

# 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	Frequency control studies: A review of power system, conventional and renewable generation unit modeling. <i>Electric Power Systems Research</i> , 2022, 211, 108191.	3.6	13
2	Practical Challenges of Inverse and Definite-Time Overcurrent Protection Coordination in Modern Industrial and Commercial Power Distribution System. <i>IEEE Transactions on Industry Applications</i> , 2021, 57, 187-197.	4.9	24
3	A Novel Framework for Optimizing Ramping Capability of Hybrid Energy Storage Systems. <i>IEEE Transactions on Smart Grid</i> , 2021, 12, 1651-1662.	9.0	10
4	Closed-loop fast primary frequency response of type-3 wind power plants in low inertia grids. <i>IET Renewable Power Generation</i> , 2021, 15, 2931-2943.	3.1	2
5	Comparison of Active and Reactive Power Oscillation Damping With PV Plants. <i>IEEE Transactions on Industry Applications</i> , 2021, 57, 2178-2186.	4.9	15
6	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
7	Interarea-Oscillation Damping with Dual Power Oscillation Damping Controller of a Utility-Scale Wind Power Plant. , 2021, , .		1
8	Possibility of Power Electronics-Based Control Analysis of a Self-Excited Induction Generator (SEIG) for Wind Turbine and Electrolyzer Application. <i>Electronics (Switzerland)</i> , 2021, 10, 2743.	3.1	1
9	System Strength and Inertia Constrained Optimal Generator Dispatch Under High Renewable Penetration. <i>IEEE Transactions on Sustainable Energy</i> , 2020, 11, 2392-2406.	8.8	27
10	Zonal Inertia Constrained Generator Dispatch Considering Load Frequency Relief. <i>IEEE Transactions on Power Systems</i> , 2020, 35, 3065-3077.	6.5	17
11	A Graphical Probabilistic Representation for the Impact Assessment of Wind Power Plants in Power Systems. <i>Journal of Electrical Engineering and Technology</i> , 2020, 15, 2033-2043.	2.0	2
12	Design of BLDC Motor Diagnostic Device Based on Surge Test for Phase to Ground Fault. , 2020, , .		0
13	Modern Concerns and Challenges of Over-Current Protection Coordination in Distribution Systems. , 2020, , .		3
14	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
15	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
16	Protection Coordination Challenges for Microgrid Distribution Network with High Penetration Inverter-Based Resources. , 2020, , .		5
17	Developing of Quaternary Pumped Storage Hydropower for Dynamic Studies. <i>IEEE Transactions on Sustainable Energy</i> , 2020, 11, 2870-2878.	8.8	19
18	Frequency Stability Support of a DFIG to Improve the Settling Frequency. <i>IEEE Access</i> , 2020, 8, 22473-22482.	4.2	16

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19	Modelling and control coordination scheme of a wind&hydrogen set for future renewable&based power systems. IET Renewable Power Generation, 2020, 14, 3317-3326.	3.1	6
20	Multi-Timescale Three-Phase Unbalanced Distribution System Operation With Variable Renewable Generations. IEEE Transactions on Smart Grid, 2019, 10, 4497-4507.	9.0	21
21	Supercapacitor to Provide Ancillary Services With Control Coordination. IEEE Transactions on Industry Applications, 2019, 55, 5119-5127.	4.9	24
22	Mechanical Performance of Transverse Flux Machines. IEEE Transactions on Industry Applications, 2019, 55, 3716-3724.	4.9	10
23	Capability&coordinated frequency control scheme of a virtual power plant with renewable energy sources. IET Generation, Transmission and Distribution, 2019, 13, 3642-3648.	2.5	29
24	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
25	Dynamic Capabilities of an Energy Storage-Embedded DFIG System. IEEE Transactions on Industry Applications, 2019, 55, 4124-4134.	4.9	45
26	Modelling and simulation of ternary pumped storage hydropower for power system studies. IET Generation, Transmission and Distribution, 2019, 13, 4382-4390.	2.5	12
27	Frequency Support Enhancement of a Permanent Magnet-Based Adjustable-Speed Pumped Hydropower Plant. , 2019, , .		0
28	Cogging Torque Minimization in Transverse Flux Machines. IEEE Transactions on Industry Applications, 2019, 55, 385-397.	4.9	33
29	Temporary Frequency Support of a DFIG for High Wind Power Penetration. IEEE Transactions on Power Systems, 2018, 33, 3428-3437.	6.5	130
30	Design of a Modular E-Core Flux Concentrating Transverse Flux Machine. IEEE Transactions on Industry Applications, 2018, 54, 2115-2128.	4.9	26
31	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
32	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
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	Synchronous Condenser Allocation for Improving System Short Circuit Ratio. , 2018, , .		29
35	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
36	Coordinated Control of Wind Turbine and Energy Storage System for Reducing Wind Power Fluctuation. Energies, 2018, 11, 52.	3.1	26

