Chia-Chi Chu

List of Publications by Year
in descending order

150 papers	2,802 citations	236833 25 h-index	197736 49 g-index
150 all docs	150 docs citations	150 times ranked	2429 citing authors

#	Article	IF	Citations
1	Probabilistic Optimal PMU Placements Under Limited Observability Propagations. IEEE Systems Journal, 2022, 16, 767-776.	2.9	10
2	Synchronization of Heterogeneous Forced First-Order Kuramoto Oscillator Networks: A Differential Inequality Approach. IEEE Transactions on Circuits and Systems I: Regular Papers, 2022, 69, 757-770.	3.5	4
3	Chance-constrained unit commitment with energy storage systems in electric power systems. Energy Reports, 2022, 8, 1067-1090.	2.5	15
4	Multiple Delayed Signal Cancellation Filter-Based Enhanced Frequency-Locked Loop Under Adverse Grid Conditions. IEEE Transactions on Industry Applications, 2022, 58, 6612-6628.	3.3	9
5	Deception Attack Detection of Isolated DC Microgrids Under Consensus- Based Distributed Voltage Control Architecture. IEEE Journal on Emerging and Selected Topics in Circuits and Systems, 2021, 11, 155-167.	2.7	26
6	Developing an Optimal Scheduling of Taiwan Power System With Highly Penetrated Renewable Energy Resources and Pumped Hydro Storages. IEEE Transactions on Industry Applications, 2021, 57, 1973-1986.	3.3	10
7	An Accurate Accelerated Steady-State Model for High-Level Modular Multilevel Converters. IEEE Transactions on Industry Applications, 2021, 57, 4278-4293.	3.3	3
8	A Fast Frequency Control Based on Model Predictive Control Taking Into Account of Optimal Allocation of Power From the Energy Storage System. IEEE Transactions on Power Delivery, 2021, 36, 2467-2478.	2.9	18
9	Applications of System Integrity Protection Scheme and Multi-Phase Reclosing of Transmission Lines for Stability Enhancement in Taiwan Power System. IEEE Transactions on Industry Applications, 2021, 57, 4548-4557.	3.3	0
10	Multiple Delayed Signal Cancellation Filter-Based Enhanced Frequency-Locked Loop Under Adverse Grid Conditions. , 2021, , .		1
11	The Refinement of Generation Scheduling and Underfrequency Load Shedding Protection Scheme for Nangan-Beigan Power System in Taiwan. , 2021, , .		0
12	High Step-Down Conversion Ratios of DC-DC Converters Under Triple PWM Control Schemes. , 2021, , .		0
13	Dynamical Performance Enhancement of Synchronous Reference Frame Phase-Locked Loop by K-Factor Method. , 2021, , .		0
14	Distributed Optimal Consensus-Based Secondary Frequency and Voltage Control of Isolated AC Microgrids. , 2021, , .		0
15	Effect of Taiwan's energy policy on unit commitment in 2025. Applied Energy, 2020, 277, 115585.	5.1	11
16	Experiences on Remediation of Special Protection System for Kinmen Power System in Taiwan. IEEE Transactions on Industry Applications, 2020, 56, 2418-2426.	3.3	4
17	Dynamic Performance Enhancement of Single-Phase and Two-Phase Enhanced Phase-Locked Loops by Using In-Loop Multiple Delayed Signal Cancellation Filters. IEEE Transactions on Industry Applications, 2020, 56, 740-751.	3.3	22
18	Enhanced Optimal PMU Placements With Limited Observability Propagations. IEEE Access, 2020, 8, 22515-22524.	2.6	17

