Design and hillida room) ILLES" (by SUPERGEN-ORE HUB - University (by SUPERGEN-ORE HUB - University (by SUPERGEN-ORE HUB - University (by Wave Energy Scotland / and Wind Turbine Blades niversity of Edinburgh) Title Wevestar Type using Real-time Hybrid Model Testing se in force control for regular waves in a robotized dry test Control Co-Design of View Energy Converters e Energy System through Genetic Algorithm outunity to be explosed? A case for a 2:1 wave energy matic conditions: a generalised framework for moored reverter in Extreme Waves energy devices: Sensibility to mooring rope stiffness mooring configurations for the multi-float M4 WEC tible for a floating testing platform — a numerical approach Local Case Generator A Web-based Tool to Support Mooring Lines under Realistic Wave Curales	Maria Luisa Celesti Jiamin Zhu Sity of Plymouth) NREL) Presenter Yoon-Jin Ha Dana Salar Demian Garcia-Violini Beatrice Battiss Emeel Kerikous Giuseppe Giorgi Bruno Paduano John Ashiin Samuel Katle Smith Samuel Draycott Daniela Benites-Muno Vincent Neary Eguzkiñe Martinez
:30 Side	Oral	Grid integration, power take-off and control Mitxelena/Side event 1 Baroja/Side event 2 Arriaga/Side event 3 Room/Track Baroja/ Wave hydrodynamic modelling Station-keeping, moorings and foundations Arriaga/ Structural mechanics -	Refreshments, "Supergen ORE Hub "Distribut Chairman Siming Zheng	Paper ID 152 643 534 261 182 272 344 582 427 485 410 419	Design considerations for a hybrid wind-wave platform Wave Excitation Force Estimation for a MuB-OF WEC Beauts 3 & posters exhibition (Terrace and C Tidal Energy research and opportunit ed Energy Conversion Technology (D Worphing Blades: New-Concept Tidal for Unsteady Load Mitigation" (by U An Experimental Study for Wave Energy Converter of recentings Demonstrating real-time hydrodynamic motion respons region with a post-leashorter WEC Data-base Hydrodynamic Coefficients Interpolator for Review of TEAMER Awards for WEC-Sim Support Performance Enhancement of Fluidic Dode for a Wave Parametic resonance: a risk to be avoided or an open Control synthesis via Impedance-Matching in pancher systems Hydrodynamic Response of Mocean Wave Energy Co The Dynamic Co The Dynamic Response of Mocean Wave Energy Co The Dynamic Co The Dynamic Co The Dynamic Co The Dy	under energy-maximizing control Two a Cubature Kairran Fiter Improved Design and hillida room) ILLES" (by SUPERGEN-ORE HUB - University (by SUPERGEN-ORE HUB - University (by SUPERGEN-ORE HUB - University (by Wave Energy Scotland / and Wind Turbine Blades niversity of Edinburgh) Title Wevestar Type using Real-time Hybrid Model Testing se in force control for regular waves in a robotized dry test Control Co-Design of View Energy Converters e Energy System through Genetic Algorithm outunity to be explosed? A case for a 2:1 wave energy matic conditions: a generalised framework for moored reverter in Extreme Waves energy devices: Sensibility to mooring rope stiffness mooring configurations for the multi-float M4 WEC tible for a floating testing platform — a numerical approach Local Case Generator A Web-based Tool to Support Mooring Lines under Realistic Wave Curales	Maria Luisa Celesti Jiamin Zhu Sity of Plymouth) NREL) Presenter Yoon-Jin Ha Dana Salar Demian Garcia-Violin Beatrice Battist Emeel Kerikous Gluseppe Giorgi Bruno Paduano John Ashlin Samuel Katie Smith Samuel Draycott
7:30 Side	Oral	Grid Integration, power take-off and control Mitxelena/Side event 1 Baroja/Side event 2 Arriaga/Side event 3 Room /Track Baroja/ Wave hydrodynamic modelling Station-keeping, moorings and foundations Arriaga/ Structural mechanics - materials, statigue,	Refreshments, "Supergen ORE Hub "Distribut Chairman Siming Zheng	## Paper ID Paper ID 152 643 534 261 182 272 485 410 419 490	Design considerations for a hybrid wind-wave platform Wave Excitation Force Estimation for a Multi-OPF WEC Results 3 & posters exhibition (Terrace and C Tidal Energy research and opportunit ed Energy Conversion Technology (D Morphing Blades: New-Concept Tidal for Unsteady Load Mitigation" (by U An Experimental Study for Wave Energy Converter of Technique and the post posterior of the Concept Tidal for Unsteady Load Mitigation" (by U An Experimental Study for Wave Energy Converter of Technique and with a post post-based or WeC-Sim Support Performance Enhancement of Fluids Dode for a Wave Parametric resonance: a risk to be avoided or an op- promyeter. Control synthesis via Impedance-Matching in panchro systems Hydrodynamic Response of Mocean Wave Energy Con- The Dynamic response of floating offshore renewable Experimental measurements of two elastic taut-slack or Estaywayon Testing and Demonstration of the Design Estaywayon Testing and Design Load Concerning the Design Load Concerning the Design Load Concerning the Design Load Concerning the Design Load C	under energy-maximizing control Two a Cubature Kairran Fiter Improved Design and hillida room) ILLES" (by SUPERGEN-ORE HUB - University (by SUPERGEN-ORE HUB - University (by SUPERGEN-ORE HUB - University (by Wave Energy Scotland / and Wind Turbine Blades niversity of Edinburgh) Title Wevestar Type using Real-time Hybrid Model Testing se in force control for regular waves in a robotized dry test Control Co-Design of View Energy Converters e Energy System through Genetic Algorithm outunity to be explosed? A case for a 2:1 wave energy matic conditions: a generalised framework for moored reverter in Extreme Waves energy devices: Sensibility to mooring rope stiffness mooring configurations for the multi-float M4 WEC tible for a floating testing platform — a numerical approach Local Case Generator A Web-based Tool to Support Mooring Lines under Realistic Wave Curales	Maria Luisa Celesti Jiamin Zhu sity of Plymouth) NREL) Presenter Yoon-Jin Ha Dana Salar Demian Garcia-Violin Beatrice Battist Emeel Kerkous Giusepre Giorgi Bruno Paduano John Ashiin Samuel Katle Smith Samuel Draycott Danieta Benites-Muno Vincent Neary Eguzkiñe Martinez
7:30 Side	Oral	Grid Integration, power take-off and control Mitxelena/Side event 1 Baroja/Side event 2 Arriaga/Side event 3 Room /Track Baroja/ Wave hydrodynamic modelling Station-keeping, moorings and foundations Arriaga/ Structural mechanics - materials, statigue,	Refreshments, "Supergen ORE Hub "Distribut Chairman Siming Zheng	## Paper ID Paper ID 152 643 534 261 182 272 485 410 419 490	Design considerations for a hybrid wind-wave platform Wave Excitation Force Estimation for a Multi-OPF WEC Results 3 & posters exhibition (Terrace and C Tidal Energy research and opportunit ed Energy Conversion Technology (D Morphing Blades: New-Concept Tidal for Unsteady Load Mitigation" (by U An Experimental Study for Wave Energy Converter of Technique and the post posterior of the Concept Tidal for Unsteady Load Mitigation" (by U An Experimental Study for Wave Energy Converter of Technique and with a post post-based or WeC-Sim Support Performance Enhancement of Fluids Dode for a Wave Parametric resonance: a risk to be avoided or an op- promyeter. Control synthesis via Impedance-Matching in panchro systems Hydrodynamic Response of Mocean Wave Energy Con- The Dynamic response of floating offshore renewable Experimental measurements of two elastic taut-slack or Estaywayon Testing and Demonstration of the Design Estaywayon Testing and Design Load Concerning the Design Load Concerning the Design Load Concerning the Design Load Concerning the Design Load C	under energy-maximaing control We a Cubature Kairnan Fitter Improved Design and hillida room) ites" (by SUPERGEN-ORE HUB - University (by Supergenerative Hubert Supergenerative Huber	Maria Luisa Celesti Jiamin Zhu Sity of Plymouth) NREL) Presenter Yoon-Jin Ha Dana Salar Demian Garcia-Violin Beatrice Battisti Emeel Kerikous Giuseppe Giorgi Bruno Paduano John Ashlin Samuel Katle Smith Samuel Draycott Daniela Benites-Muno Vincent Neary Eguzkine Martinez Timo Bennecke
