Damian Giaouris

List of Publications by Year in descending order

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83 papers	2,269 citations	304602 22 h-index	223716 46 g-index
83 all docs	83 docs citations	83 times ranked	1698 citing authors

#	Article	IF	Citations
1	Controlled AC Electrical Drives. IEEE Transactions on Industrial Electronics, 2008, 55, 481-491.	5.2	281
2	MRAS Sensorless Vector Control of an Induction Motor Using New Sliding-Mode and Fuzzy-Logic Adaptation Mechanisms. IEEE Transactions on Energy Conversion, 2010, 25, 394-402.	3.7	200
3	Stability Analysis of the Continuous-Conduction-Mode Buck Converter Via Filippov's Method. IEEE Transactions on Circuits and Systems I: Regular Papers, 2008, 55, 1084-1096.	3.5	186
4	Sensorless Control of Induction Motor Drives at Very Low and Zero Speeds Using Neural Network Flux Observers. IEEE Transactions on Industrial Electronics, 2009, 56, 3029-3039.	5.2	125
5	Active Online System Identification of Switch Mode DCâ€“DC Power Converter Based on Efficient Recursive DCD-IIR Adaptive Filter. IEEE Transactions on Power Electronics, 2012, 27, 4425-4435.	5.4	109
6	Application of Filippov method for the analysis of subharmonic instability in dcâ€“dc converters. International Journal of Circuit Theory and Applications, 2009, 37, 899-919.	1.3	94
7	A Review on Stability Analysis Methods for Switching Mode Power Converters. IEEE Journal on Emerging and Selected Topics in Circuits and Systems, 2015, 5, 302-315.	2.7	82
8	A Resilience-Based Architecture for Joint Distributed Energy Resources Allocation and Hourly Network Reconfiguration. IEEE Transactions on Industrial Informatics, 2019, 15, 5444-5455.	7.2	72
9	Control of Fast Scale Bifurcations in Power-Factor Correction Converters. IEEE Transactions on Circuits and Systems Part 2: Express Briefs, 2007, 54, 805-809.	2.3	62
10	Stator current model reference adaptive systems speed estimator for regeneratingâ€mode lowâ€speed operation of sensorless induction motor drives. IET Electric Power Applications, 2013, 7, 597-606.	1.1	60
11	Advances on System Identification Techniques for DCâ€“DC Switch Mode Power Converter Applications. IEEE Transactions on Power Electronics, 2019, 34, 6973-6990.	5.4	58
12	Wavelet Denoising for Electric Drives. IEEE Transactions on Industrial Electronics, 2008, 55, 543-550.	5.2	57
13	Adaptive PD+I Control of a Switch-Mode DC–DC Power Converter Using a Recursive FIR Predictor. IEEE Transactions on Industry Applications, 2011, 47, 2135-2144.	3.3	53
14	Complex Interaction Between Tori and Onset of Three-Frequency Quasi-Periodicity in a Current Mode Controlled Boost Converter. IEEE Transactions on Circuits and Systems I: Regular Papers, 2012, 59, 207-214.	3.5	53
15	Stability Analysis and Control of Nonlinear Phenomena in Boost Converters Using Model-Based Takagiâ€“Sugeno Fuzzy Approach. IEEE Transactions on Circuits and Systems I: Regular Papers, 2010, 57, 200-212.	3.5	51
16	Stability of a boost converter fed from photovoltaic source. Solar Energy, 2013, 98, 458-471.	2.9	51
17	Performance investigation of a hybrid renewable power generation and storage system using systemic power management models. Energy, 2013, 61, 621-635.	4.5	46
18	A systems approach for management of microgrids considering multiple energy carriers, stochastic loads, forecasting and demand side response. Applied Energy, 2018, 226, 546-559.	5.1	44

