

Maurizio Collu

List of Publications by Year in descending order

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Version: 2024-02-01

82
papers

1,536
citations

331670

21
h-index

345221

36
g-index

84
all docs

84
docs citations

84
times ranked

994
citing authors

#	ARTICLE	IF	CITATIONS
1	Digital twins of the mooring line tension for floating offshore wind turbines to improve monitoring, lifespan, and safety. <i>Journal of Ocean Engineering and Marine Energy</i> , 2022, 8, 1-16.	1.7	5
2	Wave energy extraction and hydroelastic response reduction of modular floating breakwaters as array wave energy converters integrated into a very large floating structure. <i>Applied Energy</i> , 2022, 306, 117953.	10.1	31
3	A Review of Predictive and Prescriptive Offshore Wind Farm Operation and Maintenance. <i>Energies</i> , 2022, 15, 504.	3.1	19
4	Energy conversion and hydrodynamic analysis of multi-degree-of-freedom wave energy converters integrated into a semi-submersible platform. <i>Energy Conversion and Management</i> , 2022, 252, 115075.	9.2	27
5	Optimisation-based system designs for deep offshore wind farms including power to gas technologies. <i>Applied Energy</i> , 2022, 310, 118540.	10.1	12
6	A fully integrated optimization framework for designing a complex geometry offshore wind turbine spar-type floating support structure. <i>Wind Energy Science</i> , 2022, 7, 259-281.	3.3	8
7	Multidisciplinary design analysis and optimisation frameworks for floating offshore wind turbines: State of the art. <i>Ocean Engineering</i> , 2022, 251, 111002.	4.3	7
8	Hydrodynamic characteristics of a hybrid oscillating water column-oscillating buoy wave energy converter integrated into a I€-type floating breakwater. <i>Renewable and Sustainable Energy Reviews</i> , 2022, 161, 112299.	16.4	25
9	Operation and maintenance for floating wind turbines: A review. <i>Renewable and Sustainable Energy Reviews</i> , 2022, 163, 112499.	16.4	28
10	Development of a multi rotor floating offshore system based on vertical axis wind turbines. <i>Journal of Physics: Conference Series</i> , 2022, 2257, 012002.	0.4	1
11	A review of operations and maintenance modelling with considerations for novel wind turbine concepts. <i>Renewable and Sustainable Energy Reviews</i> , 2022, 165, 112581.	16.4	22
12	Parametrisation Scheme for Multidisciplinary Design Analysis and Optimisation of a Floating Offshore Wind Turbine Substructure â€œ OC3 5MW Case Study. <i>Journal of Physics: Conference Series</i> , 2022, 2265, 042009.	0.4	1
13	A Flexible, Multi-fidelity Levelised Cost of Energy Model for Floating Offshore Wind Turbines Multidisciplinary Design, Analysis and Optimisation Approaches. <i>Journal of Physics: Conference Series</i> , 2022, 2265, 042029.	0.4	1
14	Analysis of tripod supported offshore wind turbines under conditions of marine growth. <i>Ocean Engineering</i> , 2021, 220, 108441.	4.3	9
15	Development of a Framework for Wind Turbine Design and Optimization. <i>Modelling</i> , 2021, 2, 105-128.	1.4	14
16	Scaling strategies for multi-purpose floating structures physical modeling: state of art and new perspectives. <i>Applied Ocean Research</i> , 2021, 108, 102487.	4.1	21
17	A Comparison of the Turbine Tower Damping Effects of a Series of Back Twisted Active Pitch-to-Stall Blades for a Spar and a Semi-Submersible FOWT. <i>Journal of Offshore Mechanics and Arctic Engineering</i> , 2021, 143, .	1.2	0
18	Modeling Small Scale Impacts of Multi-Purpose Platforms: An Ecosystem Approach. <i>Frontiers in Marine Science</i> , 2021, 8, .	2.5	10

