Maurizio Collu

List of Publications by Year
in descending order

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82	1,536	331670	345221
papers	citations	21 h-index	36 g-index

84	84	84	994
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Offshore floating vertical axis wind turbines, dynamics modelling state of the art. part I: Aerodynamics. Renewable and Sustainable Energy Reviews, 2014, 39, 1214-1225.	16.4	146
2	Optimal design and performance analysis of a hybrid system combing a floating wind platform and wave energy converters. Applied Energy, 2020, 269, 114998.	10.1	105
3	Preliminary design of a floating support structure for a 5MW offshore wind turbine. Ocean Engineering, 2012, 40, 15-26.	4.3	98
4	Wind power prediction based on high-frequency SCADA data along with isolation forest and deep learning neural networks. International Journal of Electrical Power and Energy Systems, 2020, 118, 105835.	5.5	93
5	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
6	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
7	Offshore multi-purpose platforms for a Blue Growth: A technological, environmental and socio-economic review. Science of the Total Environment, 2020, 734, 138256.	8.0	49
8	Use of a Wave Energy Converter as a Motion Suppression Device for Floating Wind Turbines. Energy Procedia, 2013, 35, 223-233.	1.8	41
9	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
10	Frequency-domain characteristics of aerodynamic loads of offshore floating vertical axis wind turbines. Applied Energy, 2015, 155, 629-636.	10.1	37
11	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
12	Application and extension of the TOPSIS method for the assessment of floating offshore wind turbine support structures. Ships and Offshore Structures, 2013, 8, 477-487.	1.9	32
13	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
14	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
15	Wave energy extraction and hydroelastic response reduction of modular floating breakwaters as array wave energy converters integrated into a very large floating structure. Applied Energy, 2022, 306, 117953.	10.1	31
16	Critical review of floating support structures for offshore wind farm deployment. Journal of Physics: Conference Series, 2018, 1104, 012007.	0.4	30
17	Analysis of the coupled dynamic response of an offshore floating multi-purpose platform for the Blue Economy. Ocean Engineering, 2020, 217, 107943.	4.3	28
18	Operation and maintenance for floating wind turbines: A review. Renewable and Sustainable Energy Reviews, 2022, 163, 112499.	16.4	28

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19	Energy conversion and hydrodynamic analysis of multi-degree-of-freedom wave energy converters integrated into a semi-submersible platform. Energy Conversion and Management, 2022, 252, 115075.	9.2	27
20	Hydrodynamic characteristics of a hybrid oscillating water column-oscillating buoy wave energy converter integrated into a Ï€-type floating breakwater. Renewable and Sustainable Energy Reviews, 2022, 161, 112299.	16.4	25
21	Harmonized and systematic assessment of microalgae energy potential for biodiesel production. Renewable and Sustainable Energy Reviews, 2019, 101, 614-624.	16.4	22
22	A review of operations and maintenance modelling with considerations for novel wind turbine concepts. Renewable and Sustainable Energy Reviews, 2022, 165, 112581.	16.4	22
23	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
24	A methodology to develop reduced-order models to support the operation and maintenance of offshore wind turbines. Applied Energy, 2020, 259, 114228.	10.1	21
25	Design optimization of the OC3 phase IV floating spar-buoy, based on global limit states. Ocean Engineering, 2020, 202, 107186.	4.3	21
26	Scaling strategies for multi-purpose floating structures physical modeling: state of art and new perspectives. Applied Ocean Research, 2021, 108, 102487.	4.1	21
27	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
28	A Review of Predictive and Prescriptive Offshore Wind Farm Operation and Maintenance. Energies, 2022, 15, 504.	3.1	19
29	FloVAWT: Progress on the Development of a Coupled Model of Dynamics for Floating Offshore Vertical Axis Wind Turbines. , 2013, , .		17
30	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
31	Motion Response and Energy Conversion Performance of a Heaving Point Absorber Wave Energy Converter. Frontiers in Energy Research, 2020, 8, .	2.3	17
32	Development and Verification of an Aero-Hydro-Servo-Elastic Coupled Model of Dynamics for FOWT, Based on the MoWiT Library. Energies, 2020, 13, 1974.	3.1	17
33	Operational Modal Analysis of a Spar-Type Floating Platform Using Frequency Domain Decomposition Method. Energies, 2016, 9, 870.	3.1	15
34	Development of a Framework for Wind Turbine Design and Optimization. Modelling, 2021, 2, 105-128.	1.4	14
35	Design of floating offshore windÂturbines. , 2016, , 359-385.		12
36	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

