IOWTC

2nd International Offshore Wind Technical Conference

The Fortress Suites
Corinthia Hotel St George's Bay
St Julian's, MALTA
3 - 6 November 2019

HOSTED BY

ASME
SETTING THE STANDARD

OOAE

L-Università ta' Malta

PRINCIPLE POWER

UNIVERSITY OF MASSACHUSETTS AMHERST 1863

Welcome from the Conference Chairs

September 2019

On behalf of the Ocean, Offshore and Artic Engineering (OOAE) Division of the ASME, we are pleased to welcome you to the 2nd ASME International Offshore Wind Conference and to the beautiful island of Malta, located at the centre of the Mediterranean Sea. This event follows the first and highly successful event held last year in San Francisco, USA.

Offshore wind energy technology is breaking new ground and the significant advancements seen over recent years have convincingly demonstrated the potential of this technology in becoming a mainstream and reliable clean energy source for decarbonising the world economy, despite the engineering and operational challenges that the tough marine environment brings about. The offshore wind industry is booming, fostering blue growth opportunities. Collaboration between the various stakeholders, including academia, industry and policy makers, will remain essential to ensure a sustainable future for the sector, to overcome existing challenges to exploit the enormous wind resources available in our seas as effectively as possible.

IOWTC 2019 is a great opportunity for sharing the latest insights of academic and industrial research in offshore wind energy as well as to experience the unique environment of Malta, the smallest EU member state with a wealth of history and a centre for maritime activities for many years, serving the main trade routes between Europe, North Africa and the Middle East. We do hope that while you are here, you will also find time to visit some of the many historical places in this charming archipelago.

This year's technical program is organized into 20 different sessions covering a range of topics including floating concepts, mooring and foundation design, model testing, numerical modelling, hydrodynamics, drivetrains, structural analysis, metocean analysis and wind farm operation. Over 50 papers are being presented, all reviewed by an international scientific committee.

A successful technical program depends on the many volunteers who serve as conference and technical program chairs, session chairs, and other administrative roles, as well as authors and reviewers. We would like to express our sincere gratitude to the success of this event. Special thanks go to all ASME staff as well as to the Conference Unit of the University of Malta, whose hard work behind the scenes is greatly appreciated. We would like to thank our sponsoring organizations for providing their generous financial support.

We hope that you will enjoy your stay in Malta and that your participation in this event will be rewarding and memorable. We also hope that IOWTC 2019 will stimulate further networking collaboration in the development of offshore wind technology.

Prof. Tonio Sant
Dept. of Mechanical Engineering
University of Malta

Dr Inġ. Robert N. Farrugia
Institute for Sustainable Energy
University of Malta

Dr Dominique Roddier
Naval Architect
Advisor on Ocean Energy
Systems

Prof. Krish Thiagarajan Sharman
Endowed Chair in Renewable
Energy
Dept. of Mechanical and
Industrial Engineering
University of Massachusetts
Amherst

Attendee Information

Internet Access
Wi-Fi is available as follows: Network name is: **Stgoerges**
Username: **corinthia**
Password: **corinthia**

IOWTC

2nd International Offshore Wind Technical Conference

Registration

The Registration Desk will be located as follows:

On Sunday, 3rd November: 16:00 – 18:30
Foyer outside the Mistral Hall, Marina Hotel Corinthia Beach Resort, St. George's Bay, St Julian's

On:
Monday, 4th November: 08:00 – 17:00
Tuesday, 5th November: 08:00 – 17:00
Wednesday, 6th November: 08:00 – 17:00
Foyer outside the Fortress Suites, Corinthia Hotel St. George's Bay, St Julian's

Lunch and Coffee Breaks

Lunches will be served at the Fra Martino Restaurant at the Corinthia Hotel St George's Bay.

Coffee Breaks will be in the Foyer outside the Fortress Suites, Corinthia Hotel St George's Bay, St Julian's.

Welcome Reception

Sunday, 3rd November 18:30 – 20:00
Mistral Hall, Marina Hotel Corinthia Beach Resort, St. George's Bay, St Julian's

Join us to kick off the inaugural International Offshore Wind Technical Conference 2019 with appetizers and drinks at the Welcome Reception.

All conference registrants are welcome.

