Francisco D Freijedo

List of Publications by Year
in descending order

101	6,186	94433 37	133252 59
papers	citations	h-index	g-index

101	101	101	4146
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Effects of Discretization Methods on the Performance of Resonant Controllers. IEEE Transactions on Power Electronics, 2010, 25, 1692-1712.	7.9	532
2	Moving Average Filter Based Phase-Locked Loops: Performance Analysis and Design Guidelines. IEEE Transactions on Power Electronics, 2014, 29, 2750-2763.	7.9	438
3	Design-Oriented Study of Advanced Synchronous Reference Frame Phase-Locked Loops. IEEE Transactions on Power Electronics, 2013, 28, 765-778.	7.9	419
4	Eliminating Ground Current in a Transformerless Photovoltaic Application. IEEE Transactions on Energy Conversion, 2010, 25, 140-147.	5.2	395
5	Analysis and Design of Resonant Current Controllers for Voltage-Source Converters by Means of Nyquist Diagrams and Sensitivity Function. IEEE Transactions on Industrial Electronics, 2011, 58, 5231-5250.	7.9	323
6	Dynamics Assessment of Advanced Single-Phase PLL Structures. IEEE Transactions on Industrial Electronics, 2013, 60, 2167-2177.	7.9	287
7	High-Performance Digital Resonant Controllers Implemented With Two Integrators. IEEE Transactions on Power Electronics, 2011, 26, 563-576.	7.9	235
8	Multilevel Multiphase Space Vector PWM Algorithm. IEEE Transactions on Industrial Electronics, 2008, 55, 1933-1942.	7.9	231
9	Tuning of Phase-Locked Loops for Power Converters Under Distorted Utility Conditions. IEEE Transactions on Industry Applications, 2009, 45, 2039-2047.	4.9	191
10	Design and Tuning of a Modified Power-Based PLL for Single-Phase Grid-Connected Power Conditioning Systems. IEEE Transactions on Power Electronics, 2012, 27, 3639-3650.	7.9	189
11	Assessment and Optimization of the Transient Response of Proportional-Resonant Current Controllers for Distributed Power Generation Systems. IEEE Transactions on Industrial Electronics, 2013, 60, 1367-1383.	7.9	166
12	A Quasi-Type-1 Phase-Locked Loop Structure. IEEE Transactions on Power Electronics, 2014, 29, 6264-6270.	7.9	135
13	Advantages and Challenges of a Type-3 PLL. IEEE Transactions on Power Electronics, 2013, 28, 4985-4997.	7.9	132
14	An Efficient Implementation of Generalized Delayed Signal Cancellation PLL. IEEE Transactions on Power Electronics, 2016, 31, 1085-1094.	7.9	126
15	A Signal-Processing Adaptive Algorithm for Selective Current Harmonic Cancellation in Active Power Filters. IEEE Transactions on Industrial Electronics, 2009, 56, 2829-2840.	7.9	122
16	A Generic Open-Loop Algorithm for Three-Phase Grid Voltage/Current Synchronization With Particular Reference to Phase, Frequency, and Amplitude Estimation. IEEE Transactions on Power Electronics, 2009, 24, 94-107.	7.9	117
17	Performance Improvement of a Prefiltered Synchronous-Reference-Frame PLL by Using a PID-Type Loop Filter. IEEE Transactions on Industrial Electronics, 2014, 61, 3469-3479.	7.9	116
18	Comparison of the FPGA Implementation of Two Multilevel Space Vector PWM Algorithms. IEEE Transactions on Industrial Electronics, 2008, 55, 1537-1547.	7.9	114