7:30 Side	Oral	Grid integration, power take-off and control Mitxelena/Side event 1 Baroja/Side event 2 Arriaga/Side event 3 Room /Track Baroja/ Wave hydrodynamic modelling Station-keeping, moorings and foundations Arriaga/ Structural mechanics materials, fatigue, loadings	Refreshments, "Supergen ORE Hub "Distribut Chairman Siming Zheng	Paper ID 152 643 534 261 182 272 344 582 427 485 410 419 490 501	Design considerations for a hybrid wind-wave platform Wave Excitation Force Estimation for a Mul-DoF WEC Beauts 3 & posters exhibition (Terrace and C Tidal Energy research and opportunit ed Energy Conversion Technology (D Worphing Blades: New-Concept Tidal for Unsteady Load Mitigation" (by U An Experimental Study for Wave Energy Converter of An Experimental Study for Wave Energy Converter of Concept Study (C) Demonstrating reastions hydrodynamic motion respons go with a porticaborber WEC Data-base Hydrodynamic Coefficients Interpolator for Review of TEAMER Awards for WEC-Sim Support Performance Enhancement of Fluidic Dode for a Wave Parametric resonance: a risk to be avoided or an ope convestir and the study of the Coefficients in the polator of Performance Enhancement of Fluidic Dode for a Wave Parametric resonance: a risk to be avoided or an ope convestir and the study of the Coefficients in the Coefficients Performance Enhancement of Fluidic Dode for a Wave Parametric resonance of Mocean Wave Energy Converted The Dynamic Response of Wave Energy Converted The Dynamic Response of Mocean Wave Energy Converted The Dynamic Response of Mocean Wave Energy Converted The Dynamic Response of Mocean Wave Energy Converted The Company Converted of the Coefficients of the Dynamic Response of Mocean Wave Energy Converted The Company Converted of the Coefficients of	under energy-maximaing control Two a Cubature Kairran Fitter Improved Design and Intilida room) Ites" (by SUPERGEN-ORE HUB - University (by SUPERGEN-ORE HUB - University (by SUPERGEN-ORE HUB - University (by Wave Energy Scotland / and Wind Turbine Blades intersity of Edinburgh) Title Wavestar Type using Real-time Hybrid Model Testing tee in force control for regular waves in a robotized day test Control Co-Design of Wave Energy Converters e Energy System through Genetic Algorithm outunity to be exploited? A case for a 2:1 wave energy matic conditions a generalised framework for moved inverter in Externe Waves energy devices Sensibility to moving rope stiffness moving configurations for the muti-float MM WEC the for a foating testing platform – a numerical approach to access deve total turbine furne model consolvos total turbine furne model	Maria Luisa Celesti Jiamin Zhu Sity of Plymouth) NREL) Presenter Yoon-Jin Ha Dana Salar Demian Garcia-Violin Beatrice Battist Emeel Kerikous Gluseppe Giorgi Bruno Paduano John Ashlin Samuel Katle Smith Samuel Draycott Daniela Benites-Muno Vincent Neary Eguzkine Martinez Timo Bennecke Christoffer Fjellstedt Md Imran Ullah
7:30 Side	Oral	Grid integration, power take-off and control Mitxelena/Side event 1 Baroja/Side event 2 Arriaga/Side event 3 Room /Track Baroja/ Wave hydrodynamic modelling Station-keeping, moorings and foundations Arriaga/ Structural mechanics - materials, fatigue, loadings Otelza/ Grid integration, power	Refreshments, "Supergen ORE Hub "Distribut Chairman Siming Zheng	## Paper ID Paper ID 152 643 534 261 182 277 485 410 419 490 501 207 315 552	Design considerations for a hybrid wind-wave platform Wave Excitation Force Estimation for a Multi-Opi VEC Results 3 & posters exhibition (Terrace and C Tidal Energy research and opportunit ed Energy Conversion Technology (D Morphing Blades: New-Concept Tidal for Unsteady Load Mitigation" (by U An Experimental Study for Wave Energy Conventer of Technique Demoistration real-time hydrodynamic motion respon- dy with a point-ebsocher WEC Data-base Hydrodynamic Coefficients Interpolator for Review of TEAMER Awards for WEC-Sim Support Performance Enhancement of Fluids Diode for a Wav Parametric resonnece: a fisik to be avoided or an opp- conventer. Control synthesis via impedance-Matching in pandicul systems Hydrodynamic Response of Mocean Wave Energy Conventer Experimental measurements of two elastic tauf-slack of Experimental measurements of two elastic tauf-slack of Bets version Testing and Demonstration of the Design 15.0 SEGOO 2 disended Design Load Case Analyses. Fatigue LEK existent for Vave Energy Conventer A methodology to capture the eningle blade loads on a A comparison of AC and DC collection grids for matrin Power quality assessment for Vave Energy Conventer Dimensioning and optimization of multi-source offshor	under energy-maximaing control it is a Cubature Kairran Filter Improved Design and hillidal room) ies" (by SUPERGEN-ORE HUB - University (by SUPERGEN-ORE HUB - University (by SUPERGEN-ORE HUB - University (by Wave Energy Scotland / Improved Hubbard Filter) and Wind Turbine Blades inversity of Edinburgh (by Supersity of Edinburgh) Title Wavestar Type using Real-Time Hybrid Model Testing see in force control for regular waves in a rebotized dry test Control Co-Design of Wave Energy Converters e Energy System through Genetic Algorithm control for the explosed? A case for a 2.1 wave energy matic conditions a generalised framework for moored avester in Extreme Waves energy devices. Sensitivity to mooring rope stiffness mooring configurations for the multi-float Mi WEC ble for a floating testing platform – a numerical approach Load Case Generator. Web-based Tool to Support According Lines under Realistic Wave Climates I cross-flow total turbine flume model or current energy using energy storage or newable energy parks.	Maria Luisa Celesti Jiamin Zhu sity of Plymouth) NREL) Presenter Yoon-Jin Ha Dana Salar Demian Garcia-Violin Beatrice Battisti Emeel Kerikous Giusepe Giorgi Bruno Paduano John Ashiin Samuel Katie Smith Samuel Draycott Danieta Benites-Muno Vincent Neary Eguzkiñe Martinez Timo Bennecke Christoffer Fjellstedt Md Imran Ullah Anton Schaap
7:30 Side	Oral	Grid integration, power take-off and control Mitxelena/Side event 1 Baroja/Side event 2 Arriaga/Side event 3 Room/Track Baroja/ Wave hydrodynamic modelling Station-keeping, moorings and foundations Arriaga/ Structural mechanics - materials, fattigue, loadings	Refreshments, "Supergen ORE Hub "Distribut Chairman Siming Zheng Maki Zabala	Paper ID 152 643 534 261 182 272 344 582 427 485 410 419 490 501	Design considerations for a hybrid wind-wave platform Wave Excitation Force Estimation for a Mul-DoF WEC Beauts 3 & posters exhibition (Terrace and C Tidal Energy research and opportunit ed Energy Conversion Technology (D Worphing Blades: New-Concept Tidal for Unsteady Load Mitigation" (by U An Experimental Study for Wave Energy Converter of An Experimental Study for Wave Energy Converter of Concept Study (C) Demonstrating reastions hydrodynamic motion respons go with a porticaborber WEC Data-base Hydrodynamic Coefficients Interpolator for Review of TEAMER Awards for WEC-Sim Support Performance Enhancement of Fluidic Dode for a Wave Parametric resonance: a risk to be avoided or an ope convestir and the study of the Coefficients in the polator of Performance Enhancement of Fluidic Dode for a Wave Parametric resonance: a risk to be avoided or an ope convestir and the study of the Coefficients in the Coefficients Performance Enhancement of Fluidic Dode for a Wave Parametric resonance of Mocean Wave Energy Converted The Dynamic Response of Wave Energy Converted The Dynamic Response of Mocean Wave Energy Converted The Dynamic Response of Mocean Wave Energy Converted The Dynamic Response of Mocean Wave Energy Converted The Company Converted of the Coefficients of the Dynamic Response of Mocean Wave Energy Converted The Company Converted of the Coefficients of	under energy-maximaing control it is a Cubature Kairran Fiter Improved Design and hillida room) ites" (by SUPERGEN-ORE HUB - University (by SUPERGEN-ORE HUB - University (by SUPERGEN-ORE HUB - University (by Supersity (by Su	Maria Luisa Celest Jiamin Zhu Sity of Plymouth) NREL) Presenter Yoon-Jin Ha Dana Salar Demian Garcia-Violini Beatrice Battist Emed Kerikous Gluseppe Giorgi Bruno Paduano John Ashlin Samuel Katle Smith Samuel Draycott Daniela Benites-Muno Vincent Neary Eguzkine Martinez Timo Bennecke Christoffer Fjellstedt Md Imran Ullah



Page				Tuesday September 5 Registration (Main Hall)	
Page	Room /Track	Chairman		Title	
## 18				Analysis of Mutriku's OWC performance Successful innovation strategies to overcome the technical challenges in the development of wave energy technologies	Isabel Casas Pablo Ruiz-Minguela
Page	Wave device development	Claes Eskilsson		Spatial focussing of wave energy for improved power capture by an oscillating water column	
# May 1	and testing				Filippo Giorcelli Wilson Guachamin-Ace
Part				Enabling the Ocean Internet of Things with Renewable Marine Energy	
Part					
Part		Stanhania Ordoñaz-Sanchaz			Katherine Van Ness
지수 10 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	and testing	Siephanie Ordonez-Sanciez		1 1 1	
Part					Marinos Manolesos Muslim Jameel Syed
Part	Arriaga/				Claes Eskilsson
Part	Wave hydrodynamic	Gareth Tomas	497		Yu Gao
Part				On the state-of-the-art of CFD simulations for wave energy converters within the open-source numerical framework of Dua/SPHysics	Alejandro Crespo
Part			150	A Study on Wave Energy Conversion Problem of Turbine-Integrated OWC Chamber	22211, 22211111111
Part					
	Oteiza/THM	Tim O'Doherty	-		Mikaël Grondeau
The control of the co					
Page 12 Page			_		
Part					
Page	Room /Track	Chairman		Title	
Page March Page March Page March Page March Page March Page March Page P				Wave Energy Power Take-off Validation with a Hydraulidy Actuated Rotary Dynamometer and a Bi-directional High-power DC Europhy Methods for validation was enemy representation and electrical and electrical states.	
