

# Eduard Muljadi

## List of Publications by Year in descending order

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120  
papers

3,223  
citations

236925

25  
h-index

189892

50  
g-index

122  
all docs

122  
docs citations

122  
times ranked

2470  
citing authors

#	ARTICLE	IF	CITATIONS
1	Power systems with high renewable energy sources: A review of inertia and frequency control strategies over time. Renewable and Sustainable Energy Reviews, 2019, 115, 109369.	16.4	278
2	Effect of Variable Speed Wind Turbine Generator on Stability of a Weak Grid. IEEE Transactions on Energy Conversion, 2007, 22, 29-36.	5.2	192
3	Releasable Kinetic Energy-Based Inertial Control of a DFIG Wind Power Plant. IEEE Transactions on Sustainable Energy, 2016, 7, 279-288.	8.8	191
4	Rapid Active Power Control of Photovoltaic Systems for Grid Frequency Support. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2017, 5, 1154-1163.	5.4	177
5	A Short-Term and High-Resolution Distribution System Load Forecasting Approach Using Support Vector Regression With Hybrid Parameters Optimization. IEEE Transactions on Smart Grid, 2018, 9, 3341-3350.	9.0	176
6	Temporary Frequency Support of a DFIG for High Wind Power Penetration. IEEE Transactions on Power Systems, 2018, 33, 3428-3437.	6.5	130
7	Dynamic Droop-Based Inertial Control of a Doubly-Fed Induction Generator. IEEE Transactions on Sustainable Energy, 2016, 7, 924-933.	8.8	117
8	Frequency Control Support of a Doubly-Fed Induction Generator Based on the Torque Limit. IEEE Transactions on Power Systems, 2016, 31, 4575-4583.	6.5	116
9	Short circuit current contribution for different wind turbine generator types. , 2010, , .		81
10	Active Torque Control for Gearbox Load Reduction in a Variable-Speed Wind Turbine. IEEE Transactions on Industry Applications, 2012, 48, 2424-2432.	4.9	74
11	Gearbox and Drivetrain Models to Study Dynamic Effects of Modern Wind Turbines. IEEE Transactions on Industry Applications, 2014, 50, 3777-3786.	4.9	66
12	Disturbance-Adaptive Short-Term Frequency Support of a DFIG Associated With the Variable Gain Based on the ROCOF and Rotor Speed. IEEE Transactions on Power Systems, 2017, 32, 1873-1881.	6.5	66
13	Adaptive $V$ Scheme for the Voltage Control of a DFIG-Based Wind Power Plant. IEEE Transactions on Power Electronics, 2016, 31, 3586-3599.	7.9	60
14	Modeling and Control to Mitigate Resonant Load in Variable-Speed Wind Turbine Drivetrain. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2013, 1, 277-286.	5.4	53
15	Wind power plant prediction by using neural networks. , 2012, , .		50
16	Lithium-Ion Capacitor Energy Storage Integrated With Variable Speed Wind Turbines for Power Smoothing. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2013, 1, 287-295.	5.4	49
17	Stable Adaptive Inertial Control of a Doubly-Fed Induction Generator. IEEE Transactions on Smart Grid, 2016, 7, 2971-2979.	9.0	49
18	Dynamic Capabilities of an Energy Storage-Embedded DFIG System. IEEE Transactions on Industry Applications, 2019, 55, 4124-4134.	4.9	45