#	Article	IF	Citations
19	Inducverters: PLL-Less Converters With Auto-Synchronization and Emulated Inertia Capability. IEEE Transactions on Smart Grid, 2016, 7, 1660-1674.	9.0	109
20	Small-Signal Modeling, Stability Analysis and Design Optimization of Single-Phase Delay-Based PLLs. IEEE Transactions on Power Electronics, 2016, 31, 3517-3527.	7.9	99
21	Three-Phase PLLs With Fast Postfault Retracking and Steady-State Rejection of Voltage Unbalance and Harmonics by Means of Lead Compensation. IEEE Transactions on Power Electronics, 2011, 26, 85-97.	7.9	94
22	Multilevel Multiphase Space Vector PWM Algorithm With Switching State Redundancy. IEEE Transactions on Industrial Electronics, 2009, 56, 792-804.	7.9	91
23	A Control Algorithm for Electric Vehicle Fast Charging Stations Equipped With Flywheel Energy Storage Systems. IEEE Transactions on Power Electronics, 2016, 31, 6674-6685.	7.9	86
24	Effect of state feedback coupling and system delays on the transient performance of stand-alone VSI with LC output filter. IEEE Transactions on Industrial Electronics, 2016, , 1-1.	7.9	82
25	Leakage current evaluation of a singlephase transformerless PV inverter connected to the grid. IEEE Applied Power Electronics Conference and Exposition, 2007, , .	0.0	81
26	Analysis and Comparison of Notch Filter and Capacitor Voltage Feedforward Active Damping Techniques for LCL Grid-Connected Converters. IEEE Transactions on Power Electronics, 2019, 34, 3958-3972.	7.9	81
27	A Method for Identification of the Equivalent Inductance and Resistance in the Plant Model of Current-Controlled Grid-Tied Converters. IEEE Transactions on Power Electronics, 2015, 30, 7245-7261.	7.9	72
28	Tuning of Synchronous-Frame PI Current Controllers in Grid-Connected Converters Operating at a Low Sampling Rate by MIMO Root Locus. IEEE Transactions on Industrial Electronics, 2015, 62, 5006-5017.	7.9	64
29	Dynamic Assessment of Sourceâ€“Load Interactions in Marine MVDC Distribution. IEEE Transactions on Industrial Electronics, 2017, 64, 4372-4381.	7.9	57
30	Multidimensional Two-Level Multiphase Space Vector PWM Algorithm and Its Comparison With Multifrequency Space Vector PWM Method. IEEE Transactions on Industrial Electronics, 2011, 58, 465-475.	7.9	55
31	Space-Vector PWM With Common-Mode Voltage Elimination for Multiphase Drives. IEEE Transactions on Power Electronics, 2016, 31, 8151-8161.	7.9	55
32	A Systematic Approach to Design High-Order Phase-Locked Loops. IEEE Transactions on Power Electronics, 2015, 30, 2885-2890.	7.9	53
33	An Optimized Implementation of Phase Locked Loops for Grid Applications. IEEE Transactions on Instrumentation and Measurement, 2011, 60, 3110-3119.	4.7	51
34	Grid-synchronization methods for power converters. , 2009, , .		48
35	Transient response evaluation of stationaryâ€frame resonant current controllers for gridâ€connected applications. IET Power Electronics, 2014, 7, 1714-1724.	2.1	45
36	A Technique to Estimate the Equivalent Loss Resistance of Grid-Tied Converters for Current Control Analysis and Design. IEEE Transactions on Power Electronics, 2015, 30, 1747-1761.	7.9	44