Part	Baroja/ Waye device development	Diggo Vicingo ye	212		Pedro Lomonaco
1906 1900		go vanaliza			
March Final Property Prop			448	•	
March Calcade Calcad				A methodology for developing a prediction model for the remaining fatigue life and residual strength of tidal turbine blades	Tenis Thanthirige
The first of every development of the property	Laboa/			-	Sergio Lopez Dubon
Part	Tidal device development	Alberto Peña			Adrian Hunt William Finnegan
Part			322	Experimental flow conditions effects on a bottom-mounted ducted twin vertical axis tidal turbine compared to real sea conditions	Martin Moreau
Part				Experimental comparison of the flow-induced loading between a ducted bottom-mounted twin vertical axis tital furbine at still and an unducted prototype	
Part				nymens emulation of Warre Point Absorbers utilined by the Condition of Existing Publishm. Hydrodynamic and Statis (Stability Analysis of a Hybrid Offshore Wind-Wave Energy Generation: An Expansion of Semisubmension Floresters Wind Transact Concess.	Thiago Saksanian Halla Payam Aboutalebi
Part Column Col	Arriaga/	Market Periods	626	Study with Large Eddy Simulations of energy desipation due to backwarth flows in wave overtopping	Claudio Sandoval
Color First Constraint Const	modelling			Nonlinear WEC modeling using Sparse Identification of Nonlinear Dynamics (SINDy)	
Column Testion Colu			392 460	A development and validation of the in-house hydrodynamics code and the DNV software for TALOS wave enough conventor.	
Count Title Count			416	A turbines-module adapted to the marine site for tidal farms layout optimization	Mikol Pucci
Column Treat Community Column					
Color Part	Oteiza/THM	Gustavo Esteban			
Rough Floats Pages Pages					
Page of Table Page of Tabl					
Rompificate Part of the Color				Lunch & posters exhibition	
Bangain Nova direct development Propriet Table Ection Table Propriet Table Ection Table Annual Propriet Table Annual Pro					
Begin Was device development and the second of the second	Room /Track	Chairman	Paper ID	Title	
Biogla Water designated by Tags Time Ecology 20 20 and several and a law was every everal species of the control of the contro			185	Enhancing the efficiency of an axial impulse turbine with a diffuser	
Technology Performance Level Assessment (TPL) (by SANDIA LABTPL TEMP) Refreshments, networking & poster an international property (by SANDIA LABTPL TEMP) Refreshments, networking & poster an inhality (by SANDIA LABTPL TEMP) Refreshments, networking & poster an inhality (by SANDIA LABTPL TEMP) Refreshments, networking & poster an inhality (by SANDIA LABTPL TEMP) Refreshments, networking & poster an inhality (by SANDIA LABTPL TEMP) Refreshments, networking & poster an inhality (by SANDIA LABTPL TEMP) Refreshments, networking & poster an inhality (by SANDIA LABTPL TEMP) Refreshments, networking & poster an inhality (by SANDIA LABTPL TEMP) Refreshments (by Sandia Refreshment) Refresh		Vans Town 5	280		
Technical Part	Wave device development and testing	Yago Torre-Enciso		Basin testing of the 1-2-1 M4 WEC	
Library Tail ducks development Desire Colors Total ducks development Desire Colors					
That device development and presentations Oral presentations From Part of the Color Section					Marinos Manolesos
Total device development and betrig and betr					Daniel Dehtyriov
Cotal presentation Oral presentation Figure 10 August Public State Sta	Tidal device development	Daniel Coles			
Sold South Price Control of a Fundament of Legislate Field Soldier South Price Control of Soldier	and testing				Miguel Gonzalez-Monti
Wave by body stands where the Part of the			504	Design and Demonstration of a Passive Pitch System for Tidal Turbines	Stefano Gambuzza
Wave by body stands where the Part of the			184	Wave Amplification inside an Open Circular Calason for Wave Energy Conversion in Waters with Medium Energy Density System Medification for Modellins M4 Wave Energy Conventor	Jiahn-Horng Chen Xuefei Wang
All Services Control States and	Arriaga/		198	Semi-analytical and CFD formulations of a spherical floater	Spyridon Mavrakos
Solid Primary Content Property Content	Wave hydrodynamic	Sara Russo	278	Spectral-Domain Modeling of Wave Energy Converters as an Efficient Tool for Adjustment of PTO Model Parameters	Adam Keester
ObstacTHM Apudiant Date) Presented Apudiant Date) Apudiant Date) Apudiant Date) Apudiant Date) Presented Apudiant Date) Apudiant Date) Technology Performance Level Assessment (TPL) (by SANDIA LAB, -TPL TEAM-) Technology Performance Level Assessment (TPL) (by SANDIA LAB, -TPL TEAM-) Technology Performance Level Assessment (TPL) (by SANDIA LAB, -TPL TEAM-) Technology Performance Level Assessment (TPL) (by SANDIA LAB, -TPL TEAM-) Technology Performance Level Assessment (TPL) (by SANDIA LAB, -TPL TEAM-) Technology Performance Level Assessment (TPL) (by SANDIA LAB, -TPL TEAM-) Technology Performance Level Assessment (TPL) (by SANDIA LAB, -TPL TEAM-) Technology Performance Level Assessment (TPL) (by SANDIA LAB, -TPL TEAM-) Technology Performance Level Assessment (TPL) (by SANDIA LAB, -TPL TEAM-) Technology Performance Level Assessment (TPL) (by SANDIA LAB, -TPL TEAM-) Technology Performance Level Assessment (TPL) (by SANDIA LAB, -TPL TEAM-) Technology Performance Level Assessment (TPL) (by SANDIA LAB, -TPL TEAM-) Technology Performance Level Assessment (TPL) (by SANDIA LAB, -TPL TEAM-) Technology Performance Level Assessment (TPL) (by SANDIA LAB, -TPL TEAM-) Technology Performance Level Assessment (TPL) (by SANDIA LAB, -TPL TEAM-) Technology Performance Level Assessment (TPL) (by SANDIA LAB, -TPL TEAM-) Technology Performance Level Assessment (TPL) (by SANDIA LAB, -TPL TEAM-) Technology Performance Level Assessment (TPL) (by SANDIA LAB, -TPL TEAM-) Technology Performance Level Assessment (TPL) (by SANDIA LAB, -TPL TEAM-) Technology Performance Level Assessment (TPL) (by SANDIA LAB, -TPL TEAM-) Technology Performance Level Assessment (TPL) (by SANDIA LAB, -TPL TEAM-) Technology Performance Level Assessment (TPL) (by SANDIA LAB, -TPL TEAM-) Technology Performance Level Assessment (TPL) (by SANDIA LAB, -TPL TEAM-) Technology Performance Level Assessment (TPL) (by SANDIA LAB, -TPL TEAM-) Technology Performance Level Assessment (TPL) (by SANDIA LAB, -TPL TEAM-) Technology Performance Lev			333	A multipuery analysis of a PeWEC farm	Jian Tan
Obeita/TIM Another Bahaj (F) Development of a months EMT mode for the unique of related based where a was been based under a bit for the control of the co			555	Experimental characterisation of the wake of a bottom-mounted two tandem of cylinders placed in a high velocity area	Alina Santa Cruz
Chairman			676	Development of a modified BEMT model for the analysis of helical bladed vertical axis tidal turbines	Mohammad Fereidoonnes
### Presenter Page Presenter Presen	Oteiza/THM	AbuBakr Bahaj			Kabir Bashir Shariff
Refreshments, networking & posters exhibition (Terrace and Chillida room) Mixelona/Side event 4 SafeWAVE project (by AZTI / WavEC) SafeWAVE project (by AZTI / WavEC) Arrisga/Side event 5 Technology Performance Level Assessment (TPL) (by SANDIA LABTPL TEAM-) Arrisga/Side event 6 NEMMO Project, On the Cutting Edge of Tidal Blade Design and Materials (by Ocean Energy Europe) Room // Track Room // Track Chairman Paper 0 318 A Novel Hybrid Passing Sealesses (TPL) (by SANDIA LABTPL TEAM-) Title Presenter 329 339 339 340-assessment (and sealesses (TPL) (by SANDIA LABTPL TEAM-) Title Presenter 338 A Novel Hybrid Passing Sealesses (Track) 339 340-assessment (and sealesses (Track)				· · · · · · · · · · · · · · · · · · ·	Karla Ruiz-Hussmann
Mitzelena/Side event 4 Barojal Side event 5 Technology Performance Level Assessment (TPL) (by SANDIA LABTPL TEAM-) NEMMO Project, On the Cutting Edge of Tidal Blade Design and Materials (by Ocean Energy Europe) Presentary Rosen /Track Chairman Paper D 313 Anne Hyriof Pauling Sealesses Prese Energy Convention Design Paulinely Expendential Investigations San Richts 329 Open-adaptic dam design for severe every convention and testing Barojal Wave device device devicepment and testing Luis Gato Luis Gato Luis Gato 516 Readings and Could Assessment of Critical Components Executed Institute Official Annual Institute Annual Testing Annual Testing Wave Physiologyanics Annual Testing Annual Testing Annual Testing Annual Testing Annual Testing					Bryn Townley
Arriaga/Side event 5 Room f/rack Chairman Paper ID Arriaga/Side event 5 Sara Places Sara Place		Refresh	nments, ne	tworking & posters exhibition (Terrace and Chillida room)	
Arriaga/Side event 5 Room f/rack Chairman Paper ID Arriaga/Side event 5 Sara Places Sara Place					
Arriagation event 6 Room firack Chairman Paper D Title Barejal Wave device device devicepment and testing Barejal Wave device devicepment and testing Luis Gato Edition Luis Gato Since Assessment of Chairman in Paper D Luis Gato Since Assessment of Chairman in Paper D Since Assessment of Since Assessment of Chairman in Paper D Since Assessment of Chairman in Since Assessment of China Components Examinate Since Assessment Since As				SafeWAVE project (by AZTI / WavEC)	
