Elyas Rakhshani

List of Publications by Year
in descending order

83	1,573	471509	345221
papers	citations	17	36
		h-index	g-index

85	85	85	1289
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Electromechanical Design of Synchronous Power Controller in Grid Integration of Renewable Power Converters to Support Dynamic Stability. Energies, 2021, 14, 2115.	3.1	1
2	Power Hardware-in-the-Loop-Based Performance Analysis of Different Converter Controllers for Fast Active Power Regulation in Low-Inertia Power Systems. Energies, 2021, 14, 3274.	3.1	2
3	Comparative study of SBOAs on the tuning procedure of the designed SMPI controller for MIMO VSP/HVDC interconnected model. International Journal of Electrical Power and Energy Systems, 2021, 129, 106812.	5.5	2
4	An optimized LQG servo controller design using LQI tracker for VSP-based AC/DC interconnected systems. International Journal of Electrical Power and Energy Systems, 2021, 129, 106752.	5.5	11
5	Dynamic Frequency Support for Low Inertia Power Systems by Renewable Energy Hubs with Fast Active Power Regulation. Electronics (Switzerland), 2021, 10, 1651.	3.1	2
6	A Review on Techno-Economic Assessment of Solar Water Heating Systems in the Middle East. Energies, 2021, 14, 4944.	3.1	15
7	High power quality maximum power point tracking-based islanding detection method for grid-connected photovoltaic systems. International Journal of Electrical Power and Energy Systems, 2021, 131, 107103.	5.5	9
8	Modeling and Optimal Tuning of Hybrid ESS Supporting Fast Active Power Regulation of Fully Decoupled Wind Power Generators. IEEE Access, 2021, 9, 46409-46421.	4.2	11
9	A Quasi-Oppositional Method for Output Tracking Control by Swarm-Based MPID Controller on AC/HVDC Interconnected Systems With Virtual Inertia Emulation. IEEE Access, 2021, 9, 77572-77598.	4.2	2
10	Implementation and Performance Comparison of Derivative and Virtual Synchronous Power Methods for Enhancement of System Frequency Stability. Power Systems, 2021, , 227-244.	0.5	0
11	Modelling and Simulation of Wind Turbines with Grid Forming Direct Voltage Control and Black-Start Capability. Power Systems, 2021, , 245-268.	0.5	0
12	A Generic RMS-Based Wind Turbine Model for the Simulation of Large Power Systems. Power Systems, 2021, , 329-336.	0.5	0
13	System Protection Schemes as a Way to Prevent Bottlenecks of the Power System Considering the Integration of Offshore and Onshore Wind Turbines and HVDC Link. Power Systems, 2021, , 217-226.	0.5	0
14	Substation expansion deferral by multi-objective battery storage scheduling ensuring minimum cost. Journal of Energy Storage, 2020, 27, 101119.	8.1	34
15	Hybrid wind-diesel-battery system planning considering multiple different wind turbine technologies installation. Journal of Cleaner Production, 2020, 247, 119654.	9.3	16
16	FAPI Controller for Frequency Support in Low-Inertia Power Systems. IEEE Open Access Journal of Power and Energy, 2020, 7, 276-286.	3.4	13
17	Assessment of critical parameters for artificial neural networks based short-term wind generation forecasting. Renewable Energy, 2020, 161, 878-892.	8.9	20
18	False Data Injection Attacks on Hybrid AC/HVDC Interconnected Systems With Virtual Inertiaâ€"Vulnerability, Impact and Detection. IEEE Access, 2020, 8, 141932-141945.	4.2	28