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19	Nonlinear Analysis and Control of Interleaved Boost Converter Using Real-Time Cycle to Cycle Variable Slope Compensation. IEEE Transactions on Power Electronics, 2017, 32, 7256-7270.	5.4	41
20	Nonlinear Dynamics and Bifurcation Analysis of a Boost Converter for Battery Charging in Photovoltaic Applications. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2014, 24, 1450142.	0.7	34
21	Reinforcement learning based adaptive power pinch analysis for energy management of stand-alone hybrid energy storage systems considering uncertainty. Energy, 2020, 193, 116622.	4.5	34
22	Linearized Hybrid Stochastic/Robust Scheduling of Active Distribution Networks Encompassing PVs. IEEE Transactions on Smart Grid, 2020, 11, 357-367.	6.2	33
23	Universal PLL Strategy for Sensorless Speed and Position Estimation of PMSM. , 2008, , .		22
24	Nonlinear stability analysis and a new design methodology for a PEM fuel cell fed DCâ€“DC boost converter. International Journal of Hydrogen Energy, 2012, 37, 18205-18215.	3.8	22
25	A power grand composite curves approach for analysis and adaptive operation of renewable energy smart grids. Clean Technologies and Environmental Policy, 2015, 17, 1171-1193.	2.1	18
26	Polynomial Curve Slope Compensation for Peak-Current-Mode-Controlled Power Converters. IEEE Transactions on Industrial Electronics, 2019, 66, 470-481.	5.2	18
27	Foldings and grazings of tori in current controlled interleaved boost converters. International Journal of Circuit Theory and Applications, 2014, 42, 1080-1091.	1.3	17
28	Coâ€optimising distribution network adequacy and security by simultaneous utilisation of network reconfiguration and distributed energy resources. IET Generation, Transmission and Distribution, 2019, 13, 4747-4755.	1.4	17
29	Active Building as an Energy System: Concept, Challenges, and Outlook. IEEE Access, 2021, 9, 58009-58024.	2.6	16
30	Effect of vehicle mass changes on the accuracy of Kalman filter estimation of electric vehicle speed. IET Electrical Systems in Transportation, 2013, 3, 67-78.	1.5	15
31	Fastâ€scale stability limits of a twoâ€stage boost power converter. International Journal of Circuit Theory and Applications, 2016, 44, 1127-1141.	1.3	15
32	Complex nonâ€linear phenomena and stability analysis of interconnected power converters used in distributed power systems. IET Power Electronics, 2016, 9, 855-863.	1.5	15
33	Investigation of the near-grazing behavior in hard-impact oscillators using model-based TS fuzzy approach. Nonlinear Dynamics, 2012, 69, 1293-1309.	2.7	13
34	LOCAL BIFURCATIONS OF A QUASIPERIODIC ORBIT. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2012, 22, 1250289.	0.7	12
35	Power grand composite curves shaping for adaptive energy management of hybrid microgrids. Renewable Energy, 2016, 95, 433-448.	4.3	12
36	Optimising Building-to-Building and Building-for-Grid Services Under Uncertainty: A Robust Rolling Horizon Approach. IEEE Transactions on Smart Grid, 2022, 13, 1453-1467.	6.2	12

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37	A neural network based stator current MRAS observer for speed sensorless induction motor drives. , 2008, , .		11
38	System identification of PWM dc-dc converters during abrupt load changes. , 2009, , .		11
39	Dynamical analysis of single-inductor dual-output DC-DC converters. , 2013, , .		11
40	Optimal cost-based model for sizing grid-connected PV and battery energy system. , 2017, , .		11
41	Avoiding instabilities in power electronic systems: toward an onâ€chip implementation. IET Power Electronics, 2017, 10, 1778-1787.	1.5	11
42	Demand Response Model Development for Smart Households Using Time of Use Tariffs and Optimal Controlâ€"The Isle of Wight Energy Autonomous Community Case Study. Energies, 2020, 13, 541.	1.6	11
43	Active Participation of Buildings in the Energy Networks: Dynamic/Operational Models and Control Challenges. Energies, 2021, 14, 7220.	1.6	11
44	Performance Evaluation of a Sensorless Induction Motor Drive at Very Low and Zero Speed Using a MRAS Speed Observer. , 2008, , .		10
45	An experimental assessment of a stator current MRAS based on neural networks for sensorless control of induction machines. , 2011, , .		10
46	Nonâ€linear modelling and stability analysis of resonant DCâ€"DC converters. IET Power Electronics, 2015, 8, 2492-2503.	1.5	10
47	Piecewise Quadratic Slope Compensation Technique for DC-DC Switching Converters. IEEE Transactions on Circuits and Systems I: Regular Papers, 2020, 67, 5574-5585.	3.5	10
48	A Joint Risk- and Security-Constrained Control Framework for Real-Time Energy Scheduling of Islanded Microgrids. IEEE Transactions on Smart Grid, 2022, 13, 3354-3368.	6.2	9
49	Distributed Static Series Compensation for distribution network line voltage profile improvement. , 2011, , .		7
50	Nonlinear analysis for interleaved boost converters based on Monodromy matrix. , 2014, , .		7
51	Control of switching circuits using complete-cycle solution matrices. , 2006, , .		6
52	Chaos, coexisting attractors, and fractal basin boundaries in DC drives with full-bridge converter. , 2010, , .		6
53	Comparative Evaluation of Field Oriented Control and Direct Torque Control Methodologies in Field Weakening Regions for Interior Permanent Magnet Machines. , 2019, , .		6
54	Stability of switching circuits using complete-cycle solution matrices. , 2006, , .		5