Arriagation event 6 Room firack Chairman Paper D Title Barejal Wave device device devicepment and testing Barejal Wave device devicepment and testing Luis Gato Edition Luis Gato Since Assessment of Chairman in Paper D Luis Gato Since Assessment of Chairman in Paper D Since Assessment of Since Assessment of Chairman in Paper D Since Assessment of Chairman in Since Assessment of China Components Examinate Since Assessment Since As	Mitxelena/Side event 4				
Arriagatilide event 6 Room firack Chairman Paper ID Title Bardjal War device device devicepment and feetings Early ID Luis Gato Early ID Luis Gato Early ID Luis Gato See See See See See See See See See Se	Mitxelena/Side event 4				
Personal Particles Chairman Paper ID Title Presenter State Chairman Pre					
Room filrack Chairman Paper ID Alexes Hydel Facility Seasons Vive Entroy Connected Dates. Presented International State Presented Bargial Wave device development and leave the Connected Dates of Entroy Connected Dates. Presented International State Stat			Te	echnology Performance Level Assessment (TPL) (by SANDIA LABTPL TEAM-)	
Paper D			To	schnology Performance Level Assessment (TPL) (by SANDIA LABTPL TEAM-)	
Barcial Barcial Barcial Usine device exvelopment and leading Explanation of the second procession of the second process of the second procession of the second processi	Baroja/Side event 5				
Barcial Barcial Barcial Usine device exvelopment and leading Explanation of the second procession of the second process of the second procession of the second processi	Baroja/Side event 5	,			
Barrigh Wave device development and testing Luis Gato Luis Gato The Commission of the Lunged Couldings Water Colors (Long Addition Natural Nature) And Colors (Long Addition Natural Nature) Luis Gato The Commission of the Lunged Couldings Water Colors (Long Addition Natural Nature) And Colors (Long Addition Natural N	Baroja/Side event 5 Arriaga/Side event 6		IEMMO Pro	ject, On the Cutting Edge of Tidal Blade Design and Materials (by Ocean Energy Europe)	
Wave device device devicepment and desting 274 Asserting the stage amplitude of a Stater Descript springing servings. Andreas Administration and desting 285 National Assessment of Critical Components Extended processor State (1994) and the Management State of Components (1994) and the Management State (1994) and the Management Sta	Baroja/Side event 5 Arriaga/Side event 6		IEMMO Pro	ject, On the Cutting Edge of Tidal Blade Design and Materials (by Ocean Energy Europe) Tale	Presenter
Oral Presentations Arriage A	Baroja/Side event 5 Arriaga/Side event 6 Room/Track		Paper ID 318 329	ject, On the Cutting Edge of Tidal Blade Design and Materials (by Ocean Energy Europe) Tale	Presenter Sara Russo Jingyi Yang
Presentations Arriage Arriage Arriage Arriage Arriage Arriage Arriage Free control for the control for	Baroja/Side event 5 Arriaga/Side event 6 Room/Track Baroja/ Wave device development	Chairman	Paper ID 318 329 555	ject, On the Cutting Edge of Tidal Blade Design and Materials (by Ocean Energy Europe) Title A faces Hold Floating Basakania: Wise Energy Consists Design Patients Experimental Investigations Ougan adapted code design for sever energy consession The Geometical Design of the Ladqued Coulding William Colorin Deling Addition National National	Presenter Sara Russo Jingyi Yang Chen-Chou Lin
Oral presentations Wave high digrams Aringsi Aringsi Wave high digrams Aringsi Aring	Baroja/Side event 5 Arriaga/Side event 6 Room/Track Baroja/ Wave device development	Chairman	Paper ID 318 329 555 274	Ject, On the Cutting Edge of Tidal Blade Design and Materials (by Ocean Energy Europe) Tida A Novel Hybrid Floating Broadeaster-Yales Energy Compute Desics: Preliminary Experimental Investigations Organization Charge of the Laborator Conductory Wiles Column Using Addiction Haused Nations Manuscrip Per suppreparation of Education Wiles Column Using Addiction Haused Nations Manuscrip Per suppreparation of Education Wiles Column Using Systems (Indicated Nations)	Presenter Sara Russo Jingyi Yang Chen-Chou Lin Andreas Asiikkis
Oral presentations Washington and the presentations which is a second of the second o	Baroja/Side event 5 Arriaga/Side event 6 Room/Track Baroja/ Wave device development	Chairman	Paper ID 318 329 555 274	ject, On the Cutting Edge of Tital Blade Design and Materials (by Ocean Energy Europe) Title A facult Hold Floating Blaskands: Wise Energy Connector Design Patients (Equations Departmental Investigations Organizations designed to the depart of connection Design of the Longost Confession Title Column Deling Affairs Natural Nations The Generation Design of the Longost Confession Title Column Deling Affairs Natural Nations Managing are suppressed of Color Congruents: Establish pressure have for DOM Serves usings converted.	Presenter Sara Russo Jingyi Yang Chen-Chou Lin Andreas Asiikkis Julia Fernandez Choza
1	Baroja/Side event 5 Arriaga/Side event 6 Room/Track Baroja/ Wave device development	Chairman	Paper ID 318 329 655 274 516 286	Ject, On the Cutting Edge of Tidal Blade Design and Materials (by Ocean Energy Europe) Tida Steen 1946 Flasting Bestween New Energy Constitut Desics. Pelanting Experimental Investigation Ougan-stagland data fielding for sever energy convention The Concentration Design of the Language Containing Water Course Using Addical Neural Nations Macering the supple amplitude of a feasif through an adaptation moving lightnessy survivage. Macering the supple amplitude of a feasif through an adaptation moving lightnessy survivage. Macering the supple amplitude of a feasif through an adaptation to the off OCM was every converter. Nationaphysistics WEC entry spirituation using the Middle Cleans Central Equation.	Prosenter Sara Russo Jingyi Yang Chen-Chou Lin Andreas Asiikkis Julia Femandez Chozz Habeebullah Abdulkad Beetrice Fenu
473 Information of Appendixment Processing Programment Processing on Programment Processing Conference	BarcjaSide event 5 ArtisgaSide event 6 Room/Track Barcjal Wave device development and testing	Chairman	Paper ID 318 329 655 274 516 286 355 378	Ject, On the Cutting Edge of Tital Blade Design and Materials (by Ocean Energy Europe) Title A four-Hold Planting Bealmania Wise Energy Connector Dates Printings Experimental Investigations Ougher adequate on any printing of the sea energy connector The Geometrical Design of the L. Indused Coulding Vision Column Dailing Afficial Natural National Management Design of the L. Indused Coulding Vision Column Dailing Afficial Natural National Management Design of the L. Indused Coulding Vision Column Dailing Afficial Natural National Management Design of the L. Indused Coulding Vision Column Dailing Afficial Natural National Management Design of the L. Indused Coulding Vision Column Dailing Afficial Natural National Natural Nat	Presenter Sara Russo Jingyi Yang Chen-Chou Lin Andreas Asiikkis Julia Fernandez Choza Habeebullah Abdulkad Bleatrice Fenu Mahdyeh Fariajwand
414 Institute invalidation of the second principle in Efficiency institute and ordered some June Observation	BarojaSide event 5 Arrisga*Side event 6 Room frack Wave derice development and testing	Chairman	Paper ID 318 329 555 274 516 286 355 376 379	Tatle A Novel Hybrit Flusting Boulancie: Very Energy Connector Device: Problemany Equinement Investigations Organization class of the Control Boulancie: Very Energy Connector Device: Problemany Equinement Investigations Organization class of the Control Boulancie: Very Energy Connector Device: Problemany Equinement Investigations Organization class of the Control Boulancie: Very Water Colorum Using Artificial Hausel Intended. Nacionalization for the Control Boulancie: Very Water Colorum Using Artificial Hausel Intended. Nacionalization of the Lincaped Control Water Control Boulancie: Very Section 1997 (Section 1997) Nacionalization of the Section Organization Control Boulancie: Very Section 1997 (Section 1997) Nacionalization of a new hybrid Intended Control Boulancie: Very Section 1997 Nacionalization of a new hybrid Intended Control Boulancie: Very Section 1997 Nacionalization of a new hybrid Intended Control Boulancie: Very Section 1997 Nacionalization of a new hybrid Intended Control Boulancie: Very Section 1997 Nacionalization of a new hybrid Intended Probleman (Probleman Intended Very Section 1997) Nacionalization of a new hybrid Intended Probleman (Probleman Intended Very Section 1997) Nacionalization of a new hybrid Intended Probleman (Probleman Intended Very Section 1997) Nacionalization of a new hybrid Intended Probleman (Probleman Intended Very Section 1997) Nacionalization of a new hybrid Intended Very Section 1997 Nacionalization of a new hybrid Intended Very Justice Probleman Intended Very Section 1997 Nacionalization of a new hybrid Intended Very Section 1997 Nacionalization of a new hybrid Intended Very Section 1997 Nacionalization of Action 1997 Nacionalization of Action 1997 Nacionalization of Action 1997 Nacionalization 1997 Nacion	Presenter Sara Russo Jingyi Yang Chen-Chou Lin Andreas Asiikkis Julia Fernandez Choza Habeebullah Abdulkad Beatrice Fenu Mahdyeh Farajyand Nicotas Faedo