Tour and Conference Banquet

Tuesday, 5th November: 18:00 – 22:30
Transport departs from the Corinthia Hotel St. George's Bay, St Julian's at 18:00.

A guided walking tour of Mdina, Malta's ancient capital, will be followed by the conference banquet at the Palazzo de Piro within the fortified city.

A ticket is included in your registration fee and additional tickets can be purchased at the registration desk (subject to availability). Please inform us beforehand to enable us to make reservations for the banquet and transport by sending an e-mail to the University of Malta's Conference and Events Unit: conferences@um.edu.mt

Plenary Session

Innovation in Floating Offshore Wind Power
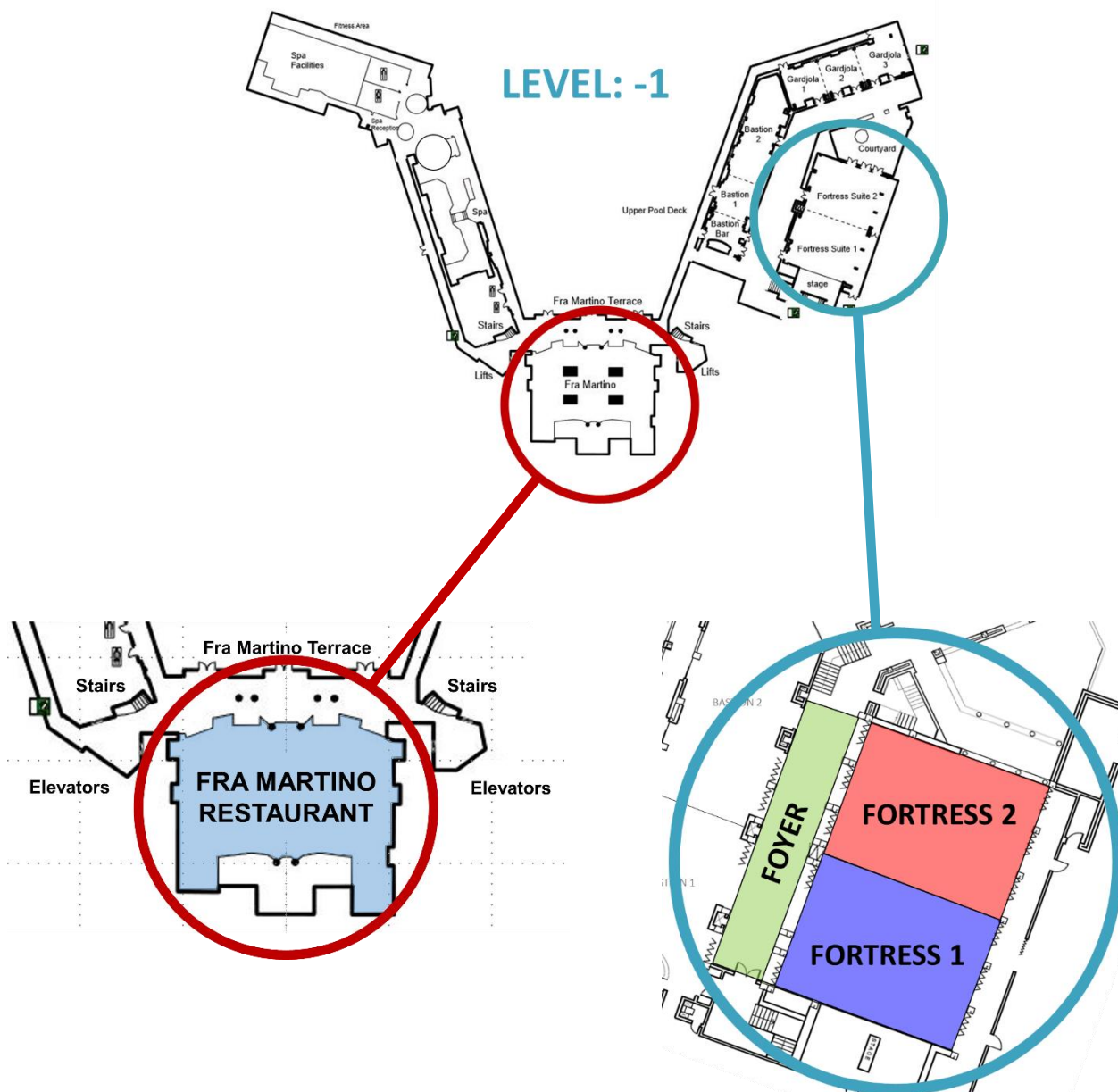Keynote Speaker: Henrik STIESDAL
Stiesdal A/S

