Karen L Butler-Purry

List of Publications by Year
in descending order

87 papers	2,278 citations	304743 22 h-index	345221 36 g-index
88 all docs	88 docs citations	88 times ranked	2153 citing authors

#	Article	IF	Citations
1	An Examination of the Paths of Successful Diverse STEM Faculty: Insight for Programming. Frontiers in Education, 2022, 7, .	2.1	1
2	Teaching Digital Circuit Design With a 3-D Video Game: The Impact of Using In-Game Tools on Students' Performance. IEEE Transactions on Education, 2021, 64, 24-31.	2.4	10
3	Linear power flow formulations and optimal operation of three-phase autonomous droop-controlled Microgrids. Electric Power Systems Research, 2021, 196, 107231.	3.6	13
4	Dynamic Modeling of Sequential Service Restoration in Islanded Single Master Microgrids. IEEE Transactions on Power Systems, 2020, 35, 202-214.	6.5	31
5	Black Start Restoration of Islanded Droop-Controlled Microgrids. Energies, 2020, 13, 5996.	3.1	9
6	Minority Student Preparation for STEM PhD Study: Impact of NSF Bridge to the Doctorate Programming. International Journal of Technology in Education and Science, 2020, 4, 168-187.	1.0	4
7	Secure transmission line distance protection during wide area cascading events using artificial intelligence. Electric Power Systems Research, 2019, 175, 105914.	3.6	2
8	Investigation of Approaches for Incorporating Smart Meter Data in Load and PV Models in Medium Voltage Power System Studies. , 2019, , .		2
9	Modeling Single-Phase PQ Inverter for Unbalanced Power Dispatch in Islanded Microgrid. , 2019, , .		3
10	Transforming doctoral education: preparing multidimensional and adaptive scholars. Studies in Graduate and Postdoctoral Education, 2019, 11, 17-34.	1.5	9
11	Dynamic Simulation of Distribution Systems and Microgrids for Reconfiguration Studies using PSCAD/EMTDC. , 2019, , .		0
12	Active and Reactive Power Sharing in Inverter Based Droop-Controlled Microgrids. , 2019, , .		1
13	Innovative Professional Development and Community Building Activity Program Improves STEM URM Graduate Student Experiences. International Journal of STEM Education, 2019, 6, .	5.0	18
14	Sequential service restoration in distribution systems and microgrids integrating frequency response and varying switching interval. , 2018, , .		6
15	Multi-Time Step Service Restoration for Advanced Distribution Systems and Microgrids. IEEE Transactions on Smart Grid, 2018, 9, 6793-6805.	9.0	168
16	Sequential Service Restoration for Unbalanced Distribution Systems and Microgrids. IEEE Transactions on Power Systems, 2018, 33, 1507-1520.	6.5	227
17	Real-time electric load management for DC zonal all-electric ship power systems. Electric Power Systems Research, 2018, 154, 503-514.	3.6	24
18	Distance protection zone 3 misoperation during system wide cascading events: The problem and a survey of solutions. Electric Power Systems Research, 2018, 154, 151-159.	3.6	22