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19	Real-time photovoltaic plant maximum power point estimation for use in grid frequency stabilization. , 2015, , .		44
20	Different Factors Affecting Short Circuit Behavior of a Wind Power Plant. IEEE Transactions on Industry Applications, 2013, 49, 284-292.	4.9	43
21	Spatial-Temporal Synchrophasor Data Characterization and Analytics in Smart Grid Fault Detection, Identification, and Impact Causal Analysis. IEEE Transactions on Smart Grid, 2016, 7, 2525-2536.	9.0	43
22	Synchrophasor-Based Auxiliary Controller to Enhance the Voltage Stability of a Distribution System With High Renewable Energy Penetration. IEEE Transactions on Smart Grid, 2015, 6, 2107-2115.	9.0	41
23	Characteristic Study of Vector-controlled Direct-driven Permanent Magnet Synchronous Generator in Wind Power Generation. Electric Power Components and Systems, 2009, 37, 1162-1179.	1.8	34
24	Cogging Torque Minimization in Transverse Flux Machines. IEEE Transactions on Industry Applications, 2019, 55, 385-397.	4.9	33
25	Design Considerations of a Transverse Flux Machine for Direct-Drive Wind Turbine Applications. IEEE Transactions on Industry Applications, 2018, 54, 3604-3615.	4.9	32
26	Energy Storage and Reactive Power Compensator in a Large Wind Farm. , 2004, , .		31
27	Improved inertial control for permanent magnet synchronous generator wind turbine generators. IET Renewable Power Generation, 2016, 10, 1366-1373.	3.1	30
28	Synchronous Condenser Allocation for Improving System Short Circuit Ratio. , 2018, , .		29
29	Capabilityâ€œordinated frequency control scheme of a virtual power plant with renewable energy sources. IET Generation, Transmission and Distribution, 2019, 13, 3642-3648.	2.5	29
30	Implementations and Evaluations of Wind Turbine Inertial Controls With FAST and Digital Real-Time Simulations. IEEE Transactions on Energy Conversion, 2018, 33, 1805-1814.	5.2	28
31	System Strength and Inertia Constrained Optimal Generator Dispatch Under High Renewable Penetration. IEEE Transactions on Sustainable Energy, 2020, 11, 2392-2406.	8.8	27
32	Design of a Modular E-Core Flux Concentrating Transverse Flux Machine. IEEE Transactions on Industry Applications, 2018, 54, 2115-2128.	4.9	26
33	Inertia Estimation of Wind Power Plants Based on the Swing Equation and Phasor Measurement Units. Applied Sciences (Switzerland), 2018, 8, 2413.	2.5	26
34	Coordinated Control of Wind Turbine and Energy Storage System for Reducing Wind Power Fluctuation. Energies, 2018, 11, 52.	3.1	26
35	Flexible IQâ€œV Scheme of a DFIG for Rapid Voltage Regulation of a Wind Power Plant. IEEE Transactions on Industrial Electronics, 2017, 64, 8832-8842.	7.9	25
36	Doubly Fed Induction Generator in an Offshore Wind Power Plant Operated at Rated V/Hz. IEEE Transactions on Industry Applications, 2013, 49, 2197-2205.	4.9	24

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37	PV generation enhancement with a virtual inertia emulator to provide inertial response to the grid. , 2014, , .		24
38	Supercapacitor to Provide Ancillary Services With Control Coordination. IEEE Transactions on Industry Applications, 2019, 55, 5119-5127.	4.9	24
39	Practical Challenges of Inverse and Definite-Time Overcurrent Protection Coordination in Modern Industrial and Commercial Power Distribution System. IEEE Transactions on Industry Applications, 2021, 57, 187-197.	4.9	24
40	Modeling and control system design for an integrated solar generation and energy storage system with a ride-through capability. , 2012, , .		23
41	Analytical modeling of a novel transverse flux machine for direct drive wind turbine applications. , 2015, , .		22
42	Gearbox and drivetrain models to study dynamic effects of modern wind turbines. , 2013, , .		21
43	Multi-Timescale Three-Phase Unbalanced Distribution System Operation With Variable Renewable Generations. IEEE Transactions on Smart Grid, 2019, 10, 4497-4507.	9.0	21
44	Mechanical stress reduction in variable speed wind turbine drivetrains. , 2011, , .		20
45	Developing of Quaternary Pumped Storage Hydropower for Dynamic Studies. IEEE Transactions on Sustainable Energy, 2020, 11, 2870-2878.	8.8	19
46	Review of Marine Hydrokinetic Power Generation and Power Plant. Electric Power Components and Systems, 2015, 43, 1422-1433.	1.8	18
47	The Wind Farm Aggregation Impact on Power Quality. Industrial Electronics Society (IECON ), Annual Conference of IEEE, 2006, , .	0.0	17
48	Big Data-Based Approach to Detect, Locate, and Enhance the Stability of an Unplanned Microgrid Islanding. Journal of Energy Engineering - ASCE, 2017, 143, .	1.9	17
49	Zonal Inertia Constrained Generator Dispatch Considering Load Frequency Relief. IEEE Transactions on Power Systems, 2020, 35, 3065-3077.	6.5	17
50	Evaluation of different inertial control methods for variable-speed wind turbines simulated by fatigue, aerodynamic, structures and turbulence (FAST). IET Renewable Power Generation, 2017, 11, 1534-1544.	3.1	16
51	Frequency Stability Support of a DFIG to Improve the Settling Frequency. IEEE Access, 2020, 8, 22473-22482.	4.2	16
52	Knowledge discovery for smart grid operation, control, and situation awareness " a big data visualization platform. , 2016, , .		15
53	A comprehensive review of permanent magnet transverse flux machines for direct drive applications. , 2017, , .		15
54	Comparison of Active and Reactive Power Oscillation Damping With PV Plants. IEEE Transactions on Industry Applications, 2021, 57, 2178-2186.	4.9	15