IOWTC

2nd International Offshore Wind Technical Conference

The Fortress Suites, Corinthia Hotel St. George's Bay, St Julian's

LEVEL: -1

Fitness Area
Spa Facilities
Spa Reception
Spa
Stairs
Lifts
Fra Martino Terrace
Fra Martino
Upper Pool Deck
Bastion Bar
Bastion 1
Bastion 2
Stairs
Lifts
Courtyard
Fortress Suite 2
Fortress Suite 1
stage
Gardjola 1
Gardjola 2
Gardjola 3

Fra Martino Terrace
Stairs
Elevators
Stairs
Elevators
FRA MARTINO RESTAURANT

BASTION 2
BASTION 1
FOYER
FORTRESS 2
FORTRESS 1

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2nd International Offshore Wind Technical Conference

The Program at a Glance

Sunday 3rd November	Time	Monday 4th November		Tuesday 5th November		Wednesday 6th November	
	08:00 – 17:00	Registration — The Foyer - Fortress Suites, Corinthia Hotel St George's Bay					
	09:00 – 10:30	Opening Ceremony Keynote – Plenary Session Fortress 1		Session 1-4-1 Modelling Fortress 1	Session 1-5-1 Wave & Wind Loading Fortress 2	Session 2-3-1 Hydrodynamics & Experimental Campaign Fortress 1	OC6 Meeting 1 Fortress 2
	10:30 – 11:00	Coffee Break — The Foyer - Fortress Suites					
	11:00 – 12:30	Session 1-6-1 Structural Analysis Fortress 1	Session 2-2-1 Design & Operational Challenges Fortress 2	Session 1-4-2 Model Testing Fortress 1	Session 1-5-2 Numerical Methods Fortress 2	Session 2-3-2 Structural Analysis Fortress 1	OC6 Meeting 2 Fortress 2
	12:30 – 13:30	Lunch — Fra Martino Restaurant (On Site)					
	13:30 – 15:00	Session 1-2-1 Floating Concepts I Fortress 1	Session 1-3-1 Mooring Design & Analysis Fortress 2	Session 1-9-1 Special Topics Fortress 1	Session 1-5-3 Global Responses Fortress 2		OC6 Meeting 3 Fortress 2
	15:00 – 15:30	Coffee Break — The Foyer – Fortress Suites					
	15:30 -17:00	Session 1-2-2 Floating Concepts II Fortress 1	Session 1-3-2 Foundations Fortress 2	Session 1-10-1 Offshore Wind Turbines & Drivetrains Fortress 1	Session 1-8-1 Offshore Farms Fortress 2		
16:00 – 18:30 Registration The Foyer - Mistral Hall The Marina Hotel at the Corinthia Beach Resort							
18:30 – 20:30 Welcome Reception Mistral Hall The Marina Hotel at the Corinthia Beach Resort				18:00 – 22:30 Tour & Banquet Restaurant – Palazzo de Piro, Mdina (Offsite)			

Legend:
- Foyers of respective halls/ suites & Offsite Events
- Fortress 1 event
- Fortress 2 event

DETAILED PROGRAM
DAY 1

Sunday 3rd November
18:30 – 20:30

Welcome Reception
Mistral Hall
The Marina Hotel at the Corinthia Beach Resort

DAY 2

Monday 4th November
09:00 – 10:30

Opening Ceremony and Keynote
Fortress 1

Opening Ceremony

Prof. Tonio Sant and **Dr Ing. Robert N. Farrugia** - *Conference Co-Chairs, IOWTC 2019*

Dr Dominique Roddier and **Prof. Krish Thiagarajan Sharman** - *Technical Program Co-Chairs*