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19	Security and Reliability Perspectives in Cyber-Physical Smart Grids. , 2018, , .		25
20	Investigations of Voltage/Reactive Power Sensitivity for Voltage Control and Voltage Stability in Unbalanced Distribution Systems. , 2018, , .		0
21	Implementation of wide area control in a real-time cyber-physical power system test bed. , 2017, , .		4
22	A novel deterministic and probabilistic dynamic security assessment approach for isolated microgrids. , 2017, , .		1
23	Multi-time Scale Coordination of Distributed Energy Resources in Isolated Power Systems. IEEE Transactions on Smart Grid, 2016, , 1-1.	9.0	22
24	An Integrated Security-Constrained Model-Based Dynamic Power Management Approach for Isolated Microgrids in All-Electric Ships. IEEE Transactions on Power Systems, 2015, 30, 2934-2945.	6.5	38
25	Implementing attacks for modbus/TCP protocol in a real-time cyber physical system test bed. , 2015, , .		61
26	A Multi-Agent System Framework for Real-Time Electric Load Management in MVAC All-Electric Ship Power Systems. IEEE Transactions on Power Systems, 2015, 30, 1327-1336.	6.5	62
27	A Novel Bio-Inspired Technique for Rapid Real-Time Generator Coherency Identification. IEEE Transactions on Smart Grid, 2015, 6, 178-188.	9.0	31
28	A Flocking-Based Paradigm for Hierarchical Cyber-Physical Smart Grid Modeling and Control. IEEE Transactions on Smart Grid, 2014, 5, 2687-2700.	9.0	71
29	Network delay caused by cyber attacks on SVC and its impact on transient stability of smart grids. , 2014, , .		13
30	Investigation of voltage stability in three-phase unbalanced distribution systems with DG using modal analysis technique. , 2014, , .		3
31	Investigation of voltage stability in unbalanced distribution systems with DG using three-phase current injection based CPF. , 2014, , .		8
32	Performance evaluation of flocking-based distributed cyber-physical control for Smart Grid. , 2014, , .		5
33	Implementing a real-time cyber-physical system test bed in RTDS and OPNET. , 2014, , .		53
34	Investigation of reactive power limit induced voltage collapse. , 2014, , .		0
35	Performance of flocking-based control schemes in smart grid applications. , 2014, , .		3
36	A Coordinated Multi-Switch Attack for Cascading Failures in Smart Grid. IEEE Transactions on Smart Grid, 2014, 5, 1183-1195.	9.0	94

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37	Practical limitations of sliding-mode switching attacks on smart grid systems. , 2014, , .		15
38	Foreword for the Special Section on Power and Energy Education. IEEE Transactions on Power Systems, 2014, 29, 1871-1873.	6.5	3
39	Potential Power Quality Benefits of Electric Vehicles. IEEE Transactions on Sustainable Energy, 2013, PP, 1-8.	8.8	71
40	Zonal overcurrent protection for smart radial distribution systems with distributed generation. , 2013, , .		8
41	Dynamic Model Predictive-Based Energy Management of DG Integrated Distribution Systems. IEEE Transactions on Power Delivery, 2013, 28, 2217-2227.	4.3	64
42	Progressive switching attacks for instigating cascading failures in smart grid. , 2013, , .		1
43	Induction Motor Starting in Islanded Microgrids. IEEE Transactions on Smart Grid, 2013, 4, 1323-1331.	9.0	31
44	A Framework for Modeling Cyber-Physical Switching Attacks in Smart Grid. IEEE Transactions on Emerging Topics in Computing, 2013, 1, 273-285.	4.6	100
45	Dynamic Reactive Power Control of Islanded Microgrids. IEEE Transactions on Power Systems, 2013, 28, 3649-3657.	6.5	54
46	Reactive Power Coordination of Shipboard Power Systems in Presence of Pulsed Loads. IEEE Transactions on Power Systems, 2013, 28, 3675-3682.	6.5	39
47	Impact analysis of transient stability due to cyber attack on FACTS devices. , 2013, , .		18
48	Impact of cyber attacks on transient stability of smart grids with voltage support devices. , 2013, , .		54
49	Assessing the dynamic secure region for an all-electric ship model. , 2012, , .		3
50	Real-time wide area power control studies using PXI and RTDS. , 2012, , .		1
51	Transient operational constraints in power system optimization problems. , 2012, , .		2
52	Multi-Agent System-Based Real-Time Load Management for All-Electric Ship Power Systems in DC Zone Level. IEEE Transactions on Power Systems, 2012, 27, 1719-1728.	6.5	57
53	Probing the telltale physics: Towards a cyber-physical protocol to mitigate information corruption in smart grid systems. , 2012, , .		8
54	Overcurrent Protection for the IEEE 34-Node Radial Test Feeder. IEEE Transactions on Power Delivery, 2012, 27, 459-468.	4.3	36

