

Virtual Inertia: Current Trends and Future Directions

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Citation Report

#	ARTICLE	IF	CITATIONS
1	Special Issue on Advances in Integrated Energy Systems Design, Control and Optimization. Applied Sciences (Switzerland), 2017, 7, 727.	1.3	0
2	A Time-Varying Potential-Based Demand Response Method for Mitigating the Impacts of Wind Power Forecasting Errors. Applied Sciences (Switzerland), 2017, 7, 1132.	1.3	9
3	Stabilizing Droop Variation of Converter-Connected Generation in Autonomous Microgrids with Virtual Inertia Control. , 2018, , .		3
4	Optimal Design of Virtual Inertia and Damping Coefficients for Virtual Synchronous Machines. , 2018, , .		19
5	Virtual Inertia Emulation using Commercial Off-The-Shelf Inverters. , 2018, , .		2
6	Application of a Virtual Synchronous Machine for Undershoot Reduction of the Frequency in Microgrids with Renewable Generation. , 2018, , .		3
7	Frequency Regulation in Hybrid Power Dynamics with Variable and Low Inertia due to Renewable Energy. , 2018, , .		6
8	Coordinated Frequency Control Strategy of BESS integrating high proportion of Wind power plant with a Steam turbine. , 2018, , .		2
9	Educating Microgrids Using Planning Tools-Interactive Case Studies and Lessons Learned. , 2018, , .		0
10	Grid Integration of PV System Using Synchronverter. , 2018, , .		5
11	Frequency Response in Grids with High Penetration of Renewable Energy Sources. , 2018, , .		12
12	Comparative Analysis of Current Control Techniques to Support Virtual Inertia Applications. Applied Sciences (Switzerland), 2018, 8, 2695.	1.3	19
13	Deep Learning Based Transient Stability Assessment for Grid-Connected Inverter. , 2018, , .		8
14	A Study on the Placement of Virtual Synchronous Generator in a Two-Area System. , 2018, , .		8
15	On Small Signal Frequency Stability under Virtual Inertia and the Role of PLLs. Energies, 2018, 11, 2372.	1.6	19
16	Power quality challenges and mitigation measures in grid integration of wind energy conversion systems. , 2018, , .		11
17	Virtual DC machine: an inertia emulation and control technique for a bidirectional DCâ€“DC converter in a DC microgrid. IET Electric Power Applications, 2018, 12, 874-884.	1.1	68
18	Decentralised and interlink-less power interchange among residences in microgrids using virtual synchronous generator control. Applied Energy, 2018, 228, 2437-2447.	5.1	12

#	ARTICLE	IF	CITATIONS
19	Virtual Inertia Control Application to Enhance Frequency Stability of Interconnected Power Systems with High Renewable Energy Penetration. <i>Energies</i> , 2018, 11, 981.	1.6	123
20	A Control Approach and Supplementary Controllers for a Stand-Alone System with Predominance of Wind Generation. <i>Energies</i> , 2018, 11, 411.	1.6	10
21	Frequency Response Analysis of a Single-Area Power System with a Modified LFC Model Considering Demand Response and Virtual Inertia. <i>Energies</i> , 2018, 11, 787.	1.6	28
22	A frequency control approach based on wind generation operating as virtual synchronous generator. , 2018, , .		0
23	Electric power system inertia: requirements, challenges and solutions. <i>Electrical Engineering</i> , 2018, 100, 2677-2693.	1.2	71
24	Frequency prediction method considering demand response aggregate characteristics and control effects. <i>Applied Energy</i> , 2018, 229, 936-944.	5.1	20
25	Grid Frequency Support From V2G Aggregators and HVdc Links in Presence of Nonsynchronous Units. <i>IEEE Systems Journal</i> , 2019, 13, 1757-1766.	2.9	18
26	Modeling Hydro Power System Frequency Dynamics for Virtual Inertia Emulation. , 2019, , .		1
27	Frequency Support Properties of the Synchronous Power Control for Grid-Connected Converters. <i>IEEE Transactions on Industry Applications</i> , 2019, 55, 5178-5189.	3.3	37
28	Applying Virtual Inertia Control Topology to SMES System for Frequency Stability Improvement of Low-Inertia Microgrids Driven by High Renewables. <i>Energies</i> , 2019, 12, 3902.	1.6	44
29	Optimized Swing Equation Control for Battery Energy Storage Systems. , 2019, , .		1
30	Effects of decreasing synchronous inertia on power system dynamics“Overview of recent experiences and marketisation of services. <i>International Transactions on Electrical Energy Systems</i> , 2019, 29, e12128.	1.2	71
31	Interval-Based Adaptive Inertia and Damping Control of a Virtual Synchronous Machine. , 2019, , .		6
33	Ancillary Services in Hybrid AC/DC Low Voltage Distribution Networks. <i>Energies</i> , 2019, 12, 3591.	1.6	6
34	Microgrid Frequency & Voltage Adjustment Applying Virtual Synchronous Generator. , 2019, , .		7
35	Enhancement the Dynamic Performance of Islanded Microgrid Using a Coordination of Frequency Control and Digital Protection. <i>International Journal of Emerging Electric Power Systems</i> , 2019, 20, .	0.6	4
36	Impacts of Responsive Loads and Energy Storage System on Frequency Response of a Multi-Machine Power System. <i>Machines</i> , 2019, 7, 34.	1.2	8
37	Large Scale Renewable Energy Integration: Issues and Solutions. <i>Energies</i> , 2019, 12, 1996.	1.6	49

#	ARTICLE	IF	CITATIONS
38	Revolution of frequency regulation in the converter-dominated power system. Renewable and Sustainable Energy Reviews, 2019, 111, 145-156.	8.2	38
39	Evaluating rotational inertia as a component of grid reliability with high penetrations of variable renewable energy. Energy, 2019, 180, 258-271.	4.5	94
40	Review on Frequency Adjustment for Power Systems with Grid Connected Wind Farm. , 2019, , .		13
41	Validation of advanced grid functions of battery storage systems through a controller hardware-in-the-loop setup. Elektrotechnik Und Informationstechnik, 2019, 136, 12-20.	0.7	2
42	Inertia Provision and Small Signal Stability Analysis of a Wind-Power Generation System Using Phase-Locked Synchronized Equation. Sustainability, 2019, 11, 1400.	1.6	4
43	Modeling Vehicles to Grid as a Source of Distributed Frequency Regulation in Isolated Grids with Significant RES Penetration. Energies, 2019, 12, 720.	1.6	24
44	Analysis of the Sensitivity of Extended Kalman Filter-Based Inertia Estimation Method to the Assumed Time of Disturbance. Energies, 2019, 12, 483.	1.6	18
45	Optimization of virtual inertia considering system frequency protection scheme. Electric Power Systems Research, 2019, 170, 294-302.	2.1	43
46	Evolution of microgrids with converter-interfaced generations: Challenges and opportunities. International Journal of Electrical Power and Energy Systems, 2019, 109, 160-186.	3.3	206
47	Frequency Control and Virtual Inertia Emulation Techniques for Grid Connected Wind Energy Conversion Systems - A Review. , 2019, , .		5
48	Transient Stability Analysis in Grid Integrated Solar Farm. , 2019, , .		0
49	Transient Stability Analysis in Grid Integrated Solar Farm. , 2019, , .		1
50	Design and Control of Storage Systems for Voltage Source Controlled Autonomous Microgrids. , 2019, , .		2
51	Frequency Regulation using Sparse Learned Controllers in Power Grids with Variable Inertia due to Renewable Energy. , 2019, , .		1
52	Virtual inertia impact on the performance of photovoltaic system. , 2019, , .		1
53	Virtual Inertia-Based Inverters for Mitigating Frequency Instability in Grid-Connected Renewable Energy System: A Review. Applied Sciences (Switzerland), 2019, 9, 5300.	1.3	72
54	Energy Storage Systems in Emerging Electricity Markets: Frequency Regulation and Resiliency. , 2019, , .		3
55	Impact of Virtual Synchronous Generator on Stability Delay Margins of a Micro-Grid with Communication Time Delay. , 2019, , .		0