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55	Wind power plant representation in large-scale power flow simulations in WECC. , 2008, , .		14
56	Variable-speed wind power plant operating with reserve power capability. , 2013, , .		13
57	Impedance-Based Stability Analysis in Grid Interconnection Impact Study Owing to the Increased Adoption of Converter-Interfaced Generators. Energies, 2017, 10, 1355.	3.1	13
58	Frequency control studies: A review of power system, conventional and renewable generation unit modeling. Electric Power Systems Research, 2022, 211, 108191.	3.6	13
59	A condition monitoring system for wind turbine generator temperature by applying multiple linear regression model. , 2013, , .		12
60	Designing and Integrating Wind Power Laboratory Experiments in Power and Energy Systems Courses. IEEE Transactions on Power Systems, 2014, 29, 1944-1951.	6.5	12
61	Design of a modular E-Core flux concentrating axial flux machine. , 2015, , .		12
62	Modelling and simulation of ternary pumped storage hydropower for power system studies. IET Generation, Transmission and Distribution, 2019, 13, 4382-4390.	2.5	12
63	Doubly Fed Induction Generator Maximum Wind Power Extraction Study Through Integrated Steady-state and Close-loop Control Evaluation. Electric Power Components and Systems, 2010, 38, 767-785.	1.8	11
64	Guest Editorial Optimal Design of Electric Machines. IEEE Transactions on Energy Conversion, 2015, 30, 1143-1143.	5.2	10
65	Analytical model-based design optimization of a transverse flux machine. , 2016, , .		10
66	Mechanical Performance of Transverse Flux Machines. IEEE Transactions on Industry Applications, 2019, 55, 3716-3724.	4.9	10
67	A Novel Framework for Optimizing Ramping Capability of Hybrid Energy Storage Systems. IEEE Transactions on Smart Grid, 2021, 12, 1651-1662.	9.0	10
68	A whirl of activity. IEEE Power and Energy Magazine, 2009, 7, 26-35.	1.6	9
69	Cogging torque minimization in transverse flux machines. , 2016, , .		9
70	Type-2 Wind Turbine with Additional Sub-synchronous Resonance Damping. , 2013, , .		8
71	Design considerations of a transverse flux machine for direct-drive wind turbine applications. , 2016, , .		8
72	Inertial response of wind power plants: A comparison of frequency-based inertial control and stepwise inertial control. , 2016, , .		8

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73	Power-Smoothing Scheme of a DFIG Using the Adaptive Gain Depending on the Rotor Speed and Frequency Deviation. <i>Energies</i> , 2017, 10, 555.	3.1	8
74	Investigations into Balancing Peak-to-Average Power Ratio and Mean Power Extraction for a Two-Body Point-Absorber Wave Energy Converter. <i>Energies</i> , 2021, 14, 3489.	3.1	8
75	Synchrophasor based auxiliary controller to enhance power system transient voltage stability in a high penetration renewable energy scenario. , 2014, , .		7
76	A Comprehensive Review of Permanent Magnet Transverse Flux Machines: Use in Direct-Drive Applications. <i>IEEE Industry Applications Magazine</i> , 2020, 26, 87-98.	0.4	7
77	Self Excitation and Harmonics in Wind Power Generation. , 2005, , .		6
78	Probability-based method for power capacity specification of wind energy storage systems. , 2011, , .		6
79	Short-Term Frequency Response of a DFIG-Based Wind Turbine Generator for Rapid Frequency Stabilization. <i>Energies</i> , 2017, 10, 1863.	3.1	6
80	Utilization of Supercapacitor to Extend the Critical Clearing Time in a Power System. <i>IEEE Open Journal of Industry Applications</i> , 2020, 1, 248-257.	6.5	6
81	Modelling and control coordination scheme of a wind-to-hydrogen set for future renewable-based power systems. <i>IET Renewable Power Generation</i> , 2020, 14, 3317-3326.	3.1	6
82	Guest editorial - Electric machines in renewable energy applications. <i>IEEE Transactions on Energy Conversion</i> , 2015, 30, 1609-1610.	5.2	5
83	Coordinated control of wind turbine and energy storage system for reducing wind power fluctuation. , 2017, , .		5
84	Protection Coordination Challenges for Microgrid Distribution Network with High Penetration Inverter-Based Resources. , 2020, , .		5
85	The dynamic performance and effect of hybrid renewable power system with diesel/wind/PV/battery. , 2009, , .		4
86	Power capacity specification for energy storage in wind application using probability- based method. , 2011, , .		4
87	Damping control for Permanent Magnet Synchronous Generators and its application in a multi-turbine system. , 2014, , .		4
88	A Framework to Analyze the Stochastic Harmonics and Resonance of Wind Energy Grid Interconnection. <i>Energies</i> , 2016, 9, 700.	3.1	4
89	A comparative study of the application of FACTS devices in wind power plants of the southeast area of the Mexican electric system. , 2016, , .		4
90	Analytical modeling of a double-sided flux concentrating E-Core Transverse Flux Machine with pole windings. , 2017, , .		4