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19	A methodology to develop reduced-order models to support the operation and maintenance of offshore wind turbines. <i>Applied Energy</i> , 2020, 259, 114228.	10.1	21
20	Motion Response and Energy Conversion Performance of a Heaving Point Absorber Wave Energy Converter. <i>Frontiers in Energy Research</i> , 2020, 8, .	2.3	17
21	Optimal design and performance analysis of a hybrid system combining a floating wind platform and wave energy converters. <i>Applied Energy</i> , 2020, 269, 114998.	10.1	105
22	Development and Verification of an Aero-Hydro-Servo-Elastic Coupled Model of Dynamics for FOWT, Based on the MoWiT Library. <i>Energies</i> , 2020, 13, 1974.	3.1	17
23	Design optimization of the OC3 phase IV floating spar-buoy, based on global limit states. <i>Ocean Engineering</i> , 2020, 202, 107186.	4.3	21
24	Integrating Wind Turbines and Fish Farms: An Evaluation of Potential Risks to Marine and Coastal Bird Species. <i>Journal of Marine Science and Engineering</i> , 2020, 8, 414.	2.6	7
25	Wind power prediction based on high-frequency SCADA data along with isolation forest and deep learning neural networks. <i>International Journal of Electrical Power and Energy Systems</i> , 2020, 118, 105835.	5.5	93
26	Analysis of the coupled dynamic response of an offshore floating multi-purpose platform for the Blue Economy. <i>Ocean Engineering</i> , 2020, 217, 107943.	4.3	28
27	Offshore multi-purpose platforms for a Blue Growth: A technological, environmental and socio-economic review. <i>Science of the Total Environment</i> , 2020, 734, 138256.	8.0	49
28	Analysis of the Effect of a Series of Back Twist Blade Configurations for an Active Pitch-To-Stall Floating Offshore Wind Turbine. <i>Journal of Offshore Mechanics and Arctic Engineering</i> , 2020, 142, .	1.2	3
29	Influence of the Mission Profile on The Lifetime Modelling of the Wind Turbine Power Converter “A Review. , 2020, , .		1
30	Failure Modes and Effects Analysis of an Aquaculture Feeding Barge Equipped with Wind Turbines. , 2020, , .		0
31	Floating Spar-Type Offshore Wind Turbine Hydrodynamic Response Characterisation: a Computational Cost Aware Approach. , 2020, , .		1
32	Operations and Maintenance for Multipurpose Offshore Platforms using Statistical Weather Window Analysis. , 2020, , .		2
33	Model-Free Semi-Active Structural Control of Floating Wind Turbines. , 2020, , .		1
34	Investigation on PTO control of a Combined Axisymmetric Buoy-WEC(CAB-WEC). <i>Ocean Engineering</i> , 2019, 188, 106245.	4.3	7
35	Reducing Tower Fatigue through Blade Back Twist and Active Pitch-to-Stall Control Strategy for a Semi-Submersible Floating Offshore Wind Turbine. <i>Energies</i> , 2019, 12, 1897.	3.1	9
36	An analysis of the impact of an advanced aero-hydro-servo-elastic model of dynamics on the generator-converter dynamics, for an offshore fixed 5MW PMSG wind turbine. , 2019, , .		1

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37	Performance Analysis of a Sea Javelin Wave Energy Converter in Irregular Wave. Journal of Coastal Research, 2019, 83, 932.	0.3	4
38	Harmonized and systematic assessment of microalgae energy potential for biodiesel production. Renewable and Sustainable Energy Reviews, 2019, 101, 614-624.	16.4	22
39	New Engineering Approach for the Development and Demonstration of a Multi-Purpose Platform for the Blue Growth Economy. , 2019, , .		5
40	Frequency Domain Analysis of a Hybrid Aquaculture-Wind Turbine Offshore Floating System. , 2019, , .		5
41	Analysis of the Coupled Dynamics of an Offshore Floating Multi-Purpose Platform: Part A " Rigid Body Analysis. , 2019, , .		4
42	Analysis of the Coupled Dynamics of an Offshore Floating Multi-Purpose Platform: Part B " Hydro-Elastic Analysis With Flexible Support Platform. , 2019, , .		4
43	Progress on the Development of a Holistic Coupled Model of Dynamics for Offshore Wind Farms: Phase II " Study on a Data-Driven Based Reduced-Order Model for a Single Wind Turbine. , 2019, , .		1
44	Larger MW-Class Floater Designs Without Upscaling?: A Direct Optimization Approach. , 2019, , .		4
45	On mooring line tension and fatigue prediction for offshore vertical axis wind turbines: A comparison of lumped mass and quasi-static approaches. Wind Engineering, 2018, 42, 97-107.	1.9	4
46	Critical review of floating support structures for offshore wind farm deployment. Journal of Physics: Conference Series, 2018, 1104, 012007.	0.4	30
47	Progress on the Development of a Holistic Coupled Model of Dynamics for Offshore Wind Farms: Phase I " Aero-Hydro-Servo-Elastic Model, With Drive Train Model, for a Single Wind Turbine. , 2018, , .		2
48	O&M Cost-Based FMECA: Identification and Ranking of the Most Critical Components for 2-4 MW Geared Offshore Wind Turbines. Journal of Physics: Conference Series, 2018, 1102, 012039.	0.4	8
49	On intermediate-scale open-sea experiments on floating offshore structures: Feasibility and application on a spar support for offshore wind turbines. Marine Structures, 2018, 61, 220-237.	3.8	20
50	Output-only identification of rigid body motions of floating structures: a case study. Procedia Engineering, 2017, 199, 930-935.	1.2	3
51	On the Comparison of the Dynamic Response of an Offshore Floating VAWT System When Adopting Two Different Mooring System Model of Dynamics: Quasi-Static vs Lumped Mass Approach. , 2017, , .		1
52	Can a Wind Turbine Learn to Operate Itself? Evaluation of the potential of a heuristic, data-driven self-optimizing control system for a 5MW offshore wind turbine. Energy Procedia, 2017, 137, 26-37.	1.8	5
53	Design of floating offshore wind turbines. , 2016, , 359-385.		12
54	Operational Modal Analysis of a Spar-Type Floating Platform Using Frequency Domain Decomposition Method. Energies, 2016, 9, 870.	3.1	15