Hon. Joe Mizzi - *Minister for Energy and Water Management, Government of Malta*

Prof. Alfred J. Vella - *Rector, University of Malta*

Keynote - Plenary Session

Innovation in Floating Offshore Wind Power
Henrik Stiesdal - *Stiesdal A/S*

Henrik Stiesdal is one of the pioneers of the modern wind industry. He built his first wind turbine in 1976 and in 1978 designed one of the first commercial wind turbines, licensed by Vestas in 1979. Stiesdal worked with Vestas until 1986 and joined Bonus Energy, later Siemens Wind Power, in 1987. In 1988 he was appointed Technical Manager and in 2000 Chief Technology Officer. During his 40 years in the wind industry, Stiesdal has worked with all aspects of wind turbine technology and has been instrumental for the development of offshore wind power, including the world's first offshore wind farm in 1991 and the world's floating offshore wind turbine in 2009. Following his retirement from Siemens in 2014, Stiesdal has continued working on industrialised wind turbine foundations, energy storage and carbon-negative fuels.

Monday 4th November
10:30 – 11:00

Coffee Break
The Foyer - Fortress Suites

Monday 4th November
11:00 – 12:30

Presentations

Session 1-6-1: Structural Analysis *Fortress 1*	Session 2-2-1: Design & Operational Challenges *Fortress 2*
A Consistent Structural Damping Model For Integrated And Superelement Modelling Of Offshore Wind Turbine Support Structures In Bladed IOWTC2019-7541 **William Collier** DNV GL, UK	**Integrating Compressed Air Energy Storage (CAES) in Floating Offshore Wind Turbines** IOWTC2019-7533 **Peter P. Vella**, Tonio Sant, Robert N. Farrugia University of Malta, Malta
Dynamic Load Response Analysis on Yaw Bearing of Wind Turbine to Turbulent Wind IOWTC2019-7588 **Jianwen Xu** Newcastle University, UK	**Numerical Analysis of VIV on Drillstring during CPT in Shallow and High-Current Sea** IOWTC2019-7534 **Marcio Yamamoto[1]**, Sotaro Masanobu[1], Joji Yamamoto[1], Katsuo Ban[2], Masayuki Ikenobu[2], Tamotsu Izumida[2], Takashi Sakamoto[2] 1 National Maritime Research Institute, Japan; 2 Fukada Salvage & Marine Works Co. Ltd., Japan
A Comparison Of Time Domain Seismic Analysis Methods For Offshore Wind Turbine Structures: Using A Superelement Approach IOWTC2019-7562 **Laurens M. Alblas[1]**, Corine E. de Winter[2] 1 DNV GL, Norway; 2 Siemens Gamesa Renewable Energy, The Netherlands	**Research on Underwater Vehicle for Monitoring of offshore Wind Generation Systems** IOWTC2019-7506 **Ikuo Yamamoto**, Akihiro Morinaga, Murray Lawn Nagasaki University, Japan
Time Domain Fatigue Life Analysis Of Offshore Jacket Structure IOWTC2019-7591 **Yan Wei Wu** Ship and Ocean Industries R&D Center, Taiwan	**Experimental Offshore Floating Wind Turbine Prototype and Numerical Analysis During Harsh and Production Events** IOWTC2019-7602 **Marc Guyot**, Gerard Le Bihan, Julien Templai, Pierre Parenthoine, Aengus Connolly, Marc Le Boulluec, Cyrille de Mourgues 1 EOLINK, France; 2 WOOD, Ireland; 3 IFREMER, France

Monday 4th November
12:30 – 13:30

Lunch
Fra Martino Restaurant - (On site)

Foyers of respective halls/ suites & Offsite Events
Fortress 1 event
Fortress 2 event