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91	Mechanical and thermal performance of transverse flux machines. , 2017, , .		4
92	Load forecasting based distribution system network reconfiguration â€” A distributed data-driven approach. , 2017, , .		3
93	Power quality improvement utilizing photovoltaic generation connected to a weak grid. , 2017, , .		3
94	Modern Concerns and Challenges of Over-Current Protection Coordination in Distribution Systems. , 2020, , .		3
95	A new control strategy for stand-alone fuel cell-battery hybrid power supply system. , 2009, , .		2
96	Novel approach for calculation and analysis of eigenvalues and eigenvectors in microgrids. , 2014, , .		2
97	Economic dispatch for microgrid containing electric vehicles via probabilistic modelling. , 2015, , .		2
98	Hierarchical control scheme for improving transient voltage recovery of a DFIG-based WPP. , 2015, , .		2
99	Permanent magnet synchronous condenser for wind power plant grid connection support. , 2015, , .		2
100	Chance-constrained day-ahead hourly scheduling in distribution system operation. , 2017, , .		2
101	A Graphical Probabilistic Representation for the Impact Assessment of Wind Power Plants in Power Systems. Journal of Electrical Engineering and Technology, 2020, 15, 2033-2043.	2.0	2
102	A Review of Virtual Inertia Techniques for Renewable Energy-Based Generators. , 0, , .		2
103	Closed-loop fast primary frequency response of type-3 wind power plants in low inertia grids. IET Renewable Power Generation, 2021, 15, 2931-2943.	3.1	2
104	RPM-SIM simulator - A comparison of simulated versus recorded data. , 2001, , .		1
105	Renewable energy simulation. , 2008, , .		1
106	Model Validation of Photovoltaic Systems. , 2013, , .		1
107	Winding schemes for wide constant power range of double stator transverse flux machine. , 2015, , .		1
108	Permanent magnet synchronous condenser with solid state excitation. , 2015, , .		1

#	ARTICLE	IF	CITATIONS
109	Sizing SiC storage inverters for fast grid frequency support. , 2015, , .		1
110	Security-oriented and load-balancing wireless data routing game in the integration of advanced metering infrastructure network in smart grid. , 2016, , .		1
111	Flywheel Energy Storage - Dynamic Modeling. , 2017, , .		1
112	Interarea-Oscillation Damping with Dual Power Oscillation Damping Controller of a Utility-Scale Wind Power Plant. , 2021, , .		1
113	Possibility of Power Electronics-Based Control Analysis of a Self-Excited Induction Generator (SEIG) for Wind Turbine and Electrolyzer Application. Electronics (Switzerland), 2021, 10, 2743.	3.1	1
114	Power Quality of Renewable Energy Systems Can Be Evaluated Using Simulation Data. , 2007, , .		0
115	AC/DC/AC Converter Modulation Strategy With Natural Zero sequence Rejection Using Only One Six-Switch Inverter Module. , 2007, , .		0
116	Centralized and modular architectures for photovoltaic panels with improved efficiency. , 2012, , .		0
117	Simulation tool to assess mechanical and electrical stresses on wind turbine generators. , 2013, , .		0
118	Frequency Support Enhancement of a Permanent Magnet-Based Adjustable-Speed Pumped Hydropower Plant. , 2019, , .		0
119	Design of BLDC Motor Diagnostic Device Based on Surge Test for Phase to Ground Fault. , 2020, , .		0
120	Characterizing wind turbine system response to lightning activity - Preliminary results. , 1998, , .		0