

Kevin L Tomsovic

List of Publications by Year in descending order

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125
papers

5,155
citations

94433

37
h-index

98798

67
g-index

125
all docs

125
docs citations

125
times ranked

3670
citing authors

#	ARTICLE	IF	CITATIONS
1	Development of models for analyzing the load-following performance of microturbines and fuel cells. <i>Electric Power Systems Research</i> , 2002, 62, 1-11.	3.6	397
2	Bidding Strategy for Microgrid in Day-Ahead Market Based on Hybrid Stochastic/Robust Optimization. <i>IEEE Transactions on Smart Grid</i> , 2016, 7, 227-237.	9.0	363
3	Application of Linear Matrix Inequalities for Load Frequency Control With Communication Delays. <i>IEEE Transactions on Power Systems</i> , 2004, 19, 1508-1515.	6.5	290
4	Adaptive power flow method for distribution systems with dispersed generation. <i>IEEE Transactions on Power Delivery</i> , 2002, 17, 822-827.	4.3	199
5	Overview and literature survey of fuzzy set theory in power systems. <i>IEEE Transactions on Power Systems</i> , 1995, 10, 1676-1690.	6.5	178
6	An Expert System Assisting Decision-Making of Reactive Power/Voltage Control. <i>IEEE Transactions on Power Systems</i> , 1986, 1, 195-201.	6.5	167
7	Communication Models for Third Party Load Frequency Control. <i>IEEE Transactions on Power Systems</i> , 2004, 19, 543-548.	6.5	156
8	A fuzzy linear programming approach to the reactive power/voltage control problem. <i>IEEE Transactions on Power Systems</i> , 1992, 7, 287-293.	6.5	148
9	Quantifying Spinning Reserve in Systems With Significant Wind Power Penetration. <i>IEEE Transactions on Power Systems</i> , 2012, 27, 2385-2393.	6.5	130
10	Optimal use of incentive and price based demand response to reduce costs and price volatility. <i>Electric Power Systems Research</i> , 2017, 144, 215-223.	3.6	124
11	A fuzzy information approach to integrating different transformer diagnostic methods. <i>IEEE Transactions on Power Delivery</i> , 1993, 8, 1638-1646.	4.3	102
12	A Novel Active Power Control Framework for Wind Turbine Generators to Improve Frequency Response. <i>IEEE Transactions on Power Systems</i> , 2018, 33, 6579-6589.	6.5	97
13	An Expert System as a Dispatchers' Aid for the Isolation of Line Section Faults. <i>IEEE Transactions on Power Delivery</i> , 1987, 2, 736-743.	4.3	95
14	Robust optimisation-based microgrid scheduling with islanding constraints. <i>IET Generation, Transmission and Distribution</i> , 2017, 11, 1820-1828.	2.5	91
15	Distributed energy management for community microgrids considering network operational constraints and building thermal dynamics. <i>Applied Energy</i> , 2019, 239, 83-95.	10.1	90
16	Boundary Load Flow Solutions. <i>IEEE Transactions on Power Systems</i> , 2004, 19, 348-355.	6.5	88
17	Microgrid optimal scheduling with chance-constrained islanding capability. <i>Electric Power Systems Research</i> , 2017, 145, 197-206.	3.6	86
18	Evaluation of residential customer elasticity for incentive based demand response programs. <i>Electric Power Systems Research</i> , 2018, 158, 26-36.	3.6	85