#	Article	IF	Citations
19	A Power Hardware-in-the-Loop Based Method for FAPR Compliance Testing of the Wind Turbine Converters Control. Energies, 2020, 13, 5203.	3.1	10
20	Effects of Cyber Attacks on AC and High-Voltage DC Interconnected Power Systems with Emulated Inertia. Energies, 2020, 13, 5583.	3.1	9
21	Power-Angle Modulation Controller to Support Transient Stability of Power Systems Dominated by Power Electronic Interfaced Wind Generation. Energies, 2020, 13, 3178.	3.1	4
22	Optimal Linear Control of Modular Multi-Level Converters with a Prescribed Degree of Stability. Electric Power Components and Systems, 2020, 48, 30-41.	1.8	3
23	MVMO-Based Identification of Key Input Variables and Design of Decision Trees for Transient Stability Assessment in Power Systems With High Penetration Levels of Wind Power. Frontiers in Energy Research, 2020, 8, .	2.3	5
24	Analysis and tuning methodology of FAPI controllers for maximising the share of grid-connected wind generations. IET Renewable Power Generation, 2020, 14, 3816-3823.	3.1	3
25	Impact Assessment of Power Electronic-based Generation Units on Harmonic Response of Power Systems Using SVD based Method. , 2020, , .		0
26	Directional derivative-based method for quasi-stationary voltage support analysis of single-infeed VSC-HVDC units. High Voltage, 2020, 5, 511-522.	4.7	1
27	An Imperialist Competitive Algorithm-Based Multi-Objective Optimization for Voltage Source Converter High-Voltage Direct Current Stations Control in Multi-Terminal HVDC Grids. Electric Power Components and Systems, 2019, 47, 316-328.	1.8	3
28	Optimal operation of hybrid electrical and thermal energy storage systems under uncertain loading condition. Applied Thermal Engineering, 2019, 160, 114094.	6.0	36
29	Correlation of multiple time-scale and uncertainty modelling for renewable energy-load profiles in wind powered system. Journal of Cleaner Production, 2019, 236, 117644.	9.3	30
30	Daily-seasonal operation in net-zero energy building powered by hybrid renewable energies and hydrogen storage systems. Energy Conversion and Management, 2019, 201, 112156.	9.2	83
31	A Key Performance Indicator to Assess the Frequency Stability of Wind Generation Dominated Power System. IEEE Access, 2019, 7, 130957-130969.	4.2	40
32	New control approach for blackstart capability of full converter wind turbines with direct voltage control. , 2019, , .		6
33	Integration of Large Scale PV-Based Generation into Power Systems: A Survey. Energies, 2019, 12, 1425.	3.1	82
34	A Data-Driven Based Voltage Control Strategy for DC-DC Converters: Application to DC Microgrid. Electronics (Switzerland), 2019, 8, 493.	3.1	18
35	Vehicle-to-grid technology for cost reduction and uncertainty management integrated with solar power. Journal of Cleaner Production, 2019, 229, 463-469.	9.3	91
36	MVMO-based tuning of Active Power Gradient Control of VSC-HVDC links for Frequency Support. , 2019, , .		0

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37	Implementation and Performance Assessment of Fast Active Power Injection Method for Type 4 Wind Turbine based on Real-time Simulation. , 2019, , .		0
38	Experimental study on overcurrent relay setting for maximum protection level. , 2019, , .		0
39	Mutual Vehicle-to-Home and Vehicle-to-Grid Operation Considering Solar-Load Uncertainty. , 2019, , .		8
40	Power System Black-Start and Restoration with High Share of Power-Electronic Converters. , 2019, , .		5
41	Optimal Linear Quadratic Regulator Design of Interconnected Systems with VSP based HVDC Links for Inertia Emulation. , 2019, , .		3
42	Design of Multivariable PI Controller Using Evolutionary Algorithms for VSP based AC/DC Interconnected Systems. , 2019, , .		1
43	Enhancement of Transient Stability in Power Systems with High Penetration Level of Wind Power Plants. , 2019, , .		4
44	Determination of Maximum Wind Power Penetration Considering Wind Turbine Fast Frequency Response. , 2019, , .		12
45	Analytical modeling and inertia estimation of VSG-controlled Type 4 WTGs: Power system frequency response investigation. International Journal of Electrical Power and Energy Systems, 2019, 107, 446-461.	5.5	26
46	Generic DSL-Based Modeling and Control of Wind Turbine Type 4 for EMT Simulations in DIgSILENT PowerFactory. Green Energy and Technology, 2018, , 355-371.	0.6	3
47	Inertia Emulation in AC/DC Interconnected Power Systems Using Derivative Technique Considering Frequency Measurement Effects. IEEE Transactions on Power Systems, 2017, 32, 3338-3351.	6.5	193
48	Heuristic Optimization of Supplementary Controller for VSC-HVDC/AC Interconnected Grids Considering PLL. Electric Power Components and Systems, 2017, 45, 288-301.	1.8	13
49	Virtual Synchronous Power Strategy for Multiple HVDC Interconnections of Multi-Area AGC Power Systems. IEEE Transactions on Power Systems, 2017, 32, 1665-1677.	6.5	118
50	On sizing the required energy of HVDC based inertia emulation for frequency control. , 2017, , .		5
51	A Novel DC-Bus Sensor-less MPPT Technique for Single-Stage PV Grid-Connected Inverters. Energies, 2016, 9, 248.	3.1	10
52	Effects of PLL and frequency measurements on LFC problem in multi-area HVDC interconnected systems. International Journal of Electrical Power and Energy Systems, 2016, 81, 140-152.	5.5	32
53	Modeling and sensitivity analyses of VSP based virtual inertia controller in HVDC links of interconnected power systems. Electric Power Systems Research, 2016, 141, 246-263.	3.6	31
54	Frequency and voltage partitioning in presence of renewable energy resources for power system (example: North Chile power network). , 2016, , .		0