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55	Design of PID controllers using Filippov's method for stable operation of DCâ€“DC converters. International Journal of Circuit Theory and Applications, 2016, 44, 1437-1454.	1.3	5
56	Coordinated Storage and Flexible Loads as a Network Service Provider: a Resilience-Oriented Paradigm. , 2019, , .		5
57	Application of the Filippov Method to PVâ€fed DCâ€ĐC converters modeled as hybridâ€ĐAEs. Engineering Reports, 2020, 2, e12237.	0.9	5
58	Stochastic Procurement of Fast Reserve Services in Renewable Integrated Power Systems. IEEE Access, 2021, 9, 30946-30959.	2.6	5
59	Improved Voltage Boundary With Model-Based Control Algorithm for Increased Torque in the Field Weakening Region of Induction Machines. IEEE Transactions on Transportation Electrification, 2021, 7, 1600-1614.	5.3	5
60	Low speed operation improvement of MRAS sensorless vector control induction motor drive using neural network flux observers. Industrial Electronics Society (IECON), Annual Conference of IEEE, 2006, , .	0.0	4
61	A new method on the limit cycle stability analysis of digitally controlled interleaved DCâ€“DC converters. Control Engineering Practice, 2019, 90, 111-122.	3.2	4
62	Stability analysis of digital state feedback controlled boost converters. , 2013, , .		3
63	Boosting integration capacity of electric vehicles: A robust security constrained decision making. International Journal of Electrical Power and Energy Systems, 2021, 133, 107229.	3.3	3
64	Probabilistic adaptive power pinch analysis for islanded hybrid energy storage systems. Journal of Energy Storage, 2022, 54, 105224.	3.9	3
65	Novel MIMO 4-DOF position control for Capsule Endoscope. , 2011, , .		2
66	A Community-Based Building-to-Building Strategy for Multi-Objective Energy Management of Residential Microgrids. , 2021, , .		2
67	A stochastic framework for secure reconfiguration of active distribution networks. IET Generation, Transmission and Distribution, 2022, 16, 580-590.	1.4	2
68	Nonsmooth dynamics of electrical systems. , 2011, , .		1
69	Adaptive Management of Renewable Energy Smart Grids Using a Power Grand Composite Curves Approach. Computer Aided Chemical Engineering, 2015, , 2411-2416.	0.3	1
70	Design of robust digitally controlled DCâ€“DC converters in the presence of strong interference. International Journal of Circuit Theory and Applications, 2017, 45, 1742-1759.	1.3	1
71	Benefits of lithium-ion batteries for domestic users under TOU tariffs. , 2017, , .		1
72	Probabilistic adaptive model predictive power pinch analysis (PoPA) energy management approach to uncertainty. Journal of Engineering, 2019, 2019, 4288-4292.	0.6	1

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73	A Case Study of Real Time Implementation of Extended Kalman Filter in Dual Core DSP for The On-line Estimation of Induction Machine Parameters. , 2019, , .		1
74	Application of Robust Receding Horizon controller for Real-Time Energy Management of Reconfigurable Islanded Microgrids. , 2021, , .		1
75	Fuzzy Logic for Non-smooth Dynamical Systems. Advances in Computer and Electrical Engineering Book Series, 0, , 147-168.	0.2	1
76	Electric drives estimation and denoising schemes based on wavelet transforms. Industrial Electronics Society (IECON), Annual Conference of IEEE, 2006, , .	0.0	0
77	Modeling and stability analysis of DC-DC buck converter via Takagi-Sugeno fuzzy approach. , 2008, , .		0
78	Efficient design of boost converters for fuel cells. , 2011, , .		0
79	Analysis and control of fast scale bifurcation in series connected DC drive operating in continuous conduction mode. , 2015, , .		0
80	On-Line Estimation of Magnetizing Inductance and Rotor Resistance in Extended Kalman-Filter for Induction Machines. , 2018, , .		0
81	Adaptive Power Pinch Analysis for Energy management of Hybrid Energy Storage Systems. , 2018, , .		0
82	Guest Editorial: On the role of energy storage systems in the grid of the future: Selected papers from the 2019 UK Energy Storage Conference. IET Smart Grid, 2021, 4, 135-138.	1.5	0
83	Reduced Inductance in DC-DC Converter Circuits via the Application of Filippovâ€™s Method. , 2013, , 295-311.		0