#	ARTICLE	IF	CITATIONS
19	Design and analysis of an adaptive fuzzy power system stabilizer. IEEE Transactions on Energy Conversion, 1996, 11, 455-461.	5.2	84
20	Congestion influence on bidding strategies in an electricity market. IEEE Transactions on Power Systems, 2003, 18, 1054-1061.	6.5	83
21	Two-Stage Residential Energy Management Considering Network Operational Constraints. IEEE Transactions on Smart Grid, 2013, 4, 2339-2346.	9.0	81
22	Three-Phase Power Converter-Based Real-Time Synchronous Generator Emulation. IEEE Transactions on Power Electronics, 2017, 32, 1651-1665.	7.9	81
23	A full demand response model in co-optimized energy and reserve market. Electric Power Systems Research, 2014, 111, 62-70.	3.6	78
24	Static and dynamic power system load emulation in a converter-based reconfigurable power grid emulator. IEEE Transactions on Power Electronics, 2016, 31, 3239-3251.	7.9	77
25	Optimal distribution power flow for systems with distributed energy resources. International Journal of Electrical Power and Energy Systems, 2007, 29, 260-267.	5.5	76
26	Application of wide area measurement systems to islanding detection of bulk power systems. IEEE Transactions on Power Systems, 2013, 28, 2006-2015.	6.5	75
27	Optimized distribution protection using binary programming. IEEE Transactions on Power Delivery, 1998, 13, 218-224.	4.3	68
28	Discovering price-load relationships in California's electricity market. IEEE Transactions on Power Systems, 2001, 16, 280-286.	6.5	66
29	Fast Frequency Support From Wind Turbine Generators With Auxiliary Dynamic Demand Control. IEEE Transactions on Power Systems, 2019, 34, 3340-3348.	6.5	57
30	Virtual Actuators for Wide-Area Damping Control of Power Systems. IEEE Transactions on Power Systems, 2016, 31, 4703-4711.	6.5	54
31	Security Constrained Multi-Stage Transmission Expansion Planning Considering a Continuously Variable Series Reactor. IEEE Transactions on Power Systems, 2017, 32, 4442-4450.	6.5	53
32	The Role of Digital Modeling and Simulation in Power Engineering Education. IEEE Transactions on Power Systems, 2004, 19, 64-72.	6.5	50
33	Robust unit commitment considering uncertain demand response. Electric Power Systems Research, 2015, 119, 126-137.	3.6	47
34	Optimal Allocation of Series FACTS Devices Under High Penetration of Wind Power Within a Market Environment. IEEE Transactions on Power Systems, 2018, 33, 6206-6217.	6.5	45
35	Distributed Automatic Generation Control Using Flatness-Based Approach for High Penetration of Wind Generation. IEEE Transactions on Power Systems, 2013, 28, 3002-3009.	6.5	44
36	Dynamic Control Allocation for Damping of Inter-Area Oscillations. IEEE Transactions on Power Systems, 2017, 32, 4894-4903.	6.5	42

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37	Provision for Guaranteed Inertial Response in Diesel-Wind Systems via Model Reference Control. IEEE Transactions on Power Systems, 2018, 33, 6557-6568.	6.5	42
38	Optimal trade-offs in distribution protection design. IEEE Transactions on Power Delivery, 2001, 16, 292-296.	4.3	39
39	Robust, near time-optimal control of power system oscillations with fuzzy logic. IEEE Transactions on Power Delivery, 1996, 11, 393-400.	4.3	38
40	Feasibility of a bilateral market for load following. IEEE Transactions on Power Systems, 2001, 16, 782-787.	6.5	38
41	Optimal allocation of distribution maintenance resources with limited information. Electric Power Systems Research, 2004, 68, 208-220.	3.6	38
42	A Directed Graph Formulation of the Multistage Distribution Expansion Problem. IEEE Transactions on Power Delivery, 2004, 19, 1335-1341.	4.3	37
43	Development of converter based reconfigurable power grid emulator. , 2014, , .		37
44	Hybrid Controller for Wind Turbine Generators to Ensure Adequate Frequency Response in Power Networks. IEEE Journal on Emerging and Selected Topics in Circuits and Systems, 2017, 7, 359-370.	3.6	34
45	Hybrid Symbolic-Numeric Framework for Power System Modeling and Analysis. IEEE Transactions on Power Systems, 2021, 36, 1373-1384.	6.5	30
46	Hardware implementation and control design of generator emulator in multi-converter system. , 2013, , .		27
47	Resilient distribution system leveraging distributed generation and microgrids: a review. IET Energy Systems Integration, 2020, 2, 289-304.	1.8	27
48	Reconfigurable Real-Time Power Grid Emulator for Systems With High Penetration of Renewables. IEEE Open Access Journal of Power and Energy, 2020, 7, 489-500.	3.4	26
49	Cyber-physical system testbed for power system monitoring and wide-area control verification. IET Energy Systems Integration, 2020, 2, 32-39.	1.8	24
50	Coordinated distribution network control of tap changer transformers, capacitors and PV inverters. Electrical Engineering, 2018, 100, 1133-1146.	2.0	23
51	Distributed energy management for community microgrids considering phase balancing and peak shaving. IET Generation, Transmission and Distribution, 2019, 13, 1612-1620.	2.5	23
52	Set Theory-Based Safety Supervisory Control for Wind Turbines to Ensure Adequate Frequency Response. IEEE Transactions on Power Systems, 2019, 34, 680-692.	6.5	23
53	Measuring the volatility of wholesale electricity prices caused by wind power uncertainty with a correlation model. IET Renewable Power Generation, 2012, 6, 315-323.	3.1	22
54	Robust Microgrid Scheduling With Resiliency Considerations. IEEE Access, 2020, 8, 153169-153182.	4.2	22