Monday 4th November **13:30 – 15:00**

Presentations

Session 1-2-1: Floating Concepts I *Fortress 1*	**Session 1-3-1: Mooring Design and Analysis** *Fortress 2*
Loading and Structural Analysis of the Self-Aligning Hystoh-Floating Wind Turbine Concept IOWTC2019-7551 **Markus Starr**, Andreas Manjock DNV GL, Germany	**Optimization of the Dynamic Response of Semi-submersibles: Influence of the Mooring System** IOWTC2019-7553 **Shengtao Zhou[1]**, Frank Lemmer[2], Wei Yu[2], Po Wen Cheng[2], Chao Li[1], Yiqing Xiao[1] 1 Harbin Institute of Technology, Shenzhen, China; 2 University of Stuttgart, Germany
WindCrete Fatigue Verification IOWTC2019-7564 **Pau Trubat**, Jesús M. Baira, Adrián Yagü, Climent Molins Universitat de Catalunya, Spain	**Optimizing Shared Mooring and Anchoring Strength for Floating Offshore Wind Turbine Arrays** IOWTC2019-7560 **Michael Devin[1]**, Spencer Hallowell[2], Sanjay Arwade[2], Bryony DuPont[1] 1 Oregon State University, USA; 2 University of Massachusetts Amherst, USA
Concept Design and Analysis of Wind-Tracing Floating Offshore Wind Turbines IOWTC2019-7580 **Shuijin Li[1]**, Azin Lamei[1], Masoud Hayatdavoodi[1], Carlos Wong[2] 1University of Dundee, UK; 2 CBJ-Kaluosi-Qianghai Group, Hong Kong	**Demonstration of the Intelligent Mooring System for Floating Offshore Wind** IOWTC2019-7544 **Magnus Harrold[1],** Philipp R. Thies[1], David Newsam[2], Pete Halswell[1], Claudio Bittencourt [3], Ferreira, Lars Johanning[1] 1 University of Exeter, UK; 2 Teqniqa Systems Ltd., UK; 3 DNV GL, UK
	Experimental study of the station keeping of a floater using passive flapping flat plates in waves IOWTC2019-7527 **Wollim Sim**, Hyunkyoung Shin, Rupesh Kumar University of Ulsan, Korea

Monday 4th November **15:00 – 15:30**

Coffee Break *The Foyer - Fortress Suites*

Foyers of respective halls/ suites & Offsite Events
Fortress 1 event
Fortress 2 event

Monday 4th November
15:30 – 17:00

Presentations

Session 1-2-2: Floating Concepts II *Fortress 1*	Session 1-3-2: Foundations *Fortress 2*
Effects of Four Moon Pools on a Floating System Installed with Twin-VAWTs IOWTC2019-7598 **Tomoki Ikoma**, Mitsuru Nakamura, Satsuya Moritsu, Yasuhiro Aida, Koichi Masuda, Hiroaki Eto Nihon University, Japan	**A Comparison of Floating Offshore Wind Semi-taut and Catenary Mooring Systems using Scale Model Test Data** IOWTC2019-7570 **Anthony M. Viselli**, Christopher K Allen, William West, Andrew Goupee, Matthew Fowler, Habib Dagher University of Maine, USA
A Low Specific Mass, Free Floating Wind Energy Concept Up to 40 MW IOWTC2019-7590 **William Alexander** HiSeas Wind Energy, USA	**Evaluation of Seepag Flow During Installation of Suction Caisson Foundation in Homogenous Sand and Sand Overlaying Inclined Clay** IOWTC2019-7616 **Koohyar Faizi[1]**, Asaad Faramarzi[1], Samir Dirar[1], Moura Mehravar[2] 1 University of Birmingham, UK, 2 Aston University, UK
Flexibility of Standard FOWT Designs Utilizing Oil& Gas Practices IOWTC2019-7635 **Lars Samuelsson** American Bureau of Shipping (ABS), USA	**Structure Design and Assessment of a Floating Foundation for Offshore Wind Turbines** IOWTC2019-7594 **Qi Ye**, Shanshan Cheng, Boksun Kim, Keri Collins, Gregorio Iglesias University of Plymouth, UK
	A systematic study on fatigue loads of offshore wind turbines on monopiles foundation IOWTC2019-7583 **Lihua Peng**, Chao Wang, Shengkai Niu Ming Yang Smart Energy Group Limited, China