404 Chescalisation of burdunct flow and the water of a total creams busine in processity to a stigs Substance Nature	BarojaSide event 5 Arrisga*Side event 6 Room frack Wave derice development and testing	Chairman	Paper ID 318 329 555 274 516 286 355 378 379	Ject, On the Cutting Edge of Tidal Blade Design and Materials (by Ocean Energy Europe) Title A Novel Hydrif Finaling Breakwater View Energy Comington Design Printing Systematics Investigations Organizations cannot design for ease energy commission Design Printing Systematics The Commission Design of the Lesbyed Credition William Commission The Commission Design of the Lesbyed Credition William Commission The Commission Design of the Lesbyed Credition William Commission The Commission WCC comp optimization using the Hostian Commission Systematics of COMM some energy commission This commission WCC comp optimization using the Hostian Commission Systematics This commission of the Commission Commission Systematics The Commission of International Commission Systematics The Commission of the Systematic Commission Commission Systems The Commission of the Systems of Commission Commission Systems The Commission of the Systems of Commission Commission Systems The Commission of the Systems of Commission Systems Systems of Commission Systems The Commission Systems of Commission Commission Systems Systems of Commission Systems The Commission Systems of Commission Systems Systems of Commission Systems The Commission Systems of Commission Systems Systems of Commission Systems The Commission Systems Syst	Presenter Sara Russo Jingyi Yang Chen-Chou Lin Andreas Asilikis Julia Fernandez Chozz Habeebullah Abdulkad Beatrice Fenu Mahdyeh Farayand Niciolas Feedo Ctaes Eskilsson
Oblical Total hydrodysamic Modelling Total Properties Modelling of Total Properties Modelling of Total Properties Modelling of Total Properties Modelling Total Properties Total Hydrodysamic Total Modelling Total Properties Total Hydrodysamic Modelling Total Properties Total Hydrodysamic Total Hydrodysam	BarojaSide event 5 Arrisga*Side event 6 Room frack Wave derice development and testing	Chairman	Paper ID 318 329 555 274 516 286 355 378 379 426 473	Ject, On the Cutting Edge of Tidal Blade Design and Materials (by Ocean Energy Europe) Title A foosi Hyder Prosing Beaseaber View Energy Come the Device. Positionary Experimental Investigations Organisation State of the State of State	Presenter Sara Russo Jingyi Yang Chen-Chou Lin Andreas Asilikis Julia Fernandez Chozz Habeebullah Abdulkad Beatrice Fenu Mahdyeh Farayand Niciolas Feedo Ctaes Eskilsson
Tidal hydrodynanic Gornal Manual Probability and validation of Studies assisted viscous-flow tidal before stitutions Manual Rentalities Manual Rentalities (Companion of Adulativi Line Molating of Tidal Power Kleas with ACP Measurements Normal Probability (Companion of Adulativi Line Molating of Tidal Power Kleas with ACP Measurements Normal Probability (Companion of Adulativi Line Molating of Tidal Power Kleas with ACP Measurements Normal Probability (Companion of Adulativi Line Molating of Tidal Power Kleas with ACP Measurements (Companion of Adulativi Line Molating of Tidal Power Kleas with ACP Measurements (Companion of Adulativi Line Molating of Tidal Power Kleas with ACP Measurements (Companion of Adulativi Line Molating of Tidal Power Kleas with ACP Measurements (Companion of Adulativi Line Molating of Tidal Power Kleas with ACP Measurements (Companion of Adulativi Line Molating of Tidal Power Kleas with ACP Measurements (Companion of Adulativi Line Molating of Tidal Power Kleas with ACP Measurements (Companion of Adulativi Line Molating of Tidal Power Kleas with ACP Measurements (Companion of Adulativi Line Molating of Tidal Power Kleas with ACP Measurements (Companion of Adulativi Line Molating of Tidal Power Kleas with ACP Measurements (Companion of Adulativi Line Molating of Tidal Power Kleas with ACP Measurements (Companion of Adulativi Line Molating of Tidal Power Kleas with ACP Measurements (Companion of Adulativi Line Molating of Tidal Power Kleas with ACP Measurements (Companion of Adulativi Line Molating of Tidal Power Kleas with ACP Measurements (Companion of Adulativi Line Molating of Tidal Power Kleas with ACP Measurements (Companion of Adulativi Line Molating of Tidal Power Kleas with ACP Measurements (Companion of Adulativi Line Molating of Tidal Power Kleas with ACP Measurements (Companion of Adulativi Line Molating of Tidal Power Kleas with ACP Measurements (Companion of Adulativi Line Molating of Tidal Power Kleas with ACP Measurements (Companion of Adulativi Line Molating of Tidal Power	BarojaSide event 5 Arrisga*Side event 6 Room frack Wave derice development and testing	Chairman	Paper ID 318 329 655 274 518 286 355 376 379 428 473 474 407	Ject, On the Cutting Edge of Tital Blade Design and Materials (by Ocean Energy Europe) Title A formit Molif Planing Bealmania Wise Energy Comestor Design Partners Departmental Investigations Oughan adequate on the Design of the Level Comestor Design Partners Design of the Level Comestor Design of the Design of the Design Comestor Design of the Desig	Presenter Sara Russo Jangy Yang Chen Chou Lin Andreas Asilikis Julia Fernande Chozz Hotseeulah Adulhad Beshick Feru Mandysh Fanyland Nooles Fardo Class Edition David Open Jana Onzaphose
544 Companion of Adulator Line Mobiling of Tital Power Xias with ACCP Measurements Normal Probabate Technical	Baroja/Side event 5 Arrisga/Side event 6 Room/Frack Baroja/ Wave device development and testing Wave by/side/pramik modelling	Chairman	Paper ID 318 329 555 274 516 286 355 378 379 426 473 474 407	Ject, On the Cutting Edge of Tital Blade Design and Materials (by Ocean Energy Europe) Title A formit Molif Planing Bealmania Wise Energy Comestor Design Partners Departmental Investigations Oughan adequate on the Design of the Level Comestor Design Partners Design of the Level Comestor Design of the Design of the Design Comestor Design of the Desig	Presenter Sara Russo Janyi Yang Chen-Chou Lin Andreas Aulika Julia Fernandez Chozz Habeouliah Abdulkad Beator Fandyand Mohdiyah Fandyand Nordas Faedo Class Esikhan David Opten Jane Ozsaghovo How Eduards Suldaman Munda
	Baroja/Side event 5 Arrisga/Side event 6 Room/Frack Baroja/ Wave device development and testing Wave by/side/pramik modelling	Chairman	Paper ID 318 329 555 274 516 286 355 378 428 473 474 407 464	Ject, On the Cutting Edge of Tidal Blade Design and Materials (by Ocean Energy Europe) Title A New Hydrif Flusting Beasewate: Year Energy Complete Design Planting Special Investigations Organization of Complete Planting Beasewate: View Energy Complete Design Planting Special Investigations Design of the Ledward Continue William Special Investigation (Investigation Complete Special Investigation Complete Special Investigation Complete Special Investigation Complete Special Investigation (Investigation Complete Special Investigation Investigation Complete Special Investigation Inve	Presenter Sara Ruse Jingyl Yang Chen-Chou Lim Andross Assikis Andross Assikis Besikis Fernandes Choloss Habreshullah Adultas Mandross Ferna Mendyaya Fanyanda Cises Eskinson Jana Chrossphros Hen Eduarda Goden Bresidinan Hundle Gden Bresidin
	Baroja/Side event 5 Arrisga/Side event 6 Room/Frack Baroja/ Wave device development and testing Wave by/side/pramik modelling	Chairman	Paper ID 318 329 555 274 516 288 355 378 379 428 473 474 407 464 568 316	Ject, On the Cutting Edge of Tital Elade Design and Materials (by Ocean Energy Europe) Title Steen Hydrif Training Breamann Weet Energy Committee Cross. Proteining Engineering Investigations Organizations of Engineering Breamann Weet Energy Committee Cross. Proteining Engineering Investigations Organizations of Engineering Engineering Committee Cross. Proteining States Investigations The Genometric Design for the Unspeed Continuery Water Continuer Using Antices Research Research States and Engineering Committee Continuers Continuers Continuers Research States and Engineering Continuers Continuers Continuers Research States and Engineering Continuers Research States and Engineering Continuers Research States and Engineering Continuers Research Continuers of Engineering Proteining Continuers Research Continuers of Engineering Proteining Continuers Research Continuers of Engineering Proteining Continuers Research Continuers of Engineering States and Engineering Continuers Research Continuer	Presenter Sara Russo Janyi Yang Chen-Chou Lin Andreas Aulika Julia Fernandez Chozz Habeouliah Abdulkad Beator Fandyand Mohdiyah Fandyand Nordas Faedo Class Esikhan David Opten Jane Ozsaghovo How Eduards Suldaman Munda