#	ARTICLE	IF	CITATIONS
56	Frequency Regulation using Data-Driven Controllers in Power Grids with Variable Inertia due to Renewable Energy. , 2019, , .		7
57	Small Signal Modelling and Determination of Critical Value of Inertia for Virtual Synchronous Generator. , 2019, , .		4
58	Optimal Placement of Energy Storage with Synthetic Inertia Control on a Grid with High Penetration of Renewables using Mean-Variance Mapping Optimization. , 2019, , .		4
59	Impact of Distributed Energy Resources on Frequency Regulation of the Bulk Power System. , 2019, , .		10
60	Implementation of a Virtual Synchronous Machine to Improve the Dynamic Response of Inverters. , 2019, , .		1
61	Impact assessment of virtual synchronous generator on the electromechanical dynamics of type 4 wind turbine generators. IET Generation, Transmission and Distribution, 2019, 13, 5294-5304.	1.4	15
62	The Case Against Phase-Locked Loops in Weak AC Grids. , 2019, , .		5
63	Guidelines for required grid-supportive functions in grid-tied inverters with distributed energy resources. IET Energy Systems Integration, 2019, 1, 236-245.	1.1	7
64	Optimising Power System Frequency Stability Using Virtual Inertia from Inverter-based Renewable Energy Generation. , 2019, , .		10
65	Implications for the Rate of Change of Frequency on an Isolated Power System. , 2019, , .		3
66	A Hardware-in-the-Loop Validation of Advanced Balancing Services in Power Systems. , 2019, , .		0
67	Analysis of power system inertia estimation in high wind power plant integration scenarios. IET Renewable Power Generation, 2019, 13, 2807-2816.	1.7	49
68	Virtual Synchronous Machine Control for Grid Transmission Compliance Studies. , 2019, , .		1
69	Decentralized Unified Control for Inverter-Based AC Microgrids Subject to Voltage Constraints. IEEE Access, 2019, 7, 157318-157329.	2.6	10
70	Virtual Synchronous Machine Control for Low-Inertia Power System Considering Energy Storage Limitation. , 2019, , .		6
71	Fast frequency response from a UPS system of a data center, background, and pilot results. , 2019, , .		2
72	Synthetic Inertia for Frequency Regulation of Electric Grid using Modular-Multilevel Converter. , 2019, , .		2
73	Improved VSG Control for Type-IV Wind Turbine Generator Considering Operation Limitations. , 2019, , .		7

#	ARTICLE	IF	CITATIONS
74	Effects of Virtual Inertia on Stability and Power Sharing in Inverter-Based Power Systems. , 2019, , .		2
75	Virtual DC Generator Control Strategy Based on Differential Compensation. , 2019, , .		12
76	An Optimization-based Method for Estimating Critical Inertia in Smart Grids. , 2019, , .		4
77	On the Costs of Grid Inertia. , 2019, , .		1
78	AC load bus frequency control of a DC microgrid based on DC voltage regulation using inertia emulation and economic power management. IET Generation, Transmission and Distribution, 2019, 13, 5117-5128.	1.4	13
79	Inertial Control Applied to Synchronverters to Achieve Linear Swing Dynamics. , 2019, , .		2
80	LQR-Based Adaptive Virtual Synchronous Machine for Power Systems With High Inverter Penetration. IEEE Transactions on Sustainable Energy, 2019, 10, 1501-1512.	5.9	120
81	Enhanced Virtual Inertia Control Based on Derivative Technique to Emulate Simultaneous Inertia and Damping Properties for Microgrid Frequency Regulation. IEEE Access, 2019, 7, 14422-14433.	2.6	144
82	Inertia emulation from HVDC links for LFC in the presence of smart V2G networks. , 2019, , 251-265.		1
83	Large-scale grid integration of residential thermal energy storages as demand-side flexibility resource: A review of international field studies. Renewable and Sustainable Energy Reviews, 2019, 101, 527-547.	8.2	121
84	Seamless Transition of Microgrids Operation From Grid-Connected to Islanded Mode. IEEE Transactions on Smart Grid, 2020, 11, 2106-2114.	6.2	115
85	Measurement-Based Estimation of Inertia in AC Microgrids. IEEE Transactions on Sustainable Energy, 2020, 11, 1975-1984.	5.9	64
86	Microgrid Stability Definitions, Analysis, and Examples. IEEE Transactions on Power Systems, 2020, 35, 13-29.	4.6	422
87	Stability analysis of a PMSG based Virtual Synchronous Machine. Electric Power Systems Research, 2020, 180, 106170.	2.1	16
88	Control Methods for Standalone and Grid Connected Micro-Hydro Power Plants With Synthetic Inertia Frequency Support: A Comprehensive Review. IEEE Access, 2020, 8, 176313-176329.	2.6	23
89	Ancillary Services Offered by Distributed Renewable Energy Sources at the Distribution Grid Level: An Attempt at Proper Definition and Quantification. Applied Sciences (Switzerland), 2020, 10, 7106.	1.3	22
90	Employing Virtual Synchronous Generator with a New Control Technique for Grid Frequency Stabilization. , 2020, , .		2
91	Impact of Virtual Synchronous Machines on Low-Frequency Oscillations in Power Systems. IEEE Transactions on Power Systems, 2021, 36, 1934-1946.	4.6	22