End of DAY 2

DAY 3

Presentations

Session 1-4-1: Modelling *Fortress 1*	Session 1-5-1: Wave & Wind Loading *Fortress 2*
Experimental Study on Flow-Induced Motions (FIM) of a Floating Offshore Wind Turbine Semi-Submersible Type (OC4 Phase II Floater) IOWTC2019-7513 **Rodolfo T. Gonçalves[1]**, Maria E. F. Chame[2], Leandro S. P. Silva[2], Arjen Koop[3], Shinichiro Hirabayashi[1], Hideyuki Suzuki[1] 1 The University of Tokyo, Japan ; 2 University of São Paulo, Brazil; 3 MARIN, The Netherlands	**Effect of Nacelle Drag on the Performance of a Floating Wind Turbine Platform** IOWTC2019-7595 **Daewoong Son**, Pauline Louazel, Bingbin Yu Principle Power Inc., USA
Large aeroelastic model of a floating offshore wind turbine: mechanical and mechatronics design IOWTC2019-7537 **Muggiasca Sara[1],** Alessandro Fontanella[1], Federico Taruffi[1], Hermes Giberti[2], Alan Facchinetti[2], Marco Belloli[2], Marco Bollati[2] 1 Politecnico Di Milano, Italy; 2 Universita' di Pavia, Italy	**Substructure Flexibility and Member-Level Load Capabilities for Floating Offshore Wind Turbines in OpenFAST** IOWTC2019-7566 **Jason Jonkman[1]**, Rick Damiani[1], Emmanuel Branlard[1], Matthew Hall[1], Greg Hayman[2], Amy Robertson[1] 1 National Renewable Energy Laboratory, USA; 2 Hayman Consulting LLC, USA
Lifting line free wake vortex filament method for the evaluation of floating offshore wind turbines. First step: validation for fixed wind turbines IOWTC2019-7540 **Raquel Martín-San-Román[1, 2]**, José Azcona-Armendáriz[1], Álvaro Cuerva-Tejero[2] 1 CENER, Spain; 2 Universidad Politécnica de Madrid, Spain	**Extreme Wave Loads On Monopile Substructures: Precomputed Kinematics Coupled with The Pressure Impulse Slamming Load Model** IOWTC2019-7618 **Fabio Pierella**, Amin Ghadirian, Henrik Bredmose Technical University of Denmark, Denmark
Damping identification of the TetraSpar floater in two configurations with Operational Modal Analysis IOWTC2019-7623 **Antonio Pegalajar-Jurado**, Freddy J. Madsen, Henrik Bredmose Technical University of Denmark, Denmark	**Numerical research on the interaction of multidirectional random waves with a large-scale offshore wind turbine foundation** IOWTC2019-7597 **Xinran Ji** Hainan University, China

Coffee Break
The Foyer - Fortress Suites

Tuesday 5th November
11:00 – 12:30

Presentations

Session 1-4-2: Model Testing *Fortress 1*	Session 1-5-2: Numerical Methods *Fortress 2*
Bichromatic Wave Selection for Validation of the Difference Frequency Transfer Function for the OC6 Test Campaign IOWTC2019-7572 **Nathan Tom**[1], Amy Robertson[1], Manuela Bohm[2], Jason Jonkman[1], Fabian Wendt[1] 1 National Renewable Energy Laboratory, USA; 2 Institute of Structural Analysis, Germany	**Modelling the Aerodynamics of a Floating Wind Turbine Model using a CFD-based Actuator Disc Method** IOWTC2019-7526 **Ryan Bezzina**, Tonio Sant, Daniel Micallef University of Malta, Malta
Hybrid Model Tests for Floating Offshore Wind Turbines IOWTC2019-7575 **Maxime Thys**[1], Alessandro Fontanella[2], Federico Taruffi[2], Marco Belloli[2], Petter A. Berthelsen[1] 1 SINTEF Ocean, 2 Politecnico di Milano	**Simulation of an Offshore Wind Turbine using a Weakly-Compressible CFD Solver coupled with a Blade Element Turbine Model** IOWTC2019-7600 **Baptiste ELIE**, Guillaume OGER, David Le Touzé Ecole Centrale Nantes, France
Effects of Variations on the Experimental Set-Up on the Motion Response of a Floating Wind Semisubmersible (OC4 Type) IOWTC2019-7543 **Sebastien Gueydon** MARIN, The Netherlands	**A modified free-wake vortex ring model for the aerodynamics of floating offshore wind turbines** IOWTC2019-7610 **Jing Dong**[1], Axelle Viré[1], Carlos Simão Ferreira[1], Zhangrui Li[2], Gerard van Bussel[1] 1 TUDelft, the Netherlands; 2 Shanghai Electric Wind Power Group Co. Ltd., China
Physical Model Testing of the TetraSpar Demo Floating Wind Turbine Prototype IOWTC2019-7561 **Michael Borg**[1], Anthony M. Viselli[2], Christopher K Allen[2], Matthew Fowler[2], Christoffer Sigshøj[3], Andrea Grech La Rosa[3], Morten T. Andersen[4], Henrik Stiesdal[3] 1 BORG R&D, Malta; 2 University of Maine, USA; 3 Stiesdal Offshore Technologies, Denmark; 4 Aalborg University, Denmark	**CFD Simulation of Semi-Submersible Floating Offshore Wind Turbine under Pitch Decay Motion** IOWTC2019-7515 **Yu Wang**[1], Hamn-Ching Chen[1], Guilherme Vaz[2], Simon Burmester[3] 1 Texas A&M University, USA; 2 MARIN, The Netherlands; 3 University of Duisburg-Essen, Germany