	BarojaSide event 5 Arrisiga Side event 6 Room / Frack Wave device development and teating Wave hydrodynamic modelling Tidal hydrodynamic modelling	Chairman	Paper ID 318 329 555 274 516 288 355 378 379 428 473 474 407 464 568 316	Title A food Hydrid Floating Bleaswater. Were Energy Comington Design and Materials (by Ocean Energy Europe) Title A food Hydrid Floating Bleaswater. Were Energy Comington Design. Pleasware y Experiences Investigations. Operating of the Commission of the Commission Design of the Commission of th	Presenter San Risso Jangy Yang Chen-Chou Lin Andreas Aukkis Julia Fernandez Chozz Hobeobullah Abdulada Beatrics Feru Meningen Ferujavant Meningen Ferujavant Less Edition David Opiem Janes Onzephone How Eduards Salaiman Hautali Gana Brestdnier Manua Rentschiler Manua Rentschiler
Oral presentations.		Bargial Laboal Tridal device development and testing Arragai Wave lyaridynamic modaling Tridal device development and testing Room/Track Room/Track Tridal device development and testing Wave lyaridynamic modaling Wave lyaridynamic modaling Wave lyaridynamic modaling	Wave device development and testing Tidal device development and testing Arragad Wave byteriopment and testing Marragad Wave byteriopment and testing Refresi Room (Track Chairman Diego Vicinarza Alberto Peña and testing Wave byteriopment and testing Wave device development and testing Wave byteriopment and testing Wave byteriopment and testing Wave byteriopment and testing Wave byteriopment and testing Tidal device development and testing Wave byteriopment and testing Tidal device development and testing Wave byteriopment and testing Tidal device development and testing Tidal device development and testing Disposition of testing and testing Tidal device development and testing Daniel Coles Arragad wave device development and testing Daniel Coles Arragad wave deviced development and testing Base Russon development and testing	Bargial Class Eaklisson 166 206 352	Room Proof to Control Control Fig. 10



				Wed	nesday September 6		
08:00-09:00					Registration (Main Hall)		08:00-09:00
		Room /Track	Chairman	Paper ID	Title	Presenter	
				291	Simulations of extreme wave load on an oscillating water column wave energy converter On the survivability of WECs through submergence and passive controllers	Nhu Nguyen Elie Al Shami	09:00-09:15 09:15-09:30
		Baroja/	Marker Upper	393	A probabilistic framework for fatigue damage of lift based wave energy converters	Abel Arredondo-Galeana	09:30-09:45
		Wave device development and testing	Martyn Hann	382	Preliminary design of an OWC wave energy converter battery charger	D.N. Ferreira	09:45-10:00
				540 550	Development & performance enhancement of an AUV wave-charging system A methodology to measure the energy flux captured by a submerged U-OWC by using	Brian Rosenberg Luana Gurnari	10:00-10:15 10:15-10:30
				137	temperature sensors 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 The Development of a passive blade-pitch mechanism to reduce the loads on a tidal turbine	Shun-Han Yang	09:15-09:30
		Laboa/ Tidal device development and testing	Gustavo Esteban	328	in high-flow conditions Effects of non-isotropic blockage on a tidal turbine modeled with the Actuator-Line method	Thomas Summers Enzo Mascrier	09:30-09:45 09:45-10:00
				400	Intracycle Control Sensitivity of Cross-Flow Turbines	Ari Athair	10:00-10:15
09:00-10:30	Oral presentations			402	Development of an Unmanned Mobile Current Turbine Platform Validation of the energy resource assessment with experimental data for the site selection of	Manhar Dhanak	10:15-10:30
				258 302	a tidal turbine in the Tagus River estuary. On tidal array layout sensitivity to regional and device model representation	Bénédicte Hoofd Connor Jordan	09:00-09:15 09:15-09:30
		Arriaga <i>l</i> Tidal resource	Cameron Johnstone	457	Resource assessment using a combination of seabed mounted and semi-stationary vessel- mounted ADCP measurements	Larissa Perez	09:30-09:45
		characterization		228 171	Measurements of tidal flow variability in Ramsey Sound, Pembrokeshire Investigation of Low Order Parameters Affecting Tidal Stream Energy Resource Assessments	Jon Miles Misha Patel	09:45-10:00 10:00-10:15
				178	Mapping the Unresolved Tidal Resource in Estuaries	Matt Lewis	10:15-10:30
				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 Siting tidal energy projects through resource characterization and environmental	Jezella Peraza Andrea Copping	09:15-09:30 09:30-09:45
		Oteiza/EIA	Juan Bald	623	Considerations 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 Maricarmen Guerra Paris	10:00-10:15 10:15-10:30
10:30-11:00			Refreshments, net		Measurements of the wake from a floating tidal energy platform costers exhibition (Terrace and Chillida room)	Juneamon Gudia Pails	10:15-10:30
		Room /Track	Chairman	Paper ID	Title	Presenter	
				270 330	Biofilm prevention in the generator of a direct drive wave energy converter Hydro-elastic interaction of polymer materials with regular waves	Nick Baker Krishnendu Puzhukkil	11:00-11:15 11:15-11:30
		Baroja/ Wave device development	Jochen Weber	380	Degrees of Freedom Effects on a Laboratory Scale WEC Point Absorber	Courtney Beringer	11:30-11:45
		and testing	Jochen Weber	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. Graphene oxide reinforced room-temperature-vulcanising elastomers for flexible wave energy	Paulino Meneses Gonzalez Xinyu Wang	12:00-12:15 12:15-12:30
				418	Design, Manufacture and Testing of an Open-Source Benchmark Composite Hydrokinetic Turbine Blade	Miguel Gonzale-Montijo	11:00-11:15
11:00-12:30	Oral	Laboa/		456 553	Wake characterization of tidal turbines in the Pentland Firth using vessel-mounted ADCP measurements Tidal Turbine Benchmarking Project: Stage I - Steady Flow Experiments	Marion Huchet S.W. Tucker Harvey	11:15-11:30 11:30-11:45
11.00-12.30	presentations	Tidal device development and testing	Iñigo Bidaguren	574	Tidal Turbine Benchmarking Project: Stage I - Steady Flow Experiments 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
				323	Influence of the spatial variation of upstream velocity on a vertical-axis tidal turbine	Lilia Flores Mateo	12:15-12:30 11:00-11:15
				339	performance Tracking a large vortex at a tidal power site	Philippe Mercier	11:15-11:30
		Arriaga <i>l</i> Tidal resource	Vincenzo Nava	577	Overview of Resource and Turbine Modelling in the Tidal Stream Industry Energiser project: TIGER Evaluating the performance of turbulence closure models for tidal stream resource	Edward MacKay Zhaoqing Yang	11:30-11:45
		characterization		165 296	characterization Tidal turbine wake characterization by vessel-mounted ADCP data analysis	Patxi Garcia Novo	11:45-12:00 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					n & posters exhibition ce and Chillida room)		12:30-14:00
		ľ	1				
		Room /Track	Chairman	Paper ID 263	Title A Dual Hardware-In-the-Loop (DHIL) platform for testing and validation of WEC subsystems	Presenter 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
		Baroja/ Wave device development	Iñigo Albaina	354 481	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 Analysis of data from the full-scale prototype testing of the WASP – A novel wave measuring	Nial McLean Brendan Walsh	14:30-14:45
		and testing		484	buoy. Open Sea Trial of a Wave-Energy Converter at Tuticorin Port - Challenges	Abdus Samad	14:45-15:00 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
				390 428	Turbine fatigue load prediction from field measurements of waves and turbulence Development of a Tool to Optimise Tidal Stream Energy Sites	Hannah Mullings Paul Evans	14:00-14:15 14:15-14:30
14:00-15:30	Oral presentations	Arriaga/ Tidal resource	Luke Blunden	432	Principles of ADCP deployment methodologies	Penny Jeffcoate	14:30-14:45
		characterization		467	Assessing wave-turbulence separation from ADCP measurements with artifical flow data Multi-criteria analysis to evaluate tidal energy potential in France	Michael Togneri Florian Castillo	14:45-15:00
				478 563	Multi-criteria analysis to evaluate tidal energy potential in France Improved Modelling of Vertical Velocity Profiles at a Tidal Energy Site	Florian Castillo Lilli Enders	15:00-15:15 15:15-15:30
				303	SafeWAVE The contribution of the SafeWAVE EU project to the future development of ocean energy ITSASDRONE, an autonomous marine surface drone for fish monitoring around wave energy	Juan Bald	14:00-14:15
		Oteiza/		326 600	ITSASDRONE, an autonomous marine surface drone for fish monitoring around wave energy devices Empowering communities to participate in marine energy planning and development	Ainhize Uriarte	14:15-14:30 14:30-14:45
		Environemental impact and appraisal	Andrea Copping	374	Assessing the effect of onshore and offshore Wave Energy Converters on seafloor integrity	Grace Chang Iñigo Muxika	14:45-15:00
				554	combining image-based and acoustic methods Effects of the spacing between two hydroknetic turbines on the bedforms by numerical simulations Underwater noise impact assessment of a wave energy converter in the northern Atlantic	Fatima Khaled	15:00-15:15
15:30-16:00			Refreshments, net	675 working & p	(Spain) costers exhibition (Terrace and Chillida room)	José Antonio García	15:15-15:30 15:30-16:00