#	Article	IF	Citations
19	Recursive Implementation of Multiple Delayed Signal Cancellation Operators and Their Applications in Prefiltered and In-Loop Filtered PLLs Under Adverse Grid Conditions. IEEE Transactions on Industry Applications, 2019, 55, 5383-5394.	3.3	18
20	Integrations of Neural Networks and Transient Energy Functions for Designing Supplementary Damping Control of UPFC. IEEE Transactions on Industry Applications, 2019, 55, 6438-6450.	3.3	15
21	Single-Phase Enhanced Phase-Locked Loops Based on Multiple Delayed Signal Cancellation Filters for Micro-Grid Applications. IEEE Transactions on Industry Applications, 2019, 55, 7122-7133.	3.3	27
22	Intrusion Detection in Distributed Frequency Control of Isolated Microgrids. IEEE Transactions on Smart Grid, 2019, 10, 6502-6515.	6.2	49
23	Impacts of Wind Gust and Cloud-Shading on Renewable Energy Generation. , 2019, , .		1
24	Experiences on Remediation of Special Protection System for Kinmen Power System in Taiwan. , 2019, , .		1
25	Single-Phase Enhanced Phase-Locked Loops Based on Multiple Delayed Signal Cancellation Filters. , 2019, , .		0
26	Decentralized PMU Placements in a Dynamic Programming Approach. , 2019, , .		2
27	Novel Control Method for Ultra-High Step-Down Converter. , 2019, , .		3
28	Distributed Probabilistic ATC Assessment by Optimality Conditions Decomposition and LHS Considering Intermittent Wind Power Generation. IEEE Transactions on Sustainable Energy, 2019, 10, 375-385.	5.9	30
29	Three-Phase PLLs by Using Frequency Adaptive Multiple Delayed Signal Cancellation Prefilters Under Adverse Grid Conditions. IEEE Transactions on Industry Applications, 2018, 54, 3832-3844.	3.3	57
30	Dynamic Performance Improvement of Multiple Delayed Signal Cancelation Filters Based Three-Phase Enhanced-PLL. IEEE Transactions on Industry Applications, 2018, 54, 5293-5305.	3.3	34
31	Consensus-Based Droop Control of Isolated Micro-Grids by ADMM Implementations. IEEE Transactions on Smart Grid, 2018, 9, 5101-5112.	6.2	25
32	Model Reference Adaptive Back-Electromotive-Force Estimators for Sensorless Control of Grid-Connected DFIGs. IEEE Transactions on Industry Applications, 2018, 54, 1701-1711.	3.3	47
33	Probabilistic Load Margin Analysis Considering Stochastic Wind Power Fluctuations. , 2018, , .		0
34	UPFC Supplementary Damping Control Synthesis: A Forward Neural Networks Approximated Energy Function Approach. , 2018, , .		4
35	A Novel Load Margin Sensitivity Method for Predicting Load Margin of Line Outage with Wind Power Generation Systems. IFAC-PapersOnLine, 2018, 51, 586-591.	0.5	2
36	Single-Phase Multiple Delayed Signal Cancellation Filter-Based Enhanced Phase-Locked Loop for Accurate Estimations of Grid Voltage Information. , 2018, , .		3

#	ARTICLE	IF	CITATIONS
37	Recursive Implementation of Multiple Delayed Signal Cancellation Operators and Their Applications in Pre-Filtered and In-Loop Filtered PLLs Under Adverse Grid Conditions. , 2018, , .		5
38	Improved Performance of Single-phase and Two-Phase Enhanced Phase-Locked Loops by using Multiple Delayed Signal Cancellation Filters. , 2018, , .		2
39	NTL Detection in Electric Distribution Systems Using the Maximal Overlap Discrete Wavelet-Packet Transform and Random Undersampling Boosting. IEEE Transactions on Power Systems, 2018, 33, 7171-7180.	4.6	94
40	Distributed Pinning Droop Control in Isolated AC Microgrids. IEEE Transactions on Industry Applications, 2017, 53, 3237-3249.	3.3	42
41	Complex Networks Theory For Modern Smart Grid Applications: A Survey. IEEE Journal on Emerging and Selected Topics in Circuits and Systems, 2017, 7, 177-191.	2.7	81
42	Design and Deployment of Special Protection System for Kinmen Power System in Taiwan. IEEE Transactions on Industry Applications, 2017, 53, 4176-4185.	3.3	19
43	Guest Editorial Complex Network for Modern Smart Grid Applications (Part 1: Analysis and) Tj ETQq1 1 0.784314 rgBT /Overlock 10 T	2.7	1
44	Guest Editorial Complex Network for Modern Smart Grid Application—Part 2: Stability, Reliability and Resilience Issues. IEEE Journal on Emerging and Selected Topics in Circuits and Systems, 2017, 7, 345-348.	2.7	2
45	Three-phase grid synchronization PLL using multiple delayed signal cancellation under adverse grid voltage conditions. , 2017, , .		7
46	Improved practices in machine learning algorithms for NTL detection with imbalanced data. , 2017, , .		28
47	Performance enhancement of pre-filtered multiple delayed signal cancellation based PLL. , 2017, , .		6
48	An efficient method for small-signal stability assessment of $P \bar{a}\hat{}\ \AE'/Q \bar{a}\hat{}\ V\grave{I}\ddagger$ droop control in an isolated micro-grid. , 2016, , .		0
49	Optimal PMU placements under propagation depth constraints by mixed integer linear programming. , 2016, , .		4
50	Consensus-based distributed droop control of VSGs for isolated AC micro-grids by ADMMs. , 2016, , .		4
51	On the use of optimality conditions decomposition techniques for distributed ATC assessment of multi-area power systems. , 2016, , .		1
52	Distributed pinning droop control in isolated AC microgrids. , 2016, , .		3
53	Pinning-based distributed droop control of power converters in isolated AC microgrids. , 2016, , .		1
54	Model reference adaptive back-EMF estimations for sensorless control of grid-connected doubly-fed induction generators. , 2016, , .		1