Tuesday 5th November
12:30 – 13:30

Lunch
Fra Martino Restaurant - (On site)

Tuesday 5th November
13:30 – 15:00

Presentations

Session 1-9-1: Special Topics *Fortress 1*	Session 1-5-3: Global Responses *Fortress 2*
Discussion on Hazard Analysis and Management Regulations of Offshore Wind Power Maritime Engineering IOWTC2019-7507 **Lien Kwei Chien**, Chen-Yang Fang, Chia-Yeh Wang, Huai-Cheng Wu, Yi-Shan Wu National Taiwan Ocean University, R.O.C.	**Disparity Analysis for Three Floating Wind Turbine Aerodynamics Codes in Comparison** IOWTC2019-7509 **Tonio Sant**, Daniel Micallef University of Malta, Malta
Assessing the Impact of Integrating Energy Storage on the Dynamic Response of a Spar-type Floating Wind Turbine IOWTC2019-7577 **Charise Cutajar**, Tonio Sant, Robert N. Farrugia, Daniel Buhagiar University of Malta, Malta	**Machine Learning-Aided Assessment of Wind Turbine Energy Losses due to Blade Leading Edge Damage** IOWTC2019-7578 **Anna Cavazzini[1]**, Edmondo Minisci[2], Michele Sergio Campobasso[1] 1 Lancaster University, UK; 2 Strathclyde University, UK
Investigation of Wind Flow Conditions on the Flight Endurance of UAVs in Hovering Flight - A Preliminary Study IOWTC2019-7514 **Leo Scicluna**, Tonio Sant, Robert N. Farrugia University of Malta, Malta	**Analysis of Environmental Conditions for the Conceptual Design of 200-MW Floating Offshore Wind Farm in the East Sea, Korea** IOWTC2019-7605 **Hyunkyoung Shin**, Youngjae Yu, Thanh Dam Pham, Hyeonjeong Ahn, Byoungcheon Seo, Junbae Kim University of Ulsan, Korea
Performance evaluation of dynamic HV cables with Al and Cu conductors for Floating Offshore Wind turbines IOWTC2019-7536 **Philipp R. Thies[1]**, Konstantinos Grivas[2], Magnus Harrold[1], Georgios Georgallis[3], Lars Johanning[1] 1 University of Exeter, UK; 2 Fulgor AS, Greece; 3 Hellenic Cables, Greece	**Global Responses and Loads Analysis of a 750-kW Semi-Submersible Floating Offshore Wind Turbine Under Extreme Environmental Conditions** IOWTC2019-7607 **Thanh Dam Pham**, Junbae Kim, Byoungcheon Seo, Rupesh Kumar, Youngjae Yu, Hyunkyoung Shin University of Ulsan, Korea

Tuesday 5th November
15:00 – 15:30

Coffee Break
The Foyer - Fortress Suites

Foyers of respective halls/ suites & Offsite Events
Fortress 1 event
Fortress 2 event