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37	Optimisation-based system designs for deep offshore wind farms including power to gas technologies. Applied Energy, 2022, 310, 118540.	10.1	12
38	FloVAWT: Further Progresses on the Development of a Coupled Model of Dynamics for Floating Offshore VAWTS. , 2014, , .		11
39	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
40	Offshore Floating Vertical Axis Wind Turbines: Advantages, Disadvantages and Dynamics Modeling State of the Art. , 2012, , .		11
41	A Comparison of Two Coupled Model of Dynamics for Offshore Floating Vertical Axis Wind Turbines (VAWT). , 2014, , .		10
42	Modeling Small Scale Impacts of Multi-Purpose Platforms: An Ecosystem Approach. Frontiers in Marine Science, 2021, 8, .	2.5	10
43	Reducing Tower Fatigue through Blade Back Twist and Active Pitch-to-Stall Control Strategy for a Semi-Submersible Floating Offshore Wind Turbine. Energies, 2019, 12, 1897.	3.1	9
44	Analysis of tripod supported offshore wind turbines under conditions of marine growth. Ocean Engineering, 2021, 220, 108441.	4.3	9
45	The longitudinal static stability of an aerodynamically alleviated marine vehicle, a mathematical model. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2010, 466, 1055-1075.	2.1	8
46	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
47	A fully integrated optimization framework for designing a complex geometry offshore wind turbine spar-type floating support structure. Wind Energy Science, 2022, 7, 259-281.	3.3	8
48	Investigation on PTO control of a Combined Axisymmetric Buoy-WEC(CAB-WEC). Ocean Engineering, 2019, 188, 106245.	4.3	7
49	Integrating Wind Turbines and Fish Farms: An Evaluation of Potential Risks to Marine and Coastal Bird Species. Journal of Marine Science and Engineering, 2020, 8, 414.	2.6	7
50	Multidisciplinary design analysis and optimisation frameworks for floating offshore wind turbines: State of the art. Ocean Engineering, 2022, 251, 111002.	4.3	7
51	Techno-economic modelling analysis of microalgae cultivation for biofuels and co-products. , 2014, , .		6
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	New Engineering Approach for the Development and Demonstration of a Multi-Purpose Platform for the Blue Growth Economy. , 2019, , .		5
54	Frequency Domain Analysis of a Hybrid Aquaculture-Wind Turbine Offshore Floating System. , 2019, , .		5

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55	Digital twins of the mooring line tension for floating offshore wind turbines to improve monitoring, lifespan, and safety. Journal of Ocean Engineering and Marine Energy, 2022, 8, 1-16.	1.7	5
56	On the Relative Importance of Loads Acting on a Floating Vertical-Axis Wind Turbine System When Evaluating the Global System Response. , 2016, , .		4
57	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
58	Performance Analysis of a Sea Javelin Wave Energy Converter in Irregular Wave. Journal of Coastal Research, 2019, 83, 932.	0.3	4
59	Analysis of the Coupled Dynamics of an Offshore Floating Multi-Purpose Platform: Part A â€" Rigid Body Analysis. , 2019, , .		4
60	Analysis of the Coupled Dynamics of an Offshore Floating Multi-Purpose Platform: Part B â€" Hydro-Elastic Analysis With Flexible Support Platform. , 2019, , .		4
61	Larger MW-Class Floater Designs Without Upscaling?: A Direct Optimization Approach. , 2019, , .		4
62	Output-only identification of rigid body motions of floating structures: a case study. Procedia Engineering, 2017, 199, 930-935.	1.2	3
63	Analysis of the Effect of a Series of Back Twist Blade Configurations for an Active Pitch-To-Stall Floating Offshore Wind Turbine. Journal of Offshore Mechanics and Arctic Engineering, 2020, 142, .	1.2	3
64	Overview of Floating Offshore Wind Technologies. Green Energy and Technology, 2016, , 87-132.	0.6	2
65	Progress on the Development of a Holistic Coupled Model of Dynamics for Offshore Wind Farms: Phase I â€" Aero-Hydro-Servo-Elastic Model, With Drive Train Model, for a Single Wind Turbine. , 2018, , .		2
66	Parametric analysis for an algal oil production process. International Journal of Energy Production and Management, 2016, 1, 141-154.	3.7	2
67	Operations and Maintenance for Multipurpose Offshore Platforms using Statistical Weather Window Analysis. , 2020, , .		2
68	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
69	Long-Term Global Performance Analysis of a Vertical-Axis Wind Turbine Supported on a Semi-Submersible Floating Platform. , 2015, , .		1
70	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
71	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
72	Open-sea 1:30 scale tests on a spar-type offshore wind turbine in parked conditions: Progress and future work. , 2016, , .		1

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73	Aerodynamically Alleviated Marine Vehicle (AAMV): Bridging the Maritime-to-Air Domain. , 2015, , .		1
74	Progress on the Development of a Holistic Coupled Model of Dynamics for Offshore Wind Farms: Phase II â€" Study on a Data-Driven Based Reduced-Order Model for a Single Wind Turbine. , 2019, , .		1
75	Influence of the Mission Profile on The Lifetime Modelling of the Wind Turbine Power Converter â€" A Review. , 2020, , .		1
76	Floating Spar-Type Offshore Wind Turbine Hydrodynamic Response Characterisation: a Computational Cost Aware Approach. , 2020, , .		1
77	Model-Free Semi-Active Structural Control of Floating Wind Turbines. , 2020, , .		1
78	Development of a multi rotor floating offshore system based on vertical axis wind turbines. Journal of Physics: Conference Series, 2022, 2257, 012002.	0.4	1
79	Parametrisation Scheme for Multidisciplinary Design Analysis and Optimisation of a Floating Offshore Wind Turbine Substructure â€" OC3 5MW Case Study. Journal of Physics: Conference Series, 2022, 2265, 042009.	0.4	1
80	A Flexible, Multi-fidelity Levelised Cost of Energy Model for Floating Offshore Wind Turbines Multidisciplinary Design, Analysis and Optimisation Approaches. Journal of Physics: Conference Series, 2022, 2265, 042029.	0.4	1
81	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. Journal of Offshore Mechanics and Arctic Engineering, 2021, 143, .	1.2	0
82	Failure Modes and Effects Analysis of an Aquaculture Feeding Barge Equipped with Wind Turbines. , 2020, , .		0