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37	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
38	Flywheel Energy Storage - Dynamic Modeling. , 2017, , .		1
39	Flexible IQâ€V 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
40	Analytical modeling of a double-sided flux concentrating E-Core Transverse Flux Machine with pole windings. , 2017, , .		4
41	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
42	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
43	Mechanical and thermal performance of transverse flux machines. , 2017, , .		4
44	A comprehensive review of permanent magnet transverse flux machines for direct drive applications. , 2017, , .		15
45	Chance-constrained day-ahead hourly scheduling in distribution system operation. , 2017, , .		2
46	Evaluation of different inertial control methods for variableâ€speed wind turbines simulated by fatigue, aerodynamic, structures and turbulence (FAST). IET Renewable Power Generation, 2017, 11, 1534-1544.	3.1	16
47	Load forecasting based distribution system network reconfiguration â€” A distributed data-driven approach. , 2017, , .		3
48	Coordinated control of wind turbine and energy storage system for reducing wind power fluctuation. , 2017, , .		5
49	Power quality improvement utilizing photovoltaic generation connected to a weak grid. , 2017, , .		3
50	Short-Term Frequency Response of a DFIG-Based Wind Turbine Generator for Rapid Frequency Stabilization. Energies, 2017, 10, 1863.	3.1	6
51	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
52	Power-Smoothing Scheme of a DFIG Using the Adaptive Gain Depending on the Rotor Speed and Frequency Deviation. Energies, 2017, 10, 555.	3.1	8
53	A Framework to Analyze the Stochastic Harmonics and Resonance of Wind Energy Grid Interconnection. Energies, 2016, 9, 700.	3.1	4
54	Security-oriented and load-balancing wireless data routing game in the integration of advanced metering infrastructure network in smart grid. , 2016, , .		1

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55	Cogging torque minimization in transverse flux machines. , 2016, , .		9
56	Design considerations of a transverse flux machine for direct-drive wind turbine applications. , 2016, , .		8
57	Analytical model-based design optimization of a transverse flux machine. , 2016, , .		10
58	A comparative study of the application of FACTS devices in wind power plants of the southeast area of the Mexican electric system. , 2016, , .		4
59	Inertial response of wind power plants: A comparison of frequency-based inertial control and stepwise inertial control. , 2016, , .		8
60	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
61	Improved inertial control for permanent magnet synchronous generator wind turbine generators. IET Renewable Power Generation, 2016, 10, 1366-1373.	3.1	30
62	Knowledge discovery for smart grid operation, control, and situation awareness " a big data visualization platform. , 2016, , .		15
63	Stable Adaptive Inertial Control of a Doubly-Fed Induction Generator. IEEE Transactions on Smart Grid, 2016, 7, 2971-2979.	9.0	49
64	Releasable Kinetic Energy-Based Inertial Control of a DFIG Wind Power Plant. IEEE Transactions on Sustainable Energy, 2016, 7, 279-288.	8.8	191
65	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
66	Dynamic Droop-Based Inertial Control of a Doubly-Fed Induction Generator. IEEE Transactions on Sustainable Energy, 2016, 7, 924-933.	8.8	117
67	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
68	Winding schemes for wide constant power range of double stator transverse flux machine. , 2015, , .		1
69	Analytical modeling of a novel transverse flux machine for direct drive wind turbine applications. , 2015, , .		22
70	Economic dispatch for microgrid containing electric vehicles via probabilistic modelling. , 2015, , .		2
71	Hierarchical control scheme for improving transient voltage recovery of a DFIG-based WPP. , 2015, , .		2
72	Guest editorial - Electric machines in renewable energy applications. IEEE Transactions on Energy Conversion, 2015, 30, 1609-1610.	5.2	5