#	ARTICLE	IF	CITATIONS
55	Design and deployment of special protection system for Kinmen power system. , 2016, , .		3
56	Distributed algorithm for PMU placement under n-1 line outage conditions. , 2015, , .		1
57	Applications of solid-state fault current limiters for transient stability enhancement of wind power generation systems. , 2015, , .		0
58	Consensus-based distributed droop control of isolated micro-grids by alternating direction multipliers methods. , 2015, , .		1
59	Hybrid search for the optimal PMU placement problem on a power grid. European Journal of Operational Research, 2015, 243, 985-994.	3.5	25
60	Consensus-Based Droop Control Synthesis for Multiple DICs in Isolated Micro-Grids. IEEE Transactions on Power Systems, 2015, 30, 2243-2256.	4.6	136
61	Long-Term Voltage Instability Detections of Multiple Fixed-Speed Induction Generators in Distribution Networks Using Synchrophasors. IEEE Transactions on Smart Grid, 2015, 6, 2069-2079.	6.2	21
62	Iterative Distributed Algorithms for Real-Time Available Transfer Capability Assessment of Multiarea Power Systems. IEEE Transactions on Smart Grid, 2015, 6, 2569-2578.	6.2	33
63	Consensus-based distributed droop control of synchronverters for isolated micro-grids. , 2015, , .		3
64	Consensus-Based Secondary Frequency and Voltage Droop Control of Virtual Synchronous Generators for Isolated AC Micro-Grids. IEEE Journal on Emerging and Selected Topics in Circuits and Systems, 2015, 5, 443-455.	2.7	152
65	Capacity-based service restoration using Multi-Agent technology and ensemble learning. , 2015, , .		3
66	Consensus-based P-f /Q-V droop control in autonomous micro-grids with wind generators and energy storage systems. , 2014, , .		7
67	Robust consensus-based droop control for multiple power converters in isolated micro-grids. , 2014, , .		9
68	Short-term voltage instability detections of wind generators using synchrophasors. , 2014, , .		5
69	A Novel Transformer-less Adaptable Voltage Quadrupler DC Converter with Low Switch Voltage Stress. IEEE Transactions on Power Electronics, 2014, 29, 4787-4796.	5.4	133
70	Wide-Area Measurement-Based Voltage Stability Indicators by Modified Coupled Single-Port Models. IEEE Transactions on Power Systems, 2014, 29, 756-764.	4.6	101
71	A novel transformer-less interleaved four-phase high step-down DC converter with low switch voltage stress. , 2014, , .		0
72	Multi-objective power management on smart grid. , 2014, , .		4