Tuesday 5th November
15:30 – 17:00

Presentations

Session 1-10-1: Offshore Wind Turbines & Drivetrains *Fortress 1*	Session 1-8-1: Offshore Farms *Fortress 2*
Advanced Vibration Signal Processing Using Edge Computing to Monitor Wind Turbine Drivetrains IOWTC2019-7622 **Cédric Peeters**, Pieter-Jan Daems, Timothy Verstraeten, Ann Nowé, Jan Helsen Vrije Universiteit Brussel, Belgium	**Effects of Wind Farm Down-Regulation in the Offshore Wind Farm Alpha Ventus** IOWTC2019-7554 **Matthias Kretschmer**, Vasilis Pettas, Po Wen Cheng University of Stuttgart, Germany
Condition Monitoring of Wind Turbine Drivetrain Bearings IOWTC2019-7603 **Konstantinos Gryllias**, Junyu Qi, Alex Ricardo Mauricio, Chenyu Liu KU Leuven, Belgium	**Investigating the Influence of MCP Uncertainties on the Energy Storage Capacity Requirements for Offshore Wind Farms** IOWTC2019-7504 **Michael Denis Mifsud**, Tonio Sant, Robert N. Farrugia University of Malta, Malta
Design and Dynamic Analysis of a Compact 10 MW Medium Speed Gearbox for Offshore Wind Turbines IOWTC2019-7617 **Shuaishuai Wang**, Amir R. Nejad, Torgeir Moan Norwegian University of Science & Technology, Norway	**Numerical Modeling and the Prediction of Significant Parameters for Wind monitoring** IOWTC2019-7518 **Victorita C. Radulescu** University POLITEHNICA of Bucharest, Romania
Experimental Validation of Angular Velocity Measurements for Wind Turbines Drivetrain Condition Monitoring IOWTC2019-7620 **Farid Khazaeli Moghadam**, Amir R. Nejad Norwegian University of Science & Technology, Norway	

Tuesday 5th November
18:00 – 22:30

Tour & Banquet
Mdina Tour (Offsite) -Restaurant – Palazzo de Piro (Offsite)

End of DAY 3

Foyers of respective halls/ suites & Offsite Events
Fortress 1 event
Fortress 2 event

DAY 4

Presentations

REFOS: 2-3-1: Hydrodynamics & Experimental Campaign *Fortress 1*	OC6 Meeting: Session 1 *Fortress 2*
Site Selection and Metocean Conditions IOWTC2019-7627 **Takvor Soukissian** Hellenic Centre of Marine Research, Greece	
Approximate coupled analysis in frequency domain and tendons loadings in operational and extreme environments IOWTC2019-7628 **Dimitrios Konispoliatis** National Technical University of Athens, Greece	
Fully Coupled analysis in time domain IOWTC2019-7629 **Dimitrios Manolas** National Technical University of Athens, Greece	
Wave tank experimental campaign and analysis for a 10MW Wind Turbine TLP Platform, with Wave Energy Converter devices IOWTC2019-7630 **Georgios Katsaounis** National Technical University of Athens, Greece	

Wednesday 6th November
10:30 – 11:00

Coffee Break
The Foyer - Fortress Suites

Foyers of respective halls/ suites & Offsite Events
Fortress 1 event
Fortress 2 event

Wednesday 6th November 11:00 – 12:30	
Presentations	
REFOS: 2-3-2: Structural Analysis *Fortress 1*	**OC6 Meeting: Session 2** *Fortress 2*
Structural design of REFOS platform hull IOWTC2019-7631 **Spyros Karamanos** University of Thessaly, Greece	
Mechanical testing of REFOS platform welded joints IOWTC2019-7632 **Spyros Karamanos** University of Thessaly, Greece	
REFOS tendon system design IOWTC2019-7633 **Elisabetta Mecozzi** RINA Group, Italy	
REFOS Lifecycle Analysis IOWTC2019-7634 **Despina Zymni** ELLAKTOR S.A., Greece	

Wednesday 6th November 12:30 – 13:30
Lunch *Fra Martino Restaurant - (On site)*

Wednesday 6th November 13:30 – 15:00	
Presentations	
	OC6 Meeting: Session 3 *Fortress 2*

Wednesday 6th November 15:00 – 15:30
Coffee Break *The Foyer - Fortress Suites*

End of DAY 4 & CLOSE

IOWTC

2nd International Offshore Wind Technical Conference

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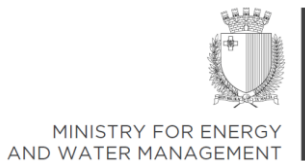
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BUREAU VERITAS 1828

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Bureau Veritas has been active for more than 15 years in Offshore Wind Industry, including Type Certification of wind turbines, Project Certification of bottom-fixed and floating offshore wind farms, certification of offshore substations, regulatory control of lifting equipment and electrical installations, manufacturing surveillance of wind turbine components, and on-site inspection of various components such as blades and gearboxes.

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