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73	Permanent magnet synchronous condenser with solid state excitation. , 2015, , .		1
74	Sizing SiC storage inverters for fast grid frequency support. , 2015, , .		1
75	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
76	Permanent magnet synchronous condenser for wind power plant grid connection support. , 2015, , .		2
77	Design of a modular E-Core flux concentrating axial flux machine. , 2015, , .		12
78	Guest Editorial Optimal Design of Electric Machines. IEEE Transactions on Energy Conversion, 2015, 30, 1143-1143.	5.2	10
79	Review of Marine Hydrokinetic Power Generation and Power Plant. Electric Power Components and Systems, 2015, 43, 1422-1433.	1.8	18
80	Real-time photovoltaic plant maximum power point estimation for use in grid frequency stabilization. , 2015, , .		44
81	Damping control for Permanent Magnet Synchronous Generators and its application in a multi-turbine system. , 2014, , .		4
82	Synchrophasor based auxiliary controller to enhance power system transient voltage stability in a high penetration renewable energy scenario. , 2014, , .		7
83	PV generation enhancement with a virtual inertia emulator to provide inertial response to the grid. , 2014, , .		24
84	Novel approach for calculation and analysis of eigenvalues and eigenvectors in microgrids. , 2014, , .		2
85	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
86	Gearbox and Drivetrain Models to Study Dynamic Effects of Modern Wind Turbines. IEEE Transactions on Industry Applications, 2014, 50, 3777-3786.	4.9	66
87	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
88	Variable-speed wind power plant operating with reserve power capability. , 2013, , .		13
89	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
90	Model Validation of Photovoltaic Systems. , 2013, , .		1

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91	Different Factors Affecting Short Circuit Behavior of a Wind Power Plant. IEEE Transactions on Industry Applications, 2013, 49, 284-292.	4.9	43
92	Gearbox and drivetrain models to study dynamic effects of modern wind turbines. , 2013, , .		21
93	Simulation tool to assess mechanical and electrical stresses on wind turbine generators. , 2013, , .		0
94	Type-2 Wind Turbine with Additional Sub-synchronous Resonance Damping. , 2013, , .		8
95	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
96	A condition monitoring system for wind turbine generator temperature by applying multiple linear regression model. , 2013, , .		12
97	Wind power plant prediction by using neural networks. , 2012, , .		50
98	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
99	Centralized and modular architectures for photovoltaic panels with improved efficiency. , 2012, , .		0
100	Modeling and control system design for an integrated solar generation and energy storage system with a ride-through capability. , 2012, , .		23
101	Mechanical stress reduction in variable speed wind turbine drivetrains. , 2011, , .		20
102	Probability-based method for power capacity specification of wind energy storage systems. , 2011, , .		6
103	Power capacity specification for energy storage in wind application using probability- based method. , 2011, , .		4
104	Short circuit current contribution for different wind turbine generator types. , 2010, , .		81
105	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
106	A new control strategy for stand-alone fuel cell-battery hybrid power supply system. , 2009, , .		2
107	The dynamic performance and effect of hybrid renewable power system with diesel/wind/PV/battery. , 2009, , .		4
108	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

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109	A whirl of activity. IEEE Power and Energy Magazine, 2009, 7, 26-35.	1.6	9
110	Renewable energy simulation. , 2008, , .		1
111	Wind power plant representation in large-scale power flow simulations in WECC. , 2008, , .		14
112	Power Quality of Renewable Energy Systems Can Be Evaluated Using Simulation Data. , 2007, , .		0
113	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
114	AC/DC/AC Converter Modulation Strategy With Natural Zero sequence Rejection Using Only One Six-Switch Inverter Module. , 2007, , .		0
115	The Wind Farm Aggregation Impact on Power Quality. Industrial Electronics Society (IECON ), Annual Conference of IEEE, 2006, , .	0.0	17
116	Self Excitation and Harmonics in Wind Power Generation. , 2005, , .		6
117	Energy Storage and Reactive Power Compensator in a Large Wind Farm. , 2004, , .		31
118	RPM-SIM simulator - A comparison of simulated versus recorded data. , 2001, , .		1
119	Characterizing wind turbine system response to lightning activity - Preliminary results. , 1998, , .		0
120	A Review of Virtual Inertia Techniques for Renewable Energy-Based Generators. , 0, , .		2