#	ARTICLE	IF	CITATIONS
92	Optimal sizing of Battery Energy Storage Systems for dynamic frequency control in an islanded microgrid: A case study of Flinders Island, Australia. <i>Energy</i> , 2020, 195, 117059.	4.5	94
93	Enhancing the dynamic performance of microgrid using derivative controlled solar and energy storage based virtual inertia system. <i>Journal of Energy Storage</i> , 2020, 31, 101613.	3.9	51
94	Emulating Rotational Inertia of Synchronous Machines by a New Control Technique in Grid-Interactive Converters. <i>Sustainability</i> , 2020, 12, 5346.	1.6	12
95	Classification and dynamic assessment of droop-based grid-forming control schemes: Application in HVDC systems. <i>Electric Power Systems Research</i> , 2020, 189, 106765.	2.1	29
96	Synchronverter: A Comprehensive Review of Modifications, Stability Assessment, Applications and Future Perspectives. <i>IEEE Access</i> , 2020, 8, 131565-131589.	2.6	53
97	Operating Region of a Genset-Based Virtual Synchronous Generator. <i>IEEE Access</i> , 2020, 8, 136382-136392.	2.6	0
98	Comparison of Control Strategies to Realize Synthetic Inertia in Converters. <i>Energies</i> , 2020, 13, 3491.	1.6	6
99	High-Level Penetration of Renewable Energy Sources Into Grid Utility: Challenges and Solutions. <i>IEEE Access</i> , 2020, 8, 190277-190299.	2.6	156
100	Multi-terminal Medium Voltage DC Distribution Network Large-signal Stability Analysis. <i>Journal of Electrical Engineering and Technology</i> , 2020, 15, 2099-2110.	1.2	2
101	A Polynomial Chaos-based Approach to Sizing of Virtual Synchronous Generators. , 2020, , .		1
102	Virtual Inertia Based Control of PV-STATCOM: Operation Under Unbalanced Frequency and Grid Conditions. , 2020, , .		1
103	Synthetic Inertia from Wind Turbines for Large System Stability. , 2020, , .		3
104	Improving Transient Stability of an Islanded Microgrid Using PV Based Virtual Synchronous Machines. , 2020, , .		3
105	Reviews On Inertia Emulation Technology With Power Electronics. , 2020, , .		9
106	Synchronverter-based Control of Multi-Port Autonomous Reconfigurable Solar Plants (MARS). , 2020, , .		4
107	Stochastic Unit Commitment in Low-Inertia Grids. <i>IEEE Transactions on Power Systems</i> , 2020, 35, 3448-3458.	4.6	111
108	Determining the Load Inertia Contribution from Different Power Consumer Groups. <i>Energies</i> , 2020, 13, 1588.	1.6	19
109	Towards Optimal System Scheduling With Synthetic Inertia Provision From Wind Turbines. <i>IEEE Transactions on Power Systems</i> , 2020, 35, 4056-4066.	4.6	77

#	ARTICLE	IF	CITATIONS
110	Operation and control of Synchronverter technique in grid connected and intentional islanding modes for AC micro grids. , 2020, , .		5
111	Enhancing inertia of solar photovoltaic-based microgrid through notch filter-based PLL in SRF control. IET Generation, Transmission and Distribution, 2020, 14, 379-388.	1.4	12
112	Modeling the Impact of Modified Inertia Coefficient (H) due to ESS in Power System Frequency Response Analysis. Energies, 2020, 13, 902.	1.6	5
113	Analysis of the Converter Synchronizing Method for the Contribution of Battery Energy Storage Systems to Inertia Emulation. Energies, 2020, 13, 1478.	1.6	19
114	Ancillary Services Market Design in Distribution Networks: Review and Identification of Barriers. Energies, 2020, 13, 917.	1.6	81
115	Smart Transformers as Active Interfaces Enabling the Provision of Power-Frequency Regulation Services from Distributed Resources in Hybrid AC/DC Grids. Applied Sciences (Switzerland), 2020, 10, 1434.	1.3	8
116	Small Signal Modeling and Stability Analysis of Novel Grid Connected Z-Source Virtual Synchronous Generator (ZVSG). , 2020, , .		0
117	Dynamic Analysis and Model Order Reduction of Virtual Synchronous Machine Based Microgrid. IEEE Access, 2020, 8, 106585-106600.	2.6	15
118	Future low-inertia power systems: Requirements, issues, and solutions - A review. Renewable and Sustainable Energy Reviews, 2020, 124, 109773.	8.2	219
119	An SOC-Based Virtual DC Machine Control for Distributed Storage Systems in DC Microgrids. IEEE Transactions on Energy Conversion, 2020, 35, 1411-1420.	3.7	69
120	Heuristic Optimization of Virtual Inertia Control in Grid-Connected Wind Energy Conversion Systems for Frequency Support in a Restructured Environment. Energies, 2020, 13, 564.	1.6	23
121	Power System Resilience: Current Practices, Challenges, and Future Directions. IEEE Access, 2020, 8, 18064-18086.	2.6	200
122	Understanding the impact of non-synchronous wind and solar generation on grid stability and identifying mitigation pathways. Applied Energy, 2020, 262, 114492.	5.1	78
123	Improving Small-Signal Stability of Power Systems With Significant Converter-Interfaced Generation. IEEE Transactions on Power Systems, 2020, 35, 2904-2914.	4.6	28
124	Multiterminal Medium Voltage DC Distribution Network Hierarchical Control. Electronics (Switzerland), 2020, 9, 506.	1.8	20
125	Linear and uniform swing dynamics in multimachine converter-based power systems. International Journal of Electrical Power and Energy Systems, 2021, 125, 106475.	3.3	0
126	An Overview of Virtual Inertia and Its Control. Power Systems, 2021, , 1-11.	0.3	5
127	Optimization-Based Fast-Frequency Estimation and Control of Low-Inertia Microgrids. IEEE Transactions on Energy Conversion, 2021, 36, 1459-1468.	3.7	18

#	ARTICLE	IF	CITATIONS
128	Improvement of transient response in grid-tied photovoltaic systems using virtual inertia. IET Smart Grid, 2021, 4, 1-14.	1.5	3
129	A Distributed Model Predictive Control Framework for Grid-Friendly Distributed Energy Resources. IEEE Transactions on Sustainable Energy, 2021, 12, 727-738.	5.9	14
130	Design of Hybrid-Storage-Based Virtual Synchronous Machine With Energy Recovery Control Considering Energy Consumed in Inertial and Damping Support. IEEE Transactions on Power Electronics, 2022, 37, 2648-2666.	5.4	18
131	Overview of Frequency-Control Technologies for a VSC-HVDC-Integrated Wind Farm. IEEE Access, 2021, 9, 112893-112921.	2.6	24
132	Under Frequency Protection Enhancement of an Islanded Active Distribution Network Using a Virtual Inertia-Controlled-Battery Energy Storage System. Sustainability, 2021, 13, 484.	1.6	4
133	Investigating the frequency fault ride through capability of solar photovoltaic system: Replacing battery via virtual inertia reserve. International Transactions on Electrical Energy Systems, 2021, 31, e12791.	1.2	1
134	Storage-Based Frequency Shaping Control. IEEE Transactions on Power Systems, 2021, 36, 5006-5019.	4.6	17
135	Real-Time Estimation of Microgrid Inertia and Damping Constant. IEEE Access, 2021, 9, 114523-114534.	2.6	13
136	Resilience in an Evolving Electrical Grid. Energies, 2021, 14, 694.	1.6	15
137	Cooperative Virtual Inertia and Reactive Power Control of PMSG Wind Generator and Battery for Improving Transient Stability of Power System Including Renewable Energy Sources. , 2021, , .		1
138	Reduced-Order-VSM-Based Frequency Controller for Wind Turbines. Energies, 2021, 14, 528.	1.6	3
139	Review of Dynamic and Transient Modeling of Power Electronic Converters for Converter Dominated Power Systems. IEEE Access, 2021, 9, 82094-82117.	2.6	29
140	Provision of Synthetic Inertia Support for Converter-Dominated Weak Grids. IEEE Systems Journal, 2022, 16, 2068-2077.	2.9	9
141	Optimized Tilt Fractional Order Cooperative Controllers for Preserving Frequency Stability in Renewable Energy-Based Power Systems. IEEE Access, 2021, 9, 8261-8277.	2.6	43
142	Simultaneous Optimization of Virtual Synchronous Generators (VSG) Parameters in Islanded Microgrids Supplying Induction Motors. IEEE Access, 2021, 9, 124972-124985.	2.6	8
143	Grid Forming Inverter Modeling, Control, and Applications. IEEE Access, 2021, 9, 114781-114807.	2.6	151
144	Multi-Mode Operation and Control of a Z-Source Virtual Synchronous Generator in PV Systems. IEEE Access, 2021, 9, 53003-53012.	2.6	5
145	Analysis of Control Strategies Based on Virtual Inertia for the Improvement of Frequency Stability in an Islanded Grid with Wind Generators and Battery Energy Storage Systems. Energies, 2021, 14, 698.	1.6	8