#	ARTICLE	IF	CITATIONS
73	Applications of Nonlinear Control for Fault Ride-Through Enhancement of Doubly Fed Induction Generators. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2014, 2, 749-763.	3.7	13
74	A Novel Transformerless Interleaved High Step-Down Conversion Ratio DCâ€"DC Converter With Low Switch Voltage Stress. IEEE Transactions on Industrial Electronics, 2014, 61, 5290-5299.	5.2	106
75	Modelling and locating unified power-flow controllers for static voltage stability enhancements. International Transactions on Electrical Energy Systems, 2014, 24, 1524-1540.	1.2	10
76	Distributed APPM for on-line voltage stability assessment of the large-scale power grid. , 2014, , .		0
77	A transformer-less interleaved four-phase current-fed converter with new voltage multiplier topology. , 2013, , .		1
78	Autonomous power management and load sharing in isolated micro-grids by consensus-based droop control of power converters. , 2013, , .		12
79	PMU measurement-based voltage stability indicators by modified multi-port equivalent models. , 2013, , .		2
80	Implementations of seamless transfer and active islanding detections for microgrid applications. , 2013, , .		7
81	Consensus-based droop control synthesis for multiple power converters in lossy micro-grids. , 2013, , .		5
82	A New Droop Control Method for the Autonomous Operation of Distributed Energy Resource Interface Converters. IEEE Transactions on Power Electronics, 2013, 28, 1980-1993.	5.4	367
83	Laboratory-scaled STATCOM for unbalanced voltage sag mitigation by decoupled double synchronous reference current controllers. , 2013, , .		3
84	Back-EMF-based model-reference adaptive sensorless control for grid-connected DFIGs. , 2013, , .		3
85	Probabilistic load margins of power systems embedded with wind farms. , 2013, , .		1
86	Applying power domination with hybrid search to optimal PMU placement problems. , 2013, , .		0
87	Quantitative analysis of system parameters asymmetry on droop-controlled converters. , 2012, , .		4
88	Risk-based generator rejection protection system design in Taiwan Power System. , 2012, , .		1
89	Real-time simulations of a laboratory-scale micro-grid system in Taiwan. , 2012, , .		3
90	Distributed real-time simulation modeling and analysis of a micro-grid with renewable energy sources. , 2012, , .		1

#	ARTICLE	IF	CITATIONS
91	Distributed real-time simulation and on-site development of a micro-grid with renewable energy sources. , 2012, , .		1
92	Smart Grid Development in Taiwan. IEEJ Journal of Industry Applications, 2012, 1, 41-45.	0.9	3
93	Impacts on the transmission grid for integrations of renewable energy in Taiwan. , 2011, , .		3
94	Research of Digital Relays based on Real-Time Simulation Techniques. , 2011, , .		0
95	Structure preserving model-order reductions of MIMO second-order systems using Arnoldi methods. Mathematical and Computer Modelling, 2010, 51, 956-973.	2.0	8
96	Boundary properties of the BCU method for power system transient stability assessment. , 2010, , .		7
97	Fault locating estimation using thevenin equivalent in power systems. , 2010, , .		5
98	A new droop control method for the autonomous operation of distributed energy resource interface converters. , 2010, , .		49
99	Energy function based neural networks UPFC for transient stability enhancement of network-preserving power systems. , 2010, , .		4
100	Fault ride-through enhancements of wind turbine with doubly-fed induction generator using the robust variable structure system control. , 2010, , .		1
101	A novel high step-up ratio interleaved dc converter with low switch voltage stress. , 2010, , .		1
102	Dynamical equivalencing of large-scale power systems using Second-Order Arnoldi algorithms. , 2009, , .		1
103	Universal field-oriented rotor-side controllers for doubly-fed induction generators. , 2009, , .		4
104	Applications of STATCOMs for voltage security enhancements in Taiwan power system. , 2009, , .		2
105	Control strategies for distributed energy resources interface converters in the low voltage Microgrid. , 2009, , .		10
106	Passivity-based control of UPFCs. , 2009, , .		3
107	Model-order reductions for MIMO systems using global Krylov subspace methods. Mathematics and Computers in Simulation, 2008, 79, 1153-1164.	2.4	27
108	Power swings damping improvement by control of UPFC and SMES based on direct Lyapunov method application. , 2008, , .		13