		Mitxelena/Side event 7	"SUPPORTING THE FUT	URE OF OC	EAN ENERGY HERE AND NOW; A GLIMPSE OF BASQUE PUBLIC SECTOR SCALE-UP" (by EVE)	INITIATIVES TO FOSTER	16:00-17:30
	1						
16:00-17:30	Side events	Baroja/Side event 8	Wa	ave Energy	Converter Simulator (WEC-Sim) (by SANDIA LABWEC-SIM TEAI	и-)	16:00-17:30
16:00-17:30	Side events	Baroja/Side event 8	Wa	ave Energy	Converter Simulator (WEC-Sim) (by SANDIA LABWEC-SIM TEAI	и-)	16:00-17:30
16:00-17:30	Side events		"Instrumentation				
16:00-17:30	Side events	Baroja/Side event 8 Arriaga/Side event 9	"Instrumentation		Converter Simulator (WEC-Sim) (by SANDIA LABWEC-SIM TEAR Monitoring around Marine Energy Devices" (by Coastal Science		16:00-17:30 16:00-17:30
16:00-17:30	Side events		"Instrumentation Instrumentation for Envi				
16:00-17:30	Side events		"Instrumentation Instrumentation for Envi				
	Side events		"Instrumentation Instrumentation for Envi	ironmental I	Monitoring around Marine Energy Devices" (by Coastal Science Gala Dinner	Division-PNNL and	16:00-17:30
16:00-17:30 20:00-22:00			"Instrumentation Instrumentation for Envi	ironmental I	Monitoring around Marine Energy Devices" (by Coastal Science	Division-PNNL and	



			Th	ursday September 7		
D				Registration (Main Hall)		
	Room /Track	Chairman	Paper ID	A time domain approach for the optimal control of		Presenter Mohamed Shabara
			493	Optimisation of Air turbines for OWC Wave Energ Climates		Ander Zarketa-Astigarraga
	Laboa/ Grid integration, power	Joao Henriques	500	Integrated hydrodynamic-electrical hardware mod ocean demonstrator		Judith Apsley
	take-off and control		409 592	On data-based control-oriented modelling applica The Performance evaluation of 30kW class OWC breakwater		Edoardo Pasta Kilwom Kim
			161	Investigation on the extreme peak mooring force	distribution of a point absorber wave energy	Zahra Shahroozi
			140	Analysis of the North Atlantic offshore energy flux Wave Spectral Analysis for designing Wave Ener		Matias Alday Jesus Portilla-Yandun
Oral presentations	Arriaga/ Wave resource	Pasguala Contactabila	275	Long term wave load trends against offshore mor Biscay	nopile structures: A case study in the Bay of	Nahia Martinez-Iturricastillo
	characterization	Pasquale Contestabile	279	Numerical modelling of wave and tidal current into parameters		Tian Tan Giulia Cervelli
			205 305	On the errors in annual energy yield estimation d Validation of ERA5 Wave Energy Flux through Sa		Jon Saenz
			154	Do recent renewable energy policy changes in Ire wave energy technology development sector? Integration of wave energy into Energy Systems:	aland satisfy the requirements of a nascent	Carrie Anne Barry
	Oteiza/ Economical, social, legal		157 306	forward Can Risk-Based Approaches benefit future Marin and consenting processes?	e Renewable Energy deployment, planning	George Lavidas Emma Verling
	and political aspects of ocean energy	Pablo Ruiz-Minguela	351	Towards increased social acceptability of marine		Niall P. Dunphy
			362 397	Environmental Effects of MRE: Advancing the Inc Engagement Informing development of a socioeconomic data		Mikaela Freeman Deborah Rose
00		Refreshments, net		posters exhibition (Terrace and C	hillida room)	
	Room /Track	Chairman	Paper ID 453	Title The Impact of Uncertainty on the Control of a Mu		Presenter Carrie Hall
			531	Spectral control co-design of wave energy conve		Yerai Peña-Sanchez
	Baroja/ Wave device development	Urko Izquierdo	548	A new seawater low-head turbine for the OBREC Experimental investigation on the hydrodynamic	performance of a pile-supported OWC-type	Pasquale Contestabile
	and testing		549	breakwater Weight Reduction Methodologies for Wave Energ		Yusuf Almalki Michael O'Shea
				Wave Farms Integration in a 100% renewable iso		
			215 309	and grid compliance analysis. Wave-to-Wire Control of an Oscillating Water Colu		Marcos Blanco Marco Rosati
	Laboa/ Grid integration, power	Eider Robles	510	Wells Turbine Maximizing Wave Energy Converter Power Extract Stiffness Magnetic Spring		Jeff T. Grasberger
	take-off and control	Lider Nobics	561 346	Development of control strategies for novel syste project Enhancing energy system resilience using tidal st		James Kelly Danny Coles
Oral presentations			551	Analysis of Ocean Energy Integration in Ibero-An		Marcos Lafoz
			529	Impact of Resource Uncertainties on the Design of		Markel Peñalba Shiaw-Yih Tang
	Arriaga/		539 159	Discussions on Wave energy period in higher was Internal waves: A potentially untapped marine en		Shiaw-Yin Tang Kastubha Raghukumar
	Wave resource characterization Oteiza/	Jesús M. Blanco	197	Feasibility of wave energy harvesting in the Ligur Identification of optimal sites for the deployment of		Manuel Corrales-González
			378 558	of a technology-centred approach	sting Offshore Devices at Marine Renewable	Riccardo Novo Pasquale Contestabile
			398	Techno-economic analysis of marine hybrid cluster		Emilian Gorr-Pozzi
			399 452	Case Study		Sarah Palmer Thalita Nazare
	Economical, social, legal and political aspects of ocean energy	Peter Frigaard	340	On the complementarity of wave, tidal, wind and	Hafiz Ashan Said	
	-		281 335	Empowering Communities to Participate in Marine A Comparison of the European Regulatory Frame	Energy Planning and Development work for the deployment of Wave Energy	Grace Chang
00				Converters		Claudio Moscoloni
.00			(Terr	ace and Chillida room)		
	Room /Track	Chairman	Paper ID 350	Title Performance enhancement of pitching WECs via		Presenter Marco Fontana
			357	Numerical investigation of the energy performanc multi-body power take-off		Félix Elefant
	Baroja/ Wave device development	Tony Lewis	395 439	Hybrid wind-wave systems: The case of the Voltu Analysis of the viability of a radial Double Decker		Maximilian Hengstmann
	and testing		445	Column devices An Early Design Phase Method for Characterizing Archetypes		o Vega-Valladares Aeron Roach
				Upsampling wave temporal resolution: Investigati	ng wave parameters and the influence or	
			564 619	WEC power performance On spatial interpolation of ocean energy source v		Hannah Mankle Leonardo Gambarelli
Oral presentations	Arriaga/ Wave energy	Jose L. Villate	584	Numerical Study on Overtopping Performance of Converters		Guoliang Zhang
1			475 310	The application of temporal gating in the measure Analysis of the impact of floater interactions on the		Ben Cazzolato Alva Bechlenberg
				Quaptable nefinitear PTO		
				Ocean France Madata Con		Jochem Weber
			507	Ocean Energy: Markets – Currency – Impact. I Development Space Using human-centered design to develop a natio		
	Oteiza/ Economical, social, legal	James Benhin	223 385	Development Space Using human-centered design to develop a natio the United States Choosing Wave Energy Devices for Community L	nal research landscape for marine energy in ed Marine Energy Development	Samantha Quinn Molly Grear
		James Benhin	223 385 388	Development space Using human-centered design to develop a natio the United States Choosing Wave Energy Devices for Community L A Socioeconomic, Environmental, and Regulator Technologies Floating wind and wave energy technologies: app	nal research landscape for marine energy in ed Marine Energy Development y Assessment for Current Energy Converter	Samantha Quinn Molly Grear Dominic Forbush
	Economical, social, legal and political aspects of	James Benhin	223 385	Development space Using human-centered design to develop a natio the United States Choosing Wave Energy Devices for Community L A Socioeconomic, Environmental, and Regulaton Technologies	nal research landscape for marine energy in ed Marine Energy Development / Assessment for Current Energy Converter polications, synergies and role in	Samantha Quinn Molly Grear
	Economical, social, legal and political aspects of	Jesús M. Blanco	223 385 388 413	Loveopriment space with the control of the control	nal research landscape for marine energy in ed Marine Energy Development I/Assessment for Current Energy Conventer solications, synergies and role in in: can we improve perception of ocean 15:40-15:45	Samantha Quinn Molly Grear Dominic Forbush Craig White
	Economical, social, legal and political aspects of		223 385 388 413	University of the Committee of the Commi	nal research landscape for marine energy in ed Marine Energy Development // Assessment for Current Energy Converter solications, synergies and role in in: can we improve perception of ocean 15:40-15:45	Samantha Quinn Molly Grear Dominic Forbush Craig White
15 Closing ceremony	Economical, social, legal and political aspects of	Jesús M. Blanco Jose L. Villate	223 385 388 413	University of the Committee Committe	nal research landscape for marine energy in ed Marine Energy Development I/Assessment for Current Energy Conventer solications, synergies and role in in: can we improve perception of ocean 15:40-15:45	Samantha Quinn Molly Grear Dominic Forbush Craig White