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55	On the Relative Importance of Loads Acting on a Floating Vertical-Axis Wind Turbine System When Evaluating the Global System Response. , 2016, , .		4
56	Progress on the experimental set-up for the testing of a floating offshore wind turbine scaled model in a field site. Wind Engineering, 2016, 40, 455-467.	1.9	17
57	Overview of Floating Offshore Wind Technologies. Green Energy and Technology, 2016, , 87-132.	0.6	2
58	Open-sea 1:30 scale tests on a spar-type offshore wind turbine in parked conditions: Progress and future work. , 2016, , .		1
59	Parametric analysis for an algal oil production process. International Journal of Energy Production and Management, 2016, 1, 141-154.	3.7	2
60	Long-Term Global Performance Analysis of a Vertical-Axis Wind Turbine Supported on a Semi-Submersible Floating Platform. , 2015, , .		1
61	Longitudinal static stability requirements for wing in ground effect vehicle. International Journal of Naval Architecture and Ocean Engineering, 2015, 7, 259-269.	2.3	11
62	Offshore floating vertical axis wind turbines, dynamics modelling state of the art. Part III: Hydrodynamics and coupled modelling approaches. Renewable and Sustainable Energy Reviews, 2015, 46, 296-310.	16.4	35
63	A comparison between the dynamics of horizontal and vertical axis offshore floating wind turbines. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2015, 373, 20140076.	3.4	39
64	Frequency-domain characteristics of aerodynamic loads of offshore floating vertical axis wind turbines. Applied Energy, 2015, 155, 629-636.	10.1	37
65	3D URANS analysis of a vertical axis wind turbine in skewed flows. Journal of Wind Engineering and Industrial Aerodynamics, 2015, 147, 77-84.	3.9	82
66	Aerodynamically Alleviated Marine Vehicle (AAMV): Bridging the Maritime-to-Air Domain. , 2015, , .		1
67	FloVAWT: Further Progresses on the Development of a Coupled Model of Dynamics for Floating Offshore VAWTS. , 2014, , .		11
68	A Comparison of Two Coupled Model of Dynamics for Offshore Floating Vertical Axis Wind Turbines (VAWT). , 2014, , .		10
69	Stability requirements for floating offshore wind turbine (FOWT) during assembly and temporary phases: Overview and application. Ocean Engineering, 2014, 84, 164-175.	4.3	21
70	Offshore floating vertical axis wind turbines, dynamics modelling state of the art. Part II: Mooring line and structural dynamics. Renewable and Sustainable Energy Reviews, 2014, 39, 1226-1234.	16.4	50
71	Conceptual design of a floating support structure for an offshore vertical axis wind turbine: the lessons learnt. Ships and Offshore Structures, 2014, 9, 3-21.	1.9	31
72	A Comparison on the Dynamics of a Floating Vertical Axis Wind Turbine on Three Different Floating Support Structures. Energy Procedia, 2014, 53, 268-279.	1.8	32

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73	Offshore floating vertical axis wind turbines, dynamics modelling state of the art. part I: Aerodynamics. <i>Renewable and Sustainable Energy Reviews</i> , 2014, 39, 1214-1225.	16.4	146
74	Techno-economic modelling analysis of microalgae cultivation for biofuels and co-products. , 2014, , .		6
75	Use of a Wave Energy Converter as a Motion Suppression Device for Floating Wind Turbines. <i>Energy Procedia</i> , 2013, 35, 223-233.	1.8	41
76	FloVAWT: Progress on the Development of a Coupled Model of Dynamics for Floating Offshore Vertical Axis Wind Turbines. , 2013, , .		17
77	Application and extension of the TOPSIS method for the assessment of floating offshore wind turbine support structures. <i>Ships and Offshore Structures</i> , 2013, 8, 477-487.	1.9	32
78	Nova Project: Lessons Learnt During the Conceptual Phase of the Design of a Floating Support Structure for an Offshore Vertical Axis Wind Turbine. , 2012, , .		1
79	Preliminary design of a floating support structure for a 5MW offshore wind turbine. <i>Ocean Engineering</i> , 2012, 40, 15-26.	4.3	98
80	Offshore Floating Vertical Axis Wind Turbines: Advantages, Disadvantages and Dynamics Modeling State of the Art. , 2012, , .		11
81	The longitudinal static stability of an aerodynamically alleviated marine vehicle, a mathematical model. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2010, 466, 1055-1075.	2.1	8
82	A Comparison Between the Preliminary Design Studies of a Fixed and A Floating Support Structure For A 5 Mw Offshore Wind Turbine In The North Sea. , 2010, , .		12