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37	Frequency tracking of digital resonant filters for control of power converters connected to public distribution systems. IET Power Electronics, 2011, 4, 454.	2.1	43
38	Discrete-Time Domain Modeling of Voltage Source Inverters in Standalone Applications: Enhancement of Regulators Performance by Means of Smith Predictor. IEEE Transactions on Power Electronics, 2017, 32, 8100-8114.	7.9	39
39	Carrier-Based PWM Equivalent to Multilevel Multiphase Space Vector PWM Techniques. IEEE Transactions on Industrial Electronics, 2020, 67, 5220-5231.	7.9	37
40	A Root-Locus Design Methodology Derived From the Impedance/Admittance Stability Formulation and Its Application for LCL Grid-Connected Converters in Wind Turbines. IEEE Transactions on Power Electronics, 2017, 32, 8218-8228.	7.9	36
41	Digital Parameterizable VHDL Module for Multilevel Multiphase Space Vector PWM. IEEE Transactions on Industrial Electronics, 2011, 58, 3946-3957.	7.9	32
42	Multilevel Multiphase Feedforward Space-Vector Modulation Technique. IEEE Transactions on Industrial Electronics, 2010, 57, 2066-2075.	7.9	31
43	Input-Admittance Passivity Compliance for Grid-Connected Converters With an LCL Filter. IEEE Transactions on Industrial Electronics, 2019, 66, 1089-1097.	7.9	31
44	Stable and Passive High-Power Dual Active Bridge Converters Interfacing MVDC Grids. IEEE Transactions on Industrial Electronics, 2018, 65, 9561-9570.	7.9	28
45	Harmonic current prediction by impedance modeling of grid-tied inverters: A 1.4 MW PV plant case study. International Journal of Electrical Power and Energy Systems, 2017, 93, 30-38.	5.5	26
46	Graphical Diagram for Subspace and Sequence Identification of Time Harmonics in Symmetrical Multiphase Machines. IEEE Transactions on Industrial Electronics, 2014, 61, 29-42.	7.9	25
47	Multivariable High-Frequency Input-Admittance of Grid-Connected Converters: Modeling, Validation, and Implications on Stability. IEEE Transactions on Industrial Electronics, 2019, 66, 6505-6515.	7.9	23
48	Mitigation of voltage sags, imbalances and harmonics in sensitive industrial loads by means of a series power line conditioner. Electric Power Systems Research, 2012, 84, 20-30.	3.6	22
49	Full Discrete Modeling, Controller Design, and Sensitivity Analysis for High-Performance Grid-Forming Converters in Islanded Microgrids. IEEE Transactions on Industry Applications, 2018, 54, 6267-6278.	4.9	21
50	On the discrete-time implementation of resonant controllers for active power filters. , 2009, , .		20
51	Stability Analysis of Multi-Port MVDC Distribution Networks for All-Electric Ships. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2020, 8, 1164-1177.	5.4	18
52	Real-Time implementation of a SPLL for FACTS. Industrial Electronics Society (IECON), Annual Conference of IEEE, 2006, , .	0.0	16
53	Number of switching state vectors and space vectors in multilevel multiphase converters. Electronics Letters, 2009, 45, 524.	1.0	14
54	Harmonic resonances in Wind Power Plants: Modeling, analysis and active mitigation methods. , 2015, , .		14

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55	Open-Loop Power Sharing of Three-Port DC-DC Resonant Converters. , 2019, , .		13
56	Cascaded H-Bridge Multilevel Converter for a High-Power Medium-Voltage Impedance-Admittance Measurement Unit. , 2018, , .		11
57	Tunning of Phase Locked Loops for Power Converters under Distorted Utility Conditions. , 2009, , .		10
58	A fast, accurate and robust algorithm to detect fundamental and harmonic sequences. , 2010, , .		10
59	Correction to "Effects of Discretization Methods on the Performance of Resonant Controllers" [Jul 10 1692-1712]. IEEE Transactions on Power Electronics, 2012, 27, 4976-4976.	7.9	10
60	New algorithm for grid synchronization based on Fourier series. , 2007, , .		9
61	Torque ripple minimization in surface-mounted PM drives by means of PI + multi-resonant controller in synchronous reference frame. , 2010, , .		8
62	SPLL based control for active filter with reactive power compensation. IEEE Applied Power Electronics Conference and Exposition, 2007, , .	0.0	7
63	Transient response evaluation of resonant controllers for AC drives. , 2012, , .		7
64	Four-dimensional space vector PWM algorithm for multilevel four-leg converters. , 2008, , .		6
65	Harmonic Identification Methods Based on Moving Average Filters for Active Power Filters. , 2008, , .		6
66	Harmonic Identification Algorithms Based on DCT for Power Quality Applications. ETRI Journal, 2010, 32, 33-43.	2.0	6
67	Geometric Analysis and Manufacturing Considerations for Optimizing the Characteristics of a Twisted Pair. IEEE Transactions on Electronics Packaging Manufacturing, 2009, 32, 22-31.	1.4	5
68	Design for passivity in the Z-domain for LCL grid-connected converters. , 2016, , .		5
69	Novel Harmonic Identification Algorithm based on Fourier Correlation and Moving Average Filtering. , 2007, , .		4
70	WLSE for fast, accurate and robust generation of references in power converter applications. , 2010, , .		4
71	Multilevel multiphase space vector PWM algorithm with switching state redundancy applied to three-phase four-leg converters. , 2010, , .		4
72	Correction to "High Performance Digital Resonant Controllers Implemented With Two Integrators" [Feb 11 563-576]. IEEE Transactions on Power Electronics, 2012, 27, 4357-4357.	7.9	4