#	ARTICLE	IF	CITATIONS
146	Dual Two-Level Voltage Source Inverter Virtual Inertia Emulation: A Comparative Study. <i>Energies</i> , 2021, 14, 1160.	1.6	13
147	High-Level Renewable Energy Integrated System Frequency Control with SMES-Based Optimized Fractional Order Controller. <i>Electronics (Switzerland)</i> , 2021, 10, 511.	1.8	16
148	An overview of grid-edge control with the digital transformation. <i>Electrical Engineering</i> , 2021, 103, 1989-2007.	1.2	9
149	Virtual Inertia Control Methods in Islanded Microgrids. <i>Energies</i> , 2021, 14, 1562.	1.6	23
150	Contribution of Wind Farms to the Stability of Power Systems with High Penetration of Renewables. <i>Energies</i> , 2021, 14, 2207.	1.6	6
151	Seamless Transition between Islanded and Grid Connected Three-Phase VSI-based Microgrids. <i>Engineering, Technology & Applied Science Research</i> , 2021, 11, 6882-6888.	0.8	2
152	Evaluation of Probing Signals for Implementing Moving Horizon Inertia Estimation in Microgrids. , 2021, , .		6
153	Data-Driven Evaluation of Secondary- and Tertiary-Reserve Needs with High Renewables Penetration: The Italian Case. <i>Energies</i> , 2021, 14, 2157.	1.6	5
154	Convolutional Neural Network-based Inertia Estimation using Local Frequency Measurements. , 2021, , .		7
155	A Spectral Model of Grid Frequency for Assessing the Impact of Inertia Response on Wind Turbine Dynamics. <i>Energies</i> , 2021, 14, 2492.	1.6	7
156	Enhancing the performance of a deregulated nonlinear integrated power system utilizing a redox flow battery with a self-tuning fractional-order fuzzy controller. <i>ISA Transactions</i> , 2022, 121, 284-305.	3.1	13
157	Analysis and Improvement of an Algorithm for the Online Inertia Estimation in Power Grids with RES. , 2021, , .		4
158	DC Microgrid Voltage Stability through Inertia Enhancement Using a Bidirectional DC-DC Converter. , 2021, , .		12
159	The Role of Fast Frequency Response of Energy Storage Systems and Renewables for Ensuring Frequency Stability in Future Low-Inertia Power Systems. <i>Sustainability</i> , 2021, 13, 5656.	1.6	11
160	Virtual inertia emulation and RoCoF control of a microgrid with high renewable power penetration. <i>Electric Power Systems Research</i> , 2021, 194, 107093.	2.1	35
161	Review of Impedance-Based Analysis Methods Applied to Grid-Forming Inverters in Inverter-Dominated Grids. <i>Energies</i> , 2021, 14, 2686.	1.6	15
162	Load frequency control of a photovoltaic-pumped hydro power energy storagebased micro-grid System. , 2021, , .		1
163	Damping of Torsional Vibrations in a Type-IV Wind Turbine Interfaced to a Grid-Forming Converter. , 2021, , .		3

#	ARTICLE	IF	CITATIONS
164	Z-source Virtual Synchronous Generator: Operation and Control. , 2021, , .		2
165	Frequency Control Ancillary Services in Power System with Integration of PV Generation. , 2021, , .		2
166	Contribution of Voltage Support Function to Virtual Inertia Control Performance of Inverter-Based Resource in Frequency Stability. Energies, 2021, 14, 4220.	1.6	15
167	Adaptive frequency regulation strategy in multi-area microgrids including renewable energy and electric vehicles supported by virtual inertia. International Journal of Electrical Power and Energy Systems, 2021, 129, 106814.	3.3	69
168	Understanding the impact of network topology on frequency stability considering continuous spatial-temporal disturbances from wind generation. International Journal of Electrical Power and Energy Systems, 2021, 129, 106776.	3.3	12
169	BESS as a UPS to Power Systems With High Solar Penetration. Frontiers in Energy Research, 2021, 9, .	1.2	0
170	Frequency response enhancement of an AC micro-grid has renewable energy resources based generators using inertia controller. Electric Power Systems Research, 2021, 196, 107194.	2.1	12
171	Voltage control and virtual synchronous generator control of HVDC interconnection line for improving stability of power system including large-scale wind farm. IET Generation, Transmission and Distribution, 2021, 15, 3375.	1.4	2
172	Analysis of a Fast Reserve Unit Behaviour with Additional Modular Synthetic Inertia Control. , 2021, , .		0
173	Dynamic performance enhancement of interconnected hybrid thermal power system in the presence of electric vehicles. Case Studies in Thermal Engineering, 2021, 26, 101045.	2.8	7
174	Comparative Study of Sugeno and Mamdani Fuzzy Inference Systems for Virtual Inertia Emulation. , 2021, , .		5
175	The role of inertia for grid flexibility under high penetration of variable renewables - A review of challenges and solutions. Renewable and Sustainable Energy Reviews, 2021, 147, 111223.	8.2	79
176	Adaptive MPPT control applied to virtual synchronous generator to extend the inertial response of type-4 wind turbine generators. Sustainable Energy, Grids and Networks, 2021, 27, 100504.	2.3	9
178	Analytical review on common and state-of-the-art FR strategies for VSC-MTDC integrated offshore wind power plants. Renewable and Sustainable Energy Reviews, 2021, 148, 111106.	8.2	16
179	Challenges and opportunities of inertia estimation and forecasting in low-inertia power systems. Renewable and Sustainable Energy Reviews, 2021, 147, 111176.	8.2	46
180	Compensation of mass-based effects in component scaling on a hardware-in-the-loop test bench by virtual inertia. Mechatronics, 2021, 78, 102622.	2.0	1
181	Estimation of Non-Synchronous Inertia in AC Microgrids. IEEE Transactions on Sustainable Energy, 2021, 12, 1903-1914.	5.9	24
182	A comprehensive comparison of Virtual Synchronous Generators with focus on virtual inertia and frequency regulation. Electric Power Systems Research, 2021, 201, 107516.	2.1	46