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55	An interdisciplinary approach to long-term modelling for power system expansion. International Journal of Critical Infrastructures, 2007, 3, 235.	0.2	21
56	A MILP-based distribution optimal power flow model for microgrid operation. , 2016, , .		21
57	Optimal distribution protection design: quality of solution and computational analysis. International Journal of Electrical Power and Energy Systems, 1999, 21, 327-335.	5.5	20
58	A Large-Scale Testbed as a Virtual Power Grid: For Closed-Loop Controls in Research and Testing. IEEE Power and Energy Magazine, 2020, 18, 60-68.	1.6	20
59	Numerical Analyses of a Directed Graph Formulation of the Multistage Distribution Expansion Problem. IEEE Transactions on Power Delivery, 2004, 19, 1348-1354.	4.3	18
60	Slack bus treatment in load flow solutions with uncertain nodal powers. International Journal of Electrical Power and Energy Systems, 2005, 27, 614-619.	5.5	18
61	Application of distributed control to mitigate disturbance propagations in large power networks. , 2015, , .		18
62	Optimal allocation of series FACTS devices in large-scale systems. IET Generation, Transmission and Distribution, 2018, 12, 1889-1896.	2.5	18
63	Profit-Oriented False Data Injection on Electricity Market: Reviews, Analyses, and Insights. IEEE Transactions on Industrial Informatics, 2021, 17, 5876-5886.	11.3	18
64	Two-Level Control of Doubly Fed Induction Generator Using Flatness-Based Approach. IEEE Transactions on Power Systems, 2016, 31, 518-525.	6.5	17
65	Distribution system voltage regulation by distributed energy resources. , 2014, , .		16
66	Examination of incentive based demand response in western connection reduced model. , 2015, , .		15
67	Robust Scheduling of Networked Microgrids for Economics and Resilience Improvement. Energies, 2022, 15, 2249.	3.1	14
68	Stability analysis of inverter based generator emulator in test-bed for power systems. , 2013, , .		13
69	Wide Area Hierarchical Voltage Control to Improve Security Margin for Systems With High Wind Penetration. IEEE Transactions on Power Systems, 2018, 33, 6218-6228.	6.5	12
70	Stability analysis of a class of switched nonlinear systems using the time scale theory. Nonlinear Analysis: Hybrid Systems, 2019, 33, 195-210.	3.5	12
71	Filling the Pipeline: Power System and Energy Curricula for Middle and High School Students Through Summer Programs. IEEE Transactions on Power Systems, 2014, 29, 1874-1879.	6.5	10
72	Study of flatness-based Automatic Generation Control Approach on an NPCC system model. , 2015, , .		10

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73	Guest Editorial: New Trends in Wide-Area Monitoring and Control of Power Systems with Large Scale Renewables. IET Generation, Transmission and Distribution, 2017, 11, 4403-4405.	2.5	10
74	Battery energy storage scheduling for optimal load variance minimization. , 2018, , .		10
75	Optimal investment on series FACTS device considering contingencies. , 2016, , .		9
76	Implementation and testing of remedial action schemes for real-time transient stability studies. , 2017, , .		9
77	Community Microgrid Scheduling Considering Network Operational Constraints and Building Thermal Dynamics. Energies, 2017, 10, 1554.	3.1	9
78	Synthesizing Distributed Energy Resources in Microgrids with Temporal Logic Specifications. , 2018, , .		9
79	Robust Output Feedback Control Design for Inertia Emulation by Wind Turbine Generators. IEEE Transactions on Power Systems, 2021, 36, 5056-5067.	6.5	9
80	Optimal voltage regulation for unbalanced distribution networks considering distributed energy resources. , 2015, , .		8
81	A distributed control design methodology for damping critical modes in power systems. , 2016, , .		8
82	Power system supplementary damping controllers in the presence of saturation. , 2017, , .		8
83	Community microgrid scheduling considering building thermal dynamics. , 2017, , .		8
84	Quantifying the synthetic inertia and load-damping effect of a converter-interfaced power source. , 2018, , .		8
85	Stability of Wide-Area Power System Controls With Intermittent Information Transmission. IEEE Transactions on Power Systems, 2019, 34, 3494-3503.	6.5	8
86	Review on set-theoretic methods for safety verification and control of power system. IET Energy Systems Integration, 2020, 2, 226-234.	1.8	8
87	A dwell time approach for the stabilization of mixed Continuous/Discrete switched systems. Automatica, 2022, 142, 110386.	5.0	8
88	Topology error identification using a two-stage DC state estimator. Electric Power Systems Research, 2005, 74, 167-175.	3.6	7
89	A new linearization method of unbalanced electrical distribution networks. , 2014, , .		7
90	Parallel harmony search based distributed energy resource optimization. , 2015, , .		7