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55	A flocking-based dynamical systems paradigm for smart power system analysis. , 2012, , .		14
56	Optimal control of distributed energy resources using model predictive control. , 2012, , .		39
57	Using smart meter data to improve the performance of overcurrent protective devices in distribution systems with DG. , 2012, , .		6
58	Coordinated variable structure switching attack in the presence of model error and state estimation. , 2012, , .		15
59	A smart grid vulnerability analysis framework for coordinated variable structure switching attacks. , 2012, , .		14
60	A PC-based test bed for NG IPS for ships in PSCAD&#x2122;. , 2011, , .		3
61	Analysis of various partitioning strategies for multi-agent system-based real-time load management for NG IPs ships. , 2011, , .		7
62	A novel analytical method for prediction of the broken bar fault signature amplitude in induction machine cage rotor and synchronous machine damper winding. , 2011, , .		4
63	A class of cyber-physical switching attacks for power system disruption. , 2011, , .		17
64	Switched system models for coordinated cyber-physical attack construction and simulation. , 2011, , .		33
65	Multi-agent system-based real-time load management for NG IPS ships in high/medium voltage level. , 2011, , .		9
66	Dynamic load management for NG IPS ships. , 2010, , .		14
67	Towards a Framework for Cyber Attack Impact Analysis of the Electric Smart Grid. , 2010, , .		124
68	Detecting Incipient Faults via Numerical Modeling and Statistical Change Detection. IEEE Transactions on Power Delivery, 2010, 25, 1275-1283.	4.3	33
69	Security Constrained Power Management System for the NG IPS ships. , 2010, , .		8
70	Genetic algorithm based damage control for shipboard power systems. , 2009, , .		5
71	A Novel Condition Assessment System for Underground Distribution Applications. IEEE Transactions on Power Systems, 2009, 24, 1115-1125.	6.5	30
72	Investigation of broadband over power line channel capacity of shipboard power system cables for ship communication networks. , 2009, , .		12

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73	Modeling of synchronous machines with damper windings for condition monitoring. , 2009, , .		17
74	An approach to mitigate the impact of distributed generation on the Overcurrent Protection scheme for radial feeders. , 2009, , .		27
75	Overcurrent protection issues for radial distribution systems with distributed generators. , 2009, , .		5
76	Characterization of underground cable incipient behavior using time-frequency multi-resolution analysis and artificial neural networks. , 2008, , .		11
77	Temporal Analysis of Power System Measurements for Condition Assessment Purposes. IEEE Power Engineering Society General Meeting, 2007, , .	0.0	3
78	Probability-based predictive self-healing reconfiguration for shipboard power systems. IET Generation, Transmission and Distribution, 2007, 1, 405.	2.5	15
79	Test Bed for Studying Real-Time Simulation and Control for Shipboard Power Systems. , 2007, , .		4
80	Diakoptics in Shipboard Power System Simulation. , 2006, , .		3
81	Geographical Information Systems for Automation of Shipboard Power Systems. Naval Engineers Journal, 2006, 118, 63-75.	0.1	2
82	Real-Time Simulation using PC-based Kernels. , 2006, , .		5
83	Self-Healing Reconfiguration for Restoration of Naval Shipboard Power Systems. IEEE Transactions on Power Systems, 2004, 19, 754-762.	6.5	84
84	Characterization of transients in transformers using discrete wavelet transforms. IEEE Transactions on Power Systems, 2003, 18, 648-656.	6.5	79
85	Electrical behavior of contaminated distribution insulators exposed to natural wetting. IEEE Transactions on Power Delivery, 2003, 18, 551-558.	4.3	25
86	Improving Learning of Digital Systems Concepts Using a Video Game. , 0, , .		1
87	The Enrichment Experiences in Engineering (E3). , 0, , .		0