#	ARTICLE	IF	CITATIONS
183	Power system inertia estimation: Review of methods and the impacts of converter-interfaced generations. International Journal of Electrical Power and Energy Systems, 2022, 134, 107362.	3.3	74
184	Frequency response support assessment from uncertain wind generation. International Journal of Electrical Power and Energy Systems, 2022, 134, 107465.	3.3	25
185	Enhancing the transient performance and dynamic stability of microgrid using PI inertia injection controller. International Journal of Electrical Power and Energy Systems, 2022, 134, 107334.	3.3	5
186	Virtual Inertia Control Strategy in Microgrid Stability Control: A Conceptual Synthesis and Discussion. Lecture Notes in Networks and Systems, 2021, , 97-109.	0.5	0
187	Adaptive Robust Control Based on System Identification in Microgrid Considering Converter Controlled-Based Generator Modes. IEEE Access, 2021, 9, 125970-125983.	2.6	3
188	Frequency regulation support from aggregation of air conditioners based on the trigger value local update strategy. IET Generation, Transmission and Distribution, 2020, 14, 3150-3160.	1.4	9
189	Adaptive inertia emulation control for high-speed flywheel energy storage systems. IET Generation, Transmission and Distribution, 2020, 14, 5047-5059.	1.4	27
190	Optimising power system frequency stability using virtual inertia from inverter-based renewable energy generation. IET Renewable Power Generation, 2020, 14, 2820-2829.	1.7	16
191	Virtual inertia provision through data centre and electric vehicle for ancillary services support in microgrid. IET Renewable Power Generation, 2020, 14, 3792-3801.	1.7	9
192	An Adaptive Parameter-Based Control Technique of Virtual Synchronous Generator for Smooth Transient Between Islanded and Grid-Connected Mode of Operation. IEEE Access, 2021, 9, 137322-137337.	2.6	4
193	Power-Loop-Free Virtual DC Machine Control With Differential Compensation. IEEE Transactions on Industry Applications, 2022, 58, 413-422.	3.3	12
194	Virtual Inertia Controller for the Grid Interfacing Inverter of Wind Energy System. , 2021, , .		1
195	On Short Circuit of Grid-Forming Converters Controllers: A glance of the Dynamic Behaviour. , 2021, , .		6
196	Virtual Inertia Implementation in Variable Speed Hydropower Plant. , 2019, , .		1
197	Probabilistic Sizing of Virtual Energy Storage Devices for Transient Stability Enhancement. , 2020, , .		1
198	Towards Distribution Feeders Frequency Response via Solid State Transformers. , 2020, , .		1
199	Cooperative Virtual Inertia and Reactive Power Control of PMSG Wind Generator and Battery for Improving Transient Stability of Power System. , 2020, , .		4
200	Stability properties of non-linear model predictive control of variable speed hydropower. IET Renewable Power Generation, 2020, 14, 4019-4028.	1.7	0

#	ARTICLE	IF	CITATIONS
201	Adaptive Variable Synthetic Inertia from a Virtual Synchronous Machine Providing Ancillary Services for an AC MicroGrid. IFAC-PapersOnLine, 2020, 53, 12968-12973.	0.5	3
202	SIMULATION MODEL AND CONTROL ALGORITHM FOR ISOLATED HYDRO-WIND POWER SYSTEM. Technical Electrodynamics, 2020, 2020, 17-26.	0.3	3
203	Linear Quadratic Regulator Controller to Improve Transient Frequency Stability Through Virtual Inertia. , 2020, , .		4
204	Virtual Synchronous Generator: Parameter Sensitivity Analysis. , 2021, , .		1
205	Current-Limiting VSG for Renewable Energy Applications. , 2021, , .		0
206	Application of energy routers for frequency support in an AC/DC multi-microgrid system. , 2021, , .		2
207	On the Participation of Charging Point Operators to the Frequency Regulation Service using Plug-in Electric Vehicles and 5G Communications. , 2021, , .		3
208	Technical Challenges and Further Research in Virtual Inertia Control. Power Systems, 2021, , 249-256.	0.3	0
209	Virtual Inertia a must for mitigation of frequency instability in Microgrids: A Comprehensive Review. , 2021, , .		3
210	Frequency Support provided by Inverted Based-Generation using Grid-Forming Controllers: A Comparison during Islanded Operation. , 2021, , .		3
211	Modified Virtual Inertia Mechanism Based ESS for A real Multi-Source Power System Application: the Egyptian Grid. , 2021, , .		2
212	Model Development of Diesel Generator using Volts/Hertz Limiter and Comparing Governor Models for Remote Islanded Microgrids. , 2021, , .		1
213	Enhancement of frequency stability of power systems integrated with wind energy using marine predator algorithm based PIDA controlled STATCOM. AEJ - Alexandria Engineering Journal, 2022, 61, 5851-5867.	3.4	16
214	Hybridization of battery with pico hydel for frequency regulation of microgrids using synchronverter control. IET Renewable Power Generation, 2022, 16, 274-286.	1.7	0
215	Stability Analysis of Grid-Forming MMC-HVDC Transmission Connected to Legacy Power Systems. Energies, 2021, 14, 8017.	1.6	10
216	Stability Improvement of Power System by Cooperative Virtual Inertia Control and Reactive Power Control of PMSC Wind Generator and Battery. IEEJ Transactions on Power and Energy, 2021, 141, 773-781.	0.1	0
217	Enhanced control of voltage source converters considering virtual inertia theory. International Transactions on Electrical Energy Systems, 2021, 31, e13245.	1.2	1
218	Modeling and Initialization of a Virtual Synchronous Machine for Power System Fundamental Frequency Simulations. IEEE Access, 2021, 9, 160116-160134.	2.6	17

#	ARTICLE	IF	CITATIONS
219	Sizing of Energy Storage for Grid Inertial Support in Presence of Renewable Energy. IEEE Transactions on Power Systems, 2022, 37, 3769-3778.	4.6	17
220	Online purely data-driven estimation of inertia and center-of-inertia frequency for power systems with VSC-interfaced energy sources. International Journal of Electrical Power and Energy Systems, 2022, 137, 107643.	3.3	9
221	A Review of Limitations of Wind Synthetic Inertia Methods. , 2020, , .		4
222	Optimal Control for Improved Damping of Virtual Synchronous Machines. , 2020, , .		0
223	Load Frequency Control for Multi-area Power Systems with Renewable Energy Penetration. , 2020, , .		0
224	Evaluation of Smart Energy Management Systems and Novel UV-Oriented Solution for Integration, Resilience, Inclusiveness and Sustainability. , 2020, , .		6
225	A Comparative Study Between the PQ and IV Droop Control. , 2020, , .		0
226	Analysis of the Impact of Synthetic Inertia on Frequency Variations and on Turbine Governor Dead-Bands. , 2020, , .		1
227	Robust Controller Design for a Virtual Synchronous Generator (VSG) Using Linear Matrix Inequalities. , 2020, , .		1
228	Adaptive-Passive Virtual Inertia Control Based on Energy Balance Between a Synchronous Generator and a Three-Phase Inverter. , 2020, , .		1
229	Distributed Inter-Area Oscillation Damping Control via Dynamic Average Consensus Algorithm. , 2020, , .		0
230	MPC-Based Multi-Inverter Power Control in Low-Inertia Power Systems. , 2021, , .		0
231	False Relay Operation Attacks in Power Systems with High Renewables. , 2021, , .		5
232	Grid-Forming Inverter with Simplified Virtual Synchronous Compensator Providing Grid Services and Grid Support. , 2021, , .		1
233	Equivalent Active Distribution Networks Considering Grid Forming Converters. , 2021, , .		4
234	A New Generator Clustering Approach for Power System Inertia Estimation With Reduced Number of Frequency Monitoring Nodes. , 2021, , .		0
235	A Lead-Lag Filter for Virtual Synchronous Machines with Improved Electromechanical Damping. , 2021, , .		3
236	Adaptive Virtual Inertia Synthesis via Enhanced Dispatchable Virtual Oscillator Controlled Grid-Tied Inverters. , 2021, , .		4