	Economical, social, legal and political aspects of ocean energy	Jesús M. Bianco Jose L. Villate Iñigo Ansola Bruce Cameron C H Jo	223 385 388 413	Unweepprent space Unequality of the Charles of the	and research landscape for marine energy in ed Marine Energy Development (Assessment for Current Energy Conventer solications, synergies and role in in: can we improve perception of ocean 15:40-15:45 15:45-15:50 15:55-16:00 16:00-16:05	Samantha Quinn Molly Grear Dominic Forbush Craig White
	Economical, social, legal and political aspects of ocean energy	Jesús M. Blanco Jose L. Villate Iñigo Ansola Bruce Cameron C H Jo Cameron Johnstone	223 385 388 413 436	Levelophieth Späce and design to develop a national to the United States Choosing Weive Energy Devices for Community L. A Sociococomic Environmental, and Regulation Choosing Weive Energy Devices for Community L. A Sociococomic Environmental and Regulation Choosing Weive Energy Communication and Social Copies and decarbonization in Portugal decarbonization in Portugal decarbonization in Portugal Weive energy communication and social opposition of the Community of the Communities of t	nal research landscape for marine energy in ed Marine Energy Development / Assessment for Current Energy Converter locations, synenges and role in in: can we improve perception of ocean 15:40-15:45 15:45-15:50 15:50-15:55 15:55-16:00 16:00-16:05 16:05-16:10	Samantha Quinn Molly Grear Dominic Forbush Craig White
	Economical, social, legal and political aspects of ocean energy	Jesús M. Bianco Jose L. Villate Iñigo Ansola Bruce Cameron C H Jo	223 385 388 413 436	Levelophieth Späce and design to develop a national to the United States Choosing Weive Energy Devices for Community L. A Sociococomic Environmental, and Regulation Choosing Weive Energy Devices for Community L. A Sociococomic Environmental and Regulation Choosing Weive Energy Communication and Social Copies and decarbonization in Portugal decarbonization in Portugal decarbonization in Portugal Weive energy communication and social opposition of the Community of the Communities of t	and research landscape for marine energy in ed Marine Energy Development (Assessment for Current Energy Conventer solications, synergies and role in in: can we improve perception of ocean 15:40-15:45 15:45-15:50 15:55-16:00 16:00-16:05	Samantha Quinn Molly Grear Dominic Forbush Craig White
	Economical, social, legal and political aspects of ocean energy	Jesús M. Blanco Jose L. Villate Iñigo Ansola Bruce Cameron C H Jo Cameron Johnstone	223 385 388 413 436	Levelophieth Späce and design to develop a national to the United States Choosing Weive Energy Devices for Community L. A Sociococomic Environmental, and Regulation Choosing Weive Energy Devices for Community L. A Sociococomic Environmental and Regulation Choosing Weive Energy Communication and Social Copies and decarbonization in Portugal decarbonization in Portugal decarbonization in Portugal Weive energy communication and social opposition of the Community of the Communities of t	nal research landscape for marine energy in ed Marine Energy Development / Assessment for Current Energy Converter locations, synenges and role in in: can we improve perception of ocean 15:40-15:45 15:45-15:50 15:50-15:55 15:55-16:00 16:00-16:05 16:05-16:10	Samantha Quinn Molly Grear Dominic Forbush Craig White
	Economical, social, legal and political aspects of ocean energy	Jesús M. Blanco Jose L. Villate Iñigo Ansola Bruce Cameron C H Jo Cameron Johnstone	223 385 388 413 436	Loveoprient Space Mining human-centered design to develop a natio and Charles design to develop the Charles design and the Charles design to develop the Charles design and the Charles design to develop the Charles design the Charles design to develop the Charles design to the Charles design the Charles design to the Charles design to the Charles design the Charles design to the Charles design to the Charles design to the Charles design the Charles design to the Charles design the Ch	nal research landscape for marine energy in ed Marine Energy Development / Assessment for Current Energy Converter locations, synenges and role in in: can we improve perception of ocean 15:40-15:45 15:45-15:50 15:50-15:55 15:55-16:00 16:00-16:05 16:05-16:10	Samantha Quinn Molly Grear Dominic Forbush Craig White
Social	Economical, social, legal and political aspects of ocean energy	Jesús M. Blanco Jose L. Villate Iñigo Ansola Bruce Cameron C H Jo Cameron Johnstone	223 385 388 413 436	University of the control of the con	nal research landscape for marine energy in ed Marine Energy Development / Assessment for Current Energy Converter locations, synenges and role in in: can we improve perception of ocean 15:40-15:45 15:45-15:50 15:50-15:55 15:55-16:00 16:00-16:05 16:05-16:10	Samantha Quinn Molly Grear Dominic Forbush Craig White
ceremony Social	Economical, social, legal and political aspects of ocean energy	Jesús M. Blanco Jose L. Villate Iñigo Ansola Bruce Cameron C H Jo Cameron Johnstone	223 385 388 413 436	Unweepinent space Uniting human-centered design to develop a natio Debug human-centered hu	nal research landscape for marine energy in ed Marine Energy Development / Assessment for Current Energy Converter locations, synenges and role in in: can we improve perception of ocean 15:40-15:45 15:45-15:50 15:50-15:55 15:55-16:00 16:00-16:05 16:05-16:10	Samantha Quinn Molly Grear Dominic Forbush Craig White
ceremony	Economical, social, legal and political aspects of ocean energy	Jesús M. Blanco Jose L. Villate Iñigo Ansola Bruce Cameron C H Jo Cameron Johnstone	223 385 388 413 436	University of the control of the con	nal research landscape for marine energy in ed Marine Energy Development / Assessment for Current Energy Converter locations, synenges and role in in: can we improve perception of ocean 15:40-15:45 15:45-15:50 15:50-15:55 15:55-16:00 16:00-16:05 16:05-16:10	Samantha Quinn Molly Grear Dominic Forbush Craig White



Paper ID	Title of the poster	Authors' List
342	Vortex induced vibrations of marine risers: validating turbulence models	Chang, Wang; Antonis Vakis; Arthur Veldman; Eize, Stamhuis
313	Grid value of co-located offshore renewable energy	Erik, Jonasson; Irina, Temiz
545	Preliminary performance assessment from towing tank testing of a horizontal-axis turbine	David, Lande-Sudall; Sondre, Tolleifsen; Kjetil, Gravelsæter; Harald, Moen; Jan Bartl
377	Life Cycle Assessment of a wave energy device – LiftWEC	Paula, Bastos; Fiona, Devoy-McAuliffe; Abdel, Arredondo-Galeana; Julia Chozas; Paul, Lamont-Kane; Pedro. Almeida Vinagre
184	Experimental passive and reactive control of a Laboratory Scale WEC Point Absorber	Bret, Bosma; Courtney, Beringer; Bryson, Robertson;
586	Combining offshore wind and wave energy to supply a big size desalination plant	Beatriz, Del Rio Gamero; Julieta, Schallenberg Rodríguez; Pedro, Suarez Arocha
422	Design, installation, capacities and expenses of an indoor multipurpose modular 2D wafe flume and circulating water channel	Iñigo, Bidaguren; Natalia, Montalban; Urko, Izquierdo; Iñigo, Albaina; Alberto, Peña; Egoitz, Urtaran; Jesus Maria, Blanco:
483	New design options for the improvement of the Mutriku power plant	Urko, Izquierdo; Iñigo, Bidaguren; Gustavo Adolfo, Esteban; Miguel Angel, Gomez Solaeche; Juan Luis Larrabe: Jesus María, Blanco
578	Experimental Optimization Environment for Developing an Intracycle Pitch Control in Cross Flow Turbines	Stefan, Hoemer; Roberto, Leidhold; Shokoofeh, Abbaszadeh; Karla, Ruiz-Hussmann; Timo, Bennecke; Zhao, Zhao; Christian-Tora, Weber; Pierre-Luc, Delafin;
441	Increase in power generation by calculating maximum amount of drainage water using a real-time water level prediction A.I.	HeeJin, Kwack; SungHun, Lee; ByunJoon, Jun; SangJun, Min; JeonA, Baek; SeoYeong, Lee
570	Assessment of tidal energy resources in the Strait of Magellan in southern Chile	Leandro, Suarez Atias; Cristian, Escauriaza; Megan Williams; Maricarmen, Guerra;
387	Quality Function Deployment methodology as a tool for sustainable design of ocean technologies	Selef Farcia Orozco
325	Marine Renewable Energies and Maritime Spatial Planning: different national proposals for their legal and spatial context	Iratxe Mentxaka; Ibon Galparsoro; Emma Verling; Inés Machado; Enored LebBourhis; Thomas Soulard; Juan Bald
542	A Filtering device for improving the quality of cooling water in turbine generator of Sihwa Tidal Power Plant	Taekyun Kin; Hee Jin Kwak; Jee Hun Bang; Mosol Kim; Bem sug Kim
276	A new type of wave tank: prototype and proof of concept	Joannes Berque; Iñigo Zarate; Jesus Maria Blanco; Iñigo Bidaguren; Imanol Touzon; Luisa Fernandez
488	Comparison of physics-based and machine learning methods for phase-resolved prediction of waves measured in the field	Jialun Chen; Thobani Hlophe; Wenhua Zhao; Ian A. Milne; David Gunawan; Adi Kurniawan; Hyg Wolgamot; Paul H. Tavlor: Jana Orszaghova
170	Wave Excitation Tests on a Fixed Sphere: Comparison of Physical Wave Basin Setups	Jacob Andersen; Morten Bech Kramer
368	Development of the Exowave Oscillating Wave Surge Converter	Sarah Krogh Iversen; Jacob Andersen; Lars Wigant; Peter Frigaard