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73	Ineffectiveness of orthogonal axes cross-coupling decoupling technique in dual sequence current control. , 2013, , .		4
74	Interactions between bandwidth limited CPLs and MMC based MVDC supply. , 2017, , .		4
75	Harmonic detection methods for active power filters based on discrete cosine transform and dithering. , 2009, , .		3
76	Harmonic subspace and sequence mapping in a series-connected six-phase two-motor drive. , 2012, , .		3
77	Inner current loop analysis and design based on resonant regulators for isolated microgrids. , 2015, , .		3
78	Enhancement of current and voltage controllers performance by means of lead compensation and anti-windup for islanded microgrids. , 2016, , .		3
79	Multiport energy gateway. IET Electric Power Applications, 2019, 13, 1524-1534.	1.8	3
80	Evolutive algorithm for power flow optimization. , 2009, , .		2
81	Control algorithm for a SSSC. , 2009, , .		2
82	Performance enhancement for digital implementations of resonant controllers. , 2010, , .		2
83	Transient response assessment of vector PI current controllers in renewable energy applications. , 2012, , .		2
84	A simple tuning method aimed at optimal settling time and overshoot for synchronous PI current control in electric machines. , 2013, , .		2
85	Conformal mapping of impedance stability models for system-level dynamics assessments. , 2017, , .		2
86	An Approach to Increase the Bandwidth of Current Controllers for Grid-tied Converters with LCL Filter. , 2019, , .		2
87	Reference generation techniques for active power line conditioners. , 2008, , .		1
88	Multilevel multiphase space vector PWM algorithm with switching state redundancy applied to three-phase converters. , 2009, , .		1
89	Control algorithm for a SSSC with a predictive synchronization algorithm. , 2009, , .		1
90	Electrical Design Automation of a Twisted Pair to Optimize the Manufacturing Process. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2011, 1, 1269-1281.	2.5	1

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91	Multiphase space vector control modulation technique for voltage source converters. , 2012, , .		1
92	A method to identify the equivalent loss resistance of voltage source converters for current control design. , 2013, , .		1
93	Enhanced current and voltage regulators for stand-alone applications. , 2016, , .		1
94	Marine MVDC multi-phase multi-pulse supply. , 2017, , .		1
95	Control Method for Distortionless Zero-Cross in Active Unity Power Factor Rectifiers. IEEE Transactions on Power Electronics, 2022, 37, 14096-14102.	7.9	1
96	Assessment of synchronous-frame PI current control dynamics by means of multivariable analysis with time-delays consideration. , 2013, , .		0
97	Estimation of the plant time constant of current-controlled voltage source converters. , 2014, , .		0
98	Voltage and current regulators design of power converters in islanded microgrids based on state feedback decoupling. , 2016, , .		0
99	State feedback decoupling with in-loop lead compensator in stand-alone VSIs. , 2016, , .		0
100	A root-locus design methodology derived from the impedance stability criterion and its application for LCL grid-connected converters. , 2016, , .		0
101	Impedance stability assessment of active damping strategies for LCL grid-connected converters. , 2017, , .		0