#	ARTICLE	IF	CITATIONS
237	Use of Battery Energy Storage Systems to Enhance the Frequency Stability of an Islanded Microgrid Based on Hybrid Photovoltaic-Diesel Generation. Lecture Notes in Networks and Systems, 2022, , 48-58.	0.5	3
238	Multiarea Inertia Estimation Using Convolutional Neural Networks and Federated Learning. IEEE Systems Journal, 2022, 16, 6401-6412.	2.9	13
240	Internal Induced Voltage Modification for Current Limitation in Virtual Synchronous Machine. Energies, 2022, 15, 901.	1.6	4
241	Virtual oscillator-based methods for grid-forming inverter control: A review. IET Renewable Power Generation, 2022, 16, 835-855.	1.7	15
242	The Role of Virtual Synchronous Machines in Future Power Systems: A Review and Future Trends. Electric Power Systems Research, 2022, 206, 107775.	2.1	14
243	Scheduling of battery energy storages in the joint energy and reserve markets based on the static frequency of power system. Journal of Energy Storage, 2022, 49, 104115.	3.9	9
244	Virtual synchronous generator: Modifications, stability assessment and future applications. Energy Reports, 2022, 8, 1704-1717.	2.5	17
245	Three-Phase Single-Stage Photovoltaic System With Synchronverter Control: Power System Simulation Studies. IEEE Access, 2022, 10, 23408-23424.	2.6	6
246	Grid Fault Current Injection Using Virtual Synchronous Machines Featuring Active Junction Temperature Limitation of Power Devices. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2022, 10, 6243-6251.	3.7	4
247	Analysis of Synthetic Inertia Strategies from Wind Turbines for Large System Stability. IEEE Transactions on Industry Applications, 2022, 58, 3184-3192.	3.3	10
248	Transient Stability and Active Protection of Power Systems With Grid-Forming PV Power Plants. IEEE Transactions on Power Systems, 2023, 38, 897-911.	4.6	6
249	A Fuzzy Logic-Based Emulated Inertia Control to a Supercapacitor System to Improve Inertia in a Low Inertia Grid with Renewables. Energies, 2022, 15, 1333.	1.6	11
250	Stability improvement of power system by cooperative virtual inertia control and reactive power control of PMSC wind generator and battery. Electrical Engineering in Japan (English Translation of) Tj ETQq0 0 0 rgB1/Overlap 10 Tf 5	0.1	0
251	Dual-Active-Bridge Model and Control for Supporting Fast Synthetic Inertial Action. Energies, 2022, 15, 2295.	1.6	3
252	Participation in Microgrid Frequency Regulation of Variable Speed Wind Generator based on DFIC using ADRC Control Method. , 2021, , .		0
253	Stability of power networks with time-varying inertia. , 2021, , .		2
254	Modified VSG Scheme for Secondary Frequency Regulation in Islanded Microgrid. , 2021, , .		3
255	Oscillatory spreading and inertia in power grids. Chaos, 2021, 31, 123103.	1.0	2

#	ARTICLE	IF	CITATIONS
256	A Review of Modern Virtual Inertia Control Strategies for Microgrid Implementation. , 2021, , .		0
257	Influence of high proportion of renewable energy on the inertia level of bulk power system. , 2021, , .		2
258	Performance of fast responding ultracapacitor energy storage for virtual inertia emulation control. Energy Storage, 2022, 4, .	2.3	7
259	Virtual Inertia Control Strategy for High Renewable Energy-Integrated Interconnected Power Systems. Lecture Notes in Electrical Engineering, 2022, , 346-364.	0.3	2
261	Frequency stability improvements based on automatic adjustment of synchronous power controller parameters. Electrical Engineering, 2022, 104, 3453-3463.	1.2	1
262	A Developed Frequency Control Strategy for Hybrid Two-Area Power System with Renewable Energy Sources Based on an Improved Social Network Search Algorithm. Mathematics, 2022, 10, 1584.	1.1	4
263	A comprehensive assessment of the state-of-the-art virtual synchronous generator models. Electric Power Systems Research, 2022, 209, 108054.	2.1	22
264	Optimal Controllers to Improve Transient Recovery of Grid-Following Inverters Connected to Weak Power Grids. IEEE Open Access Journal of Power and Energy, 2022, , 1-1.	2.5	2
265	Application of input shaping method to vibrations damping in a Type-IV wind turbine interfaced with a grid-forming converter. Electric Power Systems Research, 2022, 210, 108083.	2.1	7
266	An overview of inertia requirement in modern renewable energy sourced grid: challenges and way forward. Journal of Electrical Systems and Information Technology, 2022, 9, .	1.2	5
267	Implementation and Evaluation of a High-Performance Battery Converter System for Providing Synthetic Inertia at Distribution Network Level. , 2021, , .		1
268	Simultaneous Optimization of Virtual Synchronous Generators Parameters and Virtual Impedances in Islanded Microgrids. IEEE Transactions on Smart Grid, 2022, 13, 4202-4217.	6.2	13
269	Comparative Performance of Inverted-Based Generation using Synchonverter during Transient Stability Conditions. , 2022, , .		0
270	Virtual Synchronous Machine Control of RES Plants in Isolated Power Systems. Applied Sciences (Switzerland), 2022, 12, 5920.	1.3	2
271	Reinforcement Learning-based load shedding and intentional voltage manipulation approach in a microgrid considering load dynamics. IET Generation, Transmission and Distribution, 0, , .	1.4	2
272	Ancillary services and electric vehicles: An overview from charging clusters and chargers technology perspectives. Renewable and Sustainable Energy Reviews, 2022, 167, 112666.	8.2	32
273	A Study on Emulated Inertia Control of Grid-Connected Inverter-Based Power Supply Sources for Mass Integration of Renewable Energy Resources. , 2022, , .		2
274	Impact of Virtual Inertia on Stability Delay Margins of Micro grids with Communication Time Delay. , 2022, , .		0