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91	Wind turbine generator modeling considerations for stability studies of weak systems. , 2017, , .		7
92	Integrating research results into a power engineering curriculum. IEEE Transactions on Power Systems, 1999, 14, 404-411.	6.5	6
93	Event analysis of pulse-reclosers in distribution systems through sparse representation. , 2017, , .		6
94	Oscillation energy based sensitivity analysis and control for multi-mode oscillation systems. , 2018, , .		6
95	A New Distributed Optimization for Community Microgrids Scheduling. , 2017, , .		6
96	Flocking generators: A PdE framework for stability of smart grids with communications. , 2012, , .		5
97	A robust load shedding strategy for microgrid islanding transition. , 2016, , .		5
98	Disturbance Propagation in Power Grids With High Converter Penetration. Proceedings of the IEEE, 2023, 111, 873-890.	21.3	5
99	Bounding the computation time of forward-chaining rule-based systems. Data and Knowledge Engineering, 1993, 10, 317-334.	3.4	4
100	Real-Time Transient Instability Detection Based on Decision Trees. , 2009, , .		4
101	Prediction of critical load levels for AC optimal power flow dispatch model. International Journal of Electrical Power and Energy Systems, 2012, 42, 635-643.	5.5	4
102	Impact of Incentive Based Demand Response on large scale renewable integration. , 2016, , .		4
103	Control allocation for wide area coordinated damping. , 2017, , .		4
104	Networked Microgrids for Improving Economics and Resiliency. , 2018, , .		4
105	Model Enhancements for Real- Time Transient Stability Assessment in Western Interconnection. , 2018, , .		4
106	Model predictive control for voltage restoration in microgrids using temporal logic specifications. IET Energy Systems Integration, 2020, 2, 207-214.	1.8	4
107	Current Status of Fuzzy Set Theory Applications to Power Systems. IEEJ Transactions on Power and Energy, 1993, 113, 2-6.	0.2	3
108	A regression based hourly day ahead solar irradiance forecasting model by labview using cloud cover data. , 2015, , .		3

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109	Measurement-based models for wide-area control design in the future power grid. , 2016, , .		3
110	A Study of Magnetic Amplifier-based Power Flow Controller for Power System Stability Improvement. Electric Power Components and Systems, 2016, 44, 966-973.	1.8	3
111	Advanced Energy Storage Management in Distribution Network. , 2016, , .		3
112	Conservation Voltage Reduction in Secondary Distribution Networks with Distributed Generation and Electric Vehicle Charging Loads. , 2018, , .		3
113	Secondary Voltage Control Via Demand-Side Energy Storage with Temporal Logic Specifications. , 2019, , .		3
114	Microgrid Assisted Design for Remote Areas. Energies, 2022, 15, 3725.	3.1	3
115	Closure on "adaptive power flow method for distribution systems with dispersed generation". IEEE Transactions on Power Delivery, 2003, 18, 648-648.	4.3	2
116	Optimal reactive power allocation for photovoltaic inverters to limit transformer tap changes. , 2016, , .		2
117	Quantitative Control Approach for Wind Turbine Generators to Provide Fast Frequency Response with Guarantee of Rotor Security. , 2018, , .		2
118	Robust Scheduling of Microgrids With Resiliency Constraints. , 2019, , .		2
119	Stabilization of Switched Systems on Non-Uniform Time Domain with Dwell Time. , 2019, , .		2
120	Stability of Nonlinear Switched Systems on Non-uniform Time Domains with Application to Multi-Agents Consensus. , 2020, , .		2
121	Optimal sizing of energy storage for community microgrids considering building thermal dynamics. , 2017, , .		1
122	Inertia Emulation Control using Demand Response via 5G Communications. , 2021, , .		1
123	Robust Microgrid Scheduling Considering Unintentional Islanding Conditions. IEEE Access, 2022, 10, 48836-48848.	4.2	1
124	CXSparse-Based Differential Algebraic Equation Framework for Power System Simulation. , 2018, , .		0
125	Power <sc>electronicsâ€interfaced cyberâ€physical</sc> power systems: A review on modeling, simulation, and cybersecurity. Wiley Interdisciplinary Reviews: Energy and Environment, 2022, 11, .	4.1	0