Vahan Gevorgian

List of Publications by Year
in descending order

38	1,705	623734	713466
papers	citations	14	21
		h-index	g-index

41	41	41	1873
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Achieving a 100% Renewable Grid: Operating Electric Power Systems with Extremely High Levels of Variable Renewable Energy. IEEE Power and Energy Magazine, 2017, 15, 61-73.	1.6	846
2	Market Designs for the Primary Frequency Response Ancillary Service—Part I: Motivation and Design. IEEE Transactions on Power Systems, 2014, 29, 421-431.	6.5	153
3	Short circuit current contribution for different wind turbine generator types. , 2010, , .		81
4	Different Factors Affecting Short Circuit Behavior of a Wind Power Plant. IEEE Transactions on Industry Applications, 2013, 49, 284-292.	4.9	43
5	Grid-Level Application of Electrical Energy Storage: Example Use Cases in the United States and China. IEEE Power and Energy Magazine, 2017, 15, 51-58.	1.6	37
6	Large-Signal Impedance-Based Modeling and Mitigation of Resonance of Converter-Grid Systems. IEEE Transactions on Sustainable Energy, 2019, 10, 1439-1449.	8.8	36
7	Impedance Methods for Analyzing Stability Impacts of Inverter-Based Resources: Stability Analysis Tools for Modern Power Systems. IEEE Electrification Magazine, 2021, 9, 53-65.	1.8	33
8	Synchronous Condenser Allocation for Improving System Short Circuit Ratio. , 2018, , .		29
9	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
10	Blackstart of Power Grids with Inverter-Based Resources. , 2020, , .		29
11	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
12	Small-Signal Modeling and Design of Phase-Locked Loops Using Harmonic Signal-Flow Graphs. IEEE Transactions on Energy Conversion, 2020, 35, 600-610.	5.2	28
13	Energy Storage, Renewable Power Generation, and the Grid: NREL Capabilities Help to Develop and Test Energy-Storage Technologies. IEEE Electrification Magazine, 2015, 3, 30-40.	1.8	26
14	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
15	Advanced grid simulator for multi-megawatt power converter testing and certification. , 2016, , .		21
16	Data-Driven Dynamic Modeling in Power Systems: A Fresh Look on Inverter-Based Resource Modeling. IEEE Power and Energy Magazine, 2022, 20, 64-76.	1.6	21
17	Sequence Impedance Measurement of Utility-Scale Wind Turbines and Inverters — Reference Frame, Frequency Coupling, and MIMO/SISO Forms. IEEE Transactions on Energy Conversion, 2022, 37, 75-86.	5.2	19
18	Stability assessment of a system comprising a single machine and inverter with scalable ratings. , 2017, , .		18

#	Article	IF	Citations
19	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
20	Variable-speed wind power plant operating with reserve power capability. , 2013, , .		13
21	Identifying DQ-Domain Admittance Models of a 2.3-MVA Commercial Grid-Following Inverter via Frequency-Domain and Time-Domain Data. IEEE Transactions on Energy Conversion, 2021, 36, 2463-2472.	5.2	12
22	Generic characterization of electrical test benches for AC- and HVDC-connected wind power plants. Wind Energy Science, 2020, 5, 561-575.	3.3	11
23	Multi-megawatt-scale fower-hardware-in-the-loop interface for testing ancillary grid services by converter-coupled generation. , 2017, , .		9
24	Distributed Real-Time Simulation and its Applications to Wind Energy Research. , 2018, , .		9
25	Validating Performance Models for Hybrid Power Plant Control Assessment. Energies, 2019, 12, 4330.	3.1	9
26	Inertial response of wind power plants: A comparison of frequency-based inertial control and stepwise inertial control. , 2016, , .		8
27	Generic Multi-Frequency Modelling of Converter-Connected Renewable Energy Generators Considering Frequency and Sequence Couplings. IEEE Transactions on Energy Conversion, 2022, 37, 547-559.	5.2	8
28	Utilisation of real‐scale renewable energy test facility for validation of generic wind turbine and wind power plant controller models. IET Renewable Power Generation, 2016, 10, 1123-1131.	3.1	7
29	Impedance Characterization of Utility-Scale Renewable Energy and Storage Systems. , 2019, , .		7
30	Test methodology for validation of multi‐frequency models of renewable energy generators using small‐signal perturbations. IET Renewable Power Generation, 2021, 15, 3564-3576.	3.1	5
31	Grid-Forming Wind: Getting ready for prime time, with or without inverters. IEEE Electrification Magazine, 2022, 10, 52-64.	1.8	4
32	Equivalent Test Bed in PSCAD and PSLF for Studying Advanced Power Systems Controller Performance. , 2019, , .		3
33	Market designs for the primary frequency response ancillary service. , 2014, , .		1
34	Sizing SiC storage inverters for fast grid frequency support. , 2015, , .		1
35	Flywheel Energy Storage - Dynamic Modeling. , 2017, , .		1
36	Offering of Variable Resources in Regulation Markets With Performance Targets: An Analysis. IEEE Transactions on Sustainable Energy, 2022, 13, 1620-1630.	8.8	1

#	Article	IF	Citations
37	Simulation tool to assess mechanical and electrical stresses on wind turbine generators. , 2013, , .		0
38	Implementing Inertial Control for PMSG-WTG in Region 2 using Virtual Synchronous Generator with Multiple Virtual Rotating Masses. , 2019, , .		0