#	ARTICLE	IF	CITATIONS
275	Frequency support of AC microgrid with high penetration of photovoltaic using super-capacitor. Sustainable Energy Technologies and Assessments, 2022, 53, 102364.	1.7	2
276	On-line inertia estimation of Virtual Power Plants. Electric Power Systems Research, 2022, 212, 108336.	2.1	12
277	Dynamic Forecasting of Solar Energy Microgrid Systems Using Feature Engineering. IEEE Transactions on Industry Applications, 2022, 58, 7857-7869.	3.3	13
278	Virtual Synchronous Generator Control of Multi-port Autonomous Reconfigurable Solar Plants (MARS). , 2022, , .		0
279	Evaluation of Inertial Response and Frequency Regulation in the Long-term Based on the Development Strategy of the Latvian Power System. , 2022, , .		8
280	Synergizing pico hydel and battery energy storage with adaptive synchronverter control for frequency regulation of autonomous microgrids. Applied Energy, 2022, 325, 119827.	5.1	3
281	A simulation study for assessing the impact of energy storage systems for Fast Reserve with additional synthetic inertia control on the Continental Europe synchronous area. Sustainable Energy Technologies and Assessments, 2022, 53, 102763.	1.7	0
282	Design of a maiden synthetic inertia controller using super-capacitor energy storages and electric vehicles and real-time validation of the performance of the controller. Journal of Energy Storage, 2022, 55, 105559.	3.9	1
283	Grid Strengthening IBR: An Inverter-Based Resource Enhanced by a Co-Located Synchronous Condenser for High Overcurrent Capability. IEEE Open Journal of Power Electronics, 2022, 3, 535-548.	4.0	4
284	High-Fidelity Model of Stand-Alone Diesel Electric Generator With Hybrid Turbine-Governor Configuration for Microgrid Studies. IEEE Access, 2022, 10, 110537-110547.	2.6	0
285	Overview of Inertia Enhancement Methods in DC System. Energies, 2022, 15, 6704.	1.6	3
287	Freely Customized virtual generator model for grid-forming converter with hydrogen energy storage. International Journal of Hydrogen Energy, 2022, 47, 34739-34761.	3.8	4
288	Optimal Power Management of Interconnected Microgrids Using Virtual Inertia Control Technique. Energies, 2022, 15, 7026.	1.6	7
289	A Review on Voltage and Frequency Contingencies Mitigation Technologies in a Grid with Renewable Energy Integration. Journal of the Institution of Engineers (India): Series B, 2022, 103, 2195-2205.	1.3	5
290	Enhancement of Stability Region by Virtual Inertia and Damping Control for Micro-Grids with Communication Time Delay. Iranian Journal of Science and Technology - Transactions of Electrical Engineering, 2023, 47, 177-191.	1.5	1
291	RPC-based frequency control strategy of LCC-HVDC sending end power system with renewable energy. Frontiers in Energy Research, 0, 10, .	1.2	0
292	Bifurcation Stability Analysis of the Synchronverter in a Microgrid. Energies, 2022, 15, 7992.	1.6	0
293	Inertia Estimation of Synchronous Devices: Review of Available Techniques and Comparative Assessment of Conventional Measurement-Based Approaches. Energies, 2022, 15, 7767.	1.6	8

#	ARTICLE	IF	CITATIONS
294	Stability Improvement of Power System with a Wind Farm by the Virtual Synchronous Generator Control of Battery. IEEJ Transactions on Power and Energy, 2022, 142, 542-551.	0.1	0
295	Flexibility of variable-speed pumped-storage unit during primary frequency control and corresponding assessment method. International Journal of Electrical Power and Energy Systems, 2023, 145, 108691.	3.3	5
296	A Voltage Sensitivity Based Equivalent for Active Distribution Networks Containing Grid Forming Converters. IEEE Transactions on Smart Grid, 2023, 14, 2825-2836.	6.2	3
297	Ancillary Services and Risk Assessment of Networked Microgrids Using Digital Twin. IEEE Transactions on Power Systems, 2023, 38, 4542-4558.	4.6	5
298	Estimation of inertia in power grids with turbine governors. , 2022, , .		1
299	Estrategias de Control de Microrredes en CA: Una Revisi3n Breve. , 2022, , .		1
300	Flexible Power Point Tracking Using a Neural Network for Power Reserve Control in a Grid-Connected PV System. Energies, 2022, 15, 8234.	1.6	4
301	A Comprehensive Review on a Virtual-Synchronous Generator: Topologies, Control Orders and Techniques, Energy Storages, and Applications. Energies, 2022, 15, 8406.	1.6	24
302	A novel virtual admittance droop based inertial coordination control for medium-voltage direct current ship with hybrid energy storage. Journal of Energy Storage, 2022, 56, 105962.	3.9	2
303	Improving Virtual Synchronous Generator Control in Microgrids Using Fuzzy Logic Control. , 2022, , .		5
304	Virtual Inertia Support in Power Systems for High Penetration of Renewables“ Overview of Categorization, Comparison, and Evaluation of Control Techniques. IEEE Access, 2022, 10, 129190-129216.	2.6	10
305	A Comprehensive Decomposition Based Hierarchical Heuristic Control of Multimicrogrids. IEEE Access, 2022, 10, 131611-131626.	2.6	1
306	General Method to Foresee the Behavior of Virtual Synchronous Machines Working With Distorted and Unbalanced Voltage Conditions. IEEE Transactions on Industrial Electronics, 2023, 70, 9709-9719.	5.2	1
307	Market Mechanism Design of Inertia and Primary Frequency Response With Consideration of Energy Market. IEEE Transactions on Power Systems, 2023, 38, 5701-5713.	4.6	3
308	Promising Grid-Forming VSC Control Schemes Toward Sustainable Power Systems: Comprehensive Review and Perspectives. IEEE Access, 2022, 10, 130024-130039.	2.6	4
309	Frequency-Control-Aware Probabilistic Load Flow: An Analytical Method. IEEE Transactions on Power Systems, 2023, 38, 5170-5187.	4.6	0
310	Non-synchronous Inertia Estimation in a Renewable Energy Integrated Power System With Reduced Number of Monitoring Nodes. IEEE Transactions on Sustainable Energy, 2023, 14, 864-875.	5.9	5
311	Dead-Time Effect on Two-Level Voltage Source Virtual Synchronous Machines. , 2022, , .		1