#	ARTICLE	IF	CITATIONS
109	Application of Lyapunov-based adaptive neural network upfc damping controllers for transient stability enhancement. , 2008, , .		8
110	Integrated application of SSSC and SMES to improve power swings damping based on direct Lyapunov method. , 2008, , .		5
111	Applications of AOGL Model-Order Reduction Techniques in Interconnect Analysis. , 2007, , .		0
112	An internet based embedded network monitoring system for renewable energy systems. , 2007, , .		2
113	Nonlinear STATCOM Controller using Passivity-Based Sliding Mode Control. , 2006, , .		13
114	An adaptive-order rational Arnoldi method for model-order reductions of linear time-invariant systems. Linear Algebra and Its Applications, 2006, 415, 235-261.	0.4	37
115	The Multiple Point Global Lanczos Method for MIMO Interconnect Model-Order Reductions. , 2006, , .		0
116	Model-Order Reduction Algorithm with Structure Preserving Techniques. , 2006, , .		1
117	Constructing Analytical Energy Functions for Network-Preserving Power System Models. Circuits, Systems, and Signal Processing, 2005, 24, 363-383.	1.2	30
118	Infrastructure Development and Integration of Electrical-Based Dimensional Process Window Checking. IEEE Transactions on Semiconductor Manufacturing, 2004, 17, 123-141.	1.4	4
119	Smart gateway systems for Internet security for broadband communication networks: SoC solutions and FPGA demonstrations. , 2003, , .		1
120	On projection-based algorithms for model-order reduction of interconnects. IEEE Transactions on Circuits and Systems Part 1: Regular Papers, 2002, 49, 1563-1585.	0.1	75
121	Comprehensive UPFC models for power flow calculations in practical power systems. , 2001, , .		4
122	Constructing analytical energy functions for lossless network-reduction power system models: Framework and new developments. Circuits, Systems, and Signal Processing, 1999, 18, 1-16.	1.2	17
123	A systematic search method for obtaining multiple local optimal solutions of nonlinear programming problems. IEEE Transactions on Circuits and Systems Part 1: Regular Papers, 1996, 43, 99-109.	0.1	69
124	Direct stability analysis of electric power systems using energy functions: theory, applications, and perspective. Proceedings of the IEEE, 1995, 83, 1497-1529.	16.4	345
125	On the fractal nature of trabecular structure. Medical Physics, 1994, 21, 1535-1540.	1.6	57
126	Some results on the problems of decentralized reliable stabilization. International Journal of Control, 1991, 53, 1343-1358.	1.2	3

#	ARTICLE	IF	CITATIONS
127	A systematic search method for obtaining multiple local optimal solutions of nonlinear programming problems. , 0, , .		0
128	An investigation of invariant properties of unstable equilibrium points on the stability boundary for simple power system models. , 0, , .		1
129	Chaotic motions of simple power system models. , 0, , .		1
130	Multi-swing transient instability problems in electric power systems: a preliminary study. , 0, , .		0
131	Analysis of transmission capability associated with the installation of the largest nonutility generating (NUG) facility in Taiwan. , 0, , .		3
132	Applications of multi-point Arnoldi algorithms to linear lumped transformer model simplifications. , 0, , .		4
133	Efficient look-ahead load margin and voltage profiles contingency analysis using the tangent vector index method. , 0, , .		3
134	Crosstalk estimation in high-speed VLSI interconnect using coupled RLC-tree models. , 0, , .		0
135	Optimal strategy to split firm and recallable available transfer capability in the deregulated environment. , 0, , .		1
136	Intelligent multipoint Arnoldi (IMA) approximations of FIR filters by low-order linear-phase IIR filters. , 0, , .		0
137	Power flow models of unified power flow controllers in various operation modes. , 0, , .		1
138	Moment computations for R(L)C interconnects with multiple resistor loops using robdd techniques. , 0, , .		0
139	Applications of tree/link partitioning for moment computations of general lumped RLC networks with resistor loops. , 0, , .		1
140	Generalizations of adjoint networks technique for RLC interconnects model-order reductions. , 0, , .		0
141	Robust power system stabilizer design for an industrial power system in Taiwan using linear matrix inequality techniques. , 0, , .		4
142	Moment computations of nonuniform distributed coupled RLC trees with applications to estimating crosstalk noise. , 0, , .		0
143	Error estimations of projection-based interconnect model-order reduction techniques. , 0, , .		0
144	Power flow computations of convertible static compensators for large-scale power systems. , 0, , .		5

#	Article	IF	Citations
145	Multi-point model reductions of VLSI interconnects using the rational arnoldi method with adaptive orders (RAMAO). , 0, , .		1
146	Interconnect Model Reductions by Using the AORA Algorithm With Considering the Adjoint Network. , 0, , .		2
147	A Web-based Power Flow Calculation of Large-Scale Power Systems Embedded with VSC-based HVDC systems. , 0, , .		2
148	Passivity-based Nonlinear STATCOM Controller Design for Improving Transient Stability of Power Systems. , 0, , .		10
149	The Global Lanczos Method for MIMO Interconnect Order Reductions. , 0, , .		3
150	MIMO Interconnects Order Reductions by Using the Global Arnoldi Algorithm. , 0, , .		2