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55	Frequency Control of HVDC Interconnected System Considering Derivative based Inertia Emulation. , 2016, , .		5
56	Derivative based inertia emulation of interconnected systems considering phase-locked loop dynamics. , 2016, , .		3
57	Analysis of derivative control based virtual inertia in multi‑area high‑voltage direct current interconnected power systems. IET Generation, Transmission and Distribution, 2016, 10, 1458-1469.	2.5	156
58	An active power synchronization control loop for grid-connected converters. , 2014, , .		12
59	An active power self-synchronizing controller for grid-connected converters emulating inertia. , 2014, , .		9
60	Integration of renewable generation for frequency support of HVDC/AC interconnected systems under power market scenario. , 2014, , .		1
61	Active Power and Frequency Control Considering Large-Scale RES. Green Energy and Technology, 2014, , 233-271.	0.6	7
62	Identification and local linear control of a DC-DC buck converter using local model networks. , 2013, , .		2
63	Grid connection design and control of LCL+Trap filter based two-level VSC for wave power plant applications. , 2013, , .		2
64	Design of passive trap-LCL filters for two-level grid connected converters. , 2013, , .		8
65	PSO-based LQR controller for multi modular converters. , 2013, , .		4
66	Grid connection control of VSC-based high power converters for wave energy applications. , 2013, , .		1
67	Design of the LCL&#x002B;trap filter for the two-level VSC installed in a large-scale wave power plant. , 2013, , .		21
68	Modeling and control of multi modular converters using optimal LQR controller with integral action. , 2013, , .		5
69	Effect of VSC-HVDC on load frequency control in multi-area power system. , 2012, , .		22
70	Intelligent Linear-Quadratic Optimal Output Feedback Regulator for a Deregulated Automatic Generation Control System. Electric Power Components and Systems, 2012, 40, 513-533.	1.8	27
71	Application of Imperialist Competitive Algorithm to design an optimal controller for LFC problem. , 2012, , .		4
72	PSO based optimal output feedback controller for two-area LFC system. , 2012, , .		3

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73	Practical viewpoints on load frequency control problem in a deregulated power system. Energy Conversion and Management, 2010, 51, 1148-1156.	9.2	79
74	Application of power system stabilizer in a combined model of LFC and AVR loops to enhance system stability. , 2010, , .		10
75	REDUCED-ORDER OBSERVER CONTROL FOR TWO-AREA LFC SYSTEM AFTER DEREGULATION. Control and Intelligent Systems, 2010, 38, .	0.3	10
76	Mitigation of detrimental subsynchronous oscillations by linear optimal control with prescribed degree of stability. , 2009, , .		1
77	A New Combined Model for Simulation of Mutual Effects between LFC and AVR Loops. , 2009, , .		49
78	A reduced-order estimator with prescribed degree of stability for two-area LFC system in a deregulated environment. , 2009, , .		10
79	Application of linear observer on control of subsynchronous oscillations using TCSC. , 2009, , .		2
80	Application of data mining on fault detection and prediction in Boiler of power plant using artificial neural network. , 2009, , .		15
81	Multi-area load frequency control in a deregulated power system using optimal output feedback method. , 2008, , .		29
82	Load Frequency Control of Multi-Area Restructured Power System. , 2008, , .		5
83	Simulation of two-area AGC system in a competitive environment using reduced-order observer method. , 2008, , .		17