#	ARTICLE	IF	CITATIONS
312	Adaptive Virtual Inertia Calculation for a Virtual Synchronous Generator-Based Building-to-Building Grid. , 2022, , .		3
313	Artificial Intelligence-Based Controller for Grid-Forming Inverter-Based Generators. , 2022, , .		3
314	An Online Archimedes Optimization Algorithm Identifier-Controlled Adaptive Modified Virtual Inertia Control for Microgrids. Energies, 2022, 15, 8884.	1.6	0
315	Design of a new control method for dynamic control of the two-area microgrid. Soft Computing, 0, , .	2.1	2
316	Improving frequency response for AC interconnected microgrids containing renewable energy resources. Frontiers in Energy Research, 0, 10, .	1.2	1
317	A Predictive Control Scheme for a Single-Phase Grid-Supporting Quasi-Z-Source Inverter and Its Integration With a Frequency Support Strategy. IEEE Access, 2023, 11, 5337-5351.	2.6	6
318	Adaptive Virtual Inertia Control for Stable Microgrid Operation Including Ancillary Services Support. IEEE Transactions on Control Systems Technology, 2023, 31, 1552-1564.	3.2	5
319	Assessing the Role of Energy Storage in Multiple Energy Carriers toward Providing Ancillary Services: A Review. Energies, 2023, 16, 379.	1.6	6
320	Improved Virtual Inertia Damping Adaptive VDG Control Strategy for DC Microgrid Hybrid Energy Storage Converter. , 2022, , .		1
321	Emulated Inertia Control of Grid-connected Inverter-based Power Supply Sources for Mass Integration of Renewable Energy Resources. IEEJ Journal of Industry Applications, 2023, , .	0.9	1
322	Virtual Synchronous Generator Based Transient Stability Analysis of Microgrid: A Review. , 2022, , .		1
323	AI-Based Technique to Enhance Transient Response and Resiliency of Power Electronic Dominated Grids via Grid-Following Inverters. IEEE Transactions on Industrial Electronics, 2024, 71, 2614-2625.	5.2	6
324	Frequency Stability of a Wind-based Energy System by Virtual Inertia Controller of an Inverter Connected to Grid. IETE Journal of Research, 0, , 1-16.	1.8	0
325	Adaptive control of V2Gs in islanded microgrids incorporating EV owner expectations. Applied Energy, 2023, 341, 121118.	5.1	4
326	The Effect of Virtual Inertia and Damping Control on the Stability Region of Load Frequency Control Systems with Time Delays. Electric Power Components and Systems, 2023, 51, 438-451.	1.0	2
327	Optimal power flow-based reactive power control in smart distribution network using real-time cyber-physical co-simulation framework. IET Generation, Transmission and Distribution, 2023, 17, 4489-4502.	1.4	5
328	Transient Stability Analysis and Enhancement Techniques of Renewable-Rich Power Grids. Energies, 2023, 16, 2495.	1.6	2
329	Small Signal Stability Analysis of Dispatchable Virtual Oscillator Controlled Inverters with Adaptive Virtual Inertia Control. , 2023, , .		3

#	ARTICLE	IF	CITATIONS
330	Adaptive Virtual Inertia and Damping for Frequency Stability Enhancement using A Seamless Compensator. , 2023, , .		1
331	Overview of Measures for Low Inertia Power System Due to Large-scale Introduction of Renewable Energies. Journal of the Institute of Electrical Engineers of Japan, 2023, 143, 188-191.	0.0	1
332	Energy Storage and Geographical Distribution of Wind Power to Improve Frequency Stability. , 2023, , .		2
333	Real-Time Simulation, Modelling, and Control of Low Inertial Microgrids. , 2023, , .		0
334	A Review of Voltage and Frequency Control for Inverter-Based Islanded Microgrids. , 2023, , .		2
335	Hierarchical Stochastic Frequency Constrained Micro-Market Model for Isolated Microgrids. IEEE Transactions on Smart Grid, 2024, 15, 5-18.	6.2	2
336	Generator Aggregation and Power Grid Stability. , 2023, , .		0
337	Grid-forming VSM control for black-start applications with experimental PHiL validation. International Journal of Electrical Power and Energy Systems, 2023, 151, 109119.	3.3	2
338	Frequency control by the PV station in electric power systems with hydrogen energy storage. International Journal of Hydrogen Energy, 2023, 48, 28262-28276.	3.8	4
340	Supercapacitor Based Energy Storage System to Improve Integration of Variable Renewable Energies in Electric Grids. Green Energy and Technology, 2023, , 57-71.	0.4	0
341	Grid-Forming Converter Control Techniques Implementation in Typhoon HIL. Transactions on Computer Systems and Networks, 2023, , 51-74.	0.5	0
345	Improving Transients for Droop-Controlled Inverters. , 2023, , .		0
350	Real-Time Price-Based Optimal Energy Mix in Smart Distribution Network. Lecture Notes in Electrical Engineering, 2023, , 211-225.	0.3	0
356	Virtual Power Injection for Optimal Adjustment of Droop-Controlled Inverters. , 2023, , .		0
360	Design of an Optimal PI Controller for Time-Delayed Two-Area LFC-VID System. , 2023, , .		1
365	Stability Assessment in Power Systems with High Penetration of Converter-based Generation. , 2023, , .		0
367	Online Inertia Estimation of Power Systems Based on Transient Phasor Data with Weighted Least Squares Method. , 2023, , .		1
368	Virtual power circle based PQ decoupling technique for a virtual synchronous generator connected to a weak grid. , 2023, , .		1

#	ARTICLE	IF	CITATIONS
375	An Optimal Non-integer Controller-Based Virtual Inertia Support for Frequency Control in Hybrid Microgrid. Lecture Notes in Networks and Systems, 2023, , 33-41.	0.5	1
377	Research on Virtual Inertia Control of Photovoltaic Power Generation Grid-Connected Systems. , 2023, , .		0
378	Load Frequency Control of Multi-Area Renewable Energy Micro-Grid System. , 2023, , .		0
379	Optimal Inverter-Based Resources Placement in Low-Inertia Power Systems. , 2023, , .		0
380	On-line Inertia Estimation in Presence of Distributed Energy Resources. , 2023, , .		0
381	Design and experimental verification of advanced control strategies to provide ancillary services with a bidirectional Vehicle-to-Grid (V2G) inverter. , 2023, , .		0
385	A Multi Degree of Freedom Based Hybrid Fractional Order Controllers for Load Frequency Control in Hybrid Systems. , 2023, , 736-750.		0
386	Grid-Forming Converter and Stability Aspects of Renewable-Based Low-Inertia Power Networks: Modern Trends and Challenges. Arabian Journal for Science and Engineering, 0, , .	1.7	0
388	Frequency Response of Grid-Forming and Following Inverters-Based Microgrid Supplied by Onshore Electrified Ships. , 2023, , .		0
389	Droop Control of Wind Turbines to Provide Upward Support in Frequency Regulation. , 2023, , .		0
390	A Comparison of Control Strategies for Inverter-Dominated Power Systems. , 2023, , .		0
391	Adaptive Droop Controller for Energy Management of Islanded AC Microgrids. , 2023, , .		0
393	Improving Frequency Regulation for Future Low Inertia Power Grids with Increased Penetration of Variable Generation: A Review. , 2023, , .		0
398	Operational Analysis of a Power Electronic Converter as a Virtual Synchronous Machine. , 2023, , .		0
399	Low-Frequency Passivity Characterization of Grid-Forming Inverter. , 2023, , .		0
402	Stability Analysis of a 15 MW Wind Energy Conversion System with Frequency Control Support Connected to an Isolated Microgrid System. , 2023, , .		0
403	Interval Type-2 Fuzzy logic virtual inertia control. , 2023, , .		0
404	Synchronverter as Control Strategy of Grid-Forming Inverter. , 2023, , .		0

#	ARTICLE	IF	CITATIONS
406	Enhancing the Stability of a Power System Integrated with Large-Scale Photovoltaic Plants by Improving the Transient Response Using Virtual Inertia. , 2023, , .		0