

# Christian A Rojas

## List of Publications by Year in descending order

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69  
papers

4,352  
citations

257450

24  
h-index

414414

32  
g-index

69  
all docs

69  
docs citations

69  
times ranked

2612  
citing authors

#	ARTICLE	IF	CITATIONS
1	State of the Art of Finite Control Set Model Predictive Control in Power Electronics. IEEE Transactions on Industrial Informatics, 2013, 9, 1003-1016.	11.3	1,425
2	High-Performance Control Strategies for Electrical Drives: An Experimental Assessment. IEEE Transactions on Industrial Electronics, 2012, 59, 812-820.	7.9	408
3	Predictive Torque and Flux Control Without Weighting Factors. IEEE Transactions on Industrial Electronics, 2013, 60, 681-690.	7.9	346
4	Multiobjective Switching State Selector for Finite-States Model Predictive Control Based on Fuzzy Decision Making in a Matrix Converter. IEEE Transactions on Industrial Electronics, 2013, 60, 589-599.	7.9	165
5	A Comparative Assessment of Model Predictive Current Control and Space Vector Modulation in a Direct Matrix Converter. IEEE Transactions on Industrial Electronics, 2013, 60, 578-588.	7.9	132
6	Predictive Current Control With Input Filter Resonance Mitigation for a Direct Matrix Converter. IEEE Transactions on Power Electronics, 2011, 26, 2794-2803.	7.9	130
7	Current Control for an Indirect Matrix Converter With Filter Resonance Mitigation. IEEE Transactions on Industrial Electronics, 2012, 59, 71-79.	7.9	129
8	Multiobjective Fuzzy-Decision-Making Predictive Torque Control for an Induction Motor Drive. IEEE Transactions on Power Electronics, 2017, 32, 6245-6260.	7.9	92
9	Switching Frequency Regulation for FCS-MPC Based on a Period Control Approach. IEEE Transactions on Industrial Electronics, 2018, 65, 5764-5773.	7.9	92
10	Experimental Validation of a Single DC Bus Cascaded H-Bridge Multilevel Inverter for Multistring Photovoltaic Systems. IEEE Transactions on Industrial Electronics, 2017, 64, 930-934.	7.9	91
11	Predictive Control of an Induction Machine Fed by a Matrix Converter With Increased Efficiency and Reduced Common-Mode Voltage. IEEE Transactions on Energy Conversion, 2014, 29, 473-485.	5.2	81
12	DC-DC MMC for HVdc Grid Interface of Utility-Scale Photovoltaic Conversion Systems. IEEE Transactions on Industrial Electronics, 2018, 65, 352-362.	7.9	79
13	Control of a Matrix Converter With Imposed Sinusoidal Source Currents. IEEE Transactions on Industrial Electronics, 2012, 59, 1939-1949.	7.9	78
14	Leakage Current Attenuation of a Three-Phase Cascaded Inverter for Transformerless Grid-Connected PV Systems. IEEE Transactions on Industrial Electronics, 2018, 65, 676-686.	7.9	77
15	Leakage Current Mitigation in Photovoltaic String Inverter Using Predictive Control With Fixed Average Switching Frequency. IEEE Transactions on Industrial Electronics, 2017, 64, 9344-9354.	7.9	73
16	Simple Carrier-Based PWM Technique for a Three-to-Nine-Phase Direct AC-AC Converter. IEEE Transactions on Industrial Electronics, 2011, 58, 5014-5023.	7.9	65
17	Full Predictive Cascaded Speed and Current Control of an Induction Machine. IEEE Transactions on Energy Conversion, 2016, 31, 1059-1067.	5.2	58
18	Review of predictive control methods to improve the input current of an indirect matrix converter. IET Power Electronics, 2014, 7, 886-894.	2.1	55

#	ARTICLE	IF	CITATIONS
19	Imposed Sinusoidal Source and Load Currents for an Indirect Matrix Converter. IEEE Transactions on Industrial Electronics, 2012, 59, 3427-3435.	7.9	51
20	On the Impact of Transients on Multistep Model Predictive Control for Medium-Voltage Drives. IEEE Transactions on Power Electronics, 2019, 34, 8342-8355.	7.9	48
21	Enhanced Switching Frequency Control in FCS-MPC for Power Converters. IEEE Transactions on Industrial Electronics, 2021, 68, 2470-2479.	7.9	48
22	Methods of source current reference generation for predictive control in a direct matrix converter. IET Power Electronics, 2013, 6, 894-901.	2.1	44
23	Binary Search Based Flexible Power Point Tracking Algorithm for Photovoltaic Systems. IEEE Transactions on Industrial Electronics, 2021, 68, 5909-5920.	7.9	39
24	Model predictive control of three-phase four-leg neutral-point-clamped inverters. , 2010, , .		38
25	Medium-Voltage Power Converter Interface for Multigenerator Marine Energy Conversion Systems. IEEE Transactions on Industrial Electronics, 2017, 64, 1061-1070.	7.9	33
26	Predictive control of source and load currents in a direct matrix converter. , 2010, , .		28
27	Model predictive control of a Doubly Fed Induction Generator with an Indirect Matrix Converter. , 2010, , .		28
28	A simple and effective solution for superior performance in two-level four-leg voltage source inverters: Predictive voltage control. , 2010, , .		25
29	Predictive control of a direct matrix converter operating under an unbalanced AC source. , 2010, , .		25
30	Predictive current control with reactive power minimization in an indirect matrix converter. , 2010, , .		23
31	Predictive current control of three-phase two-level four-leg inverter. , 2010, , .		23
32	Comments on "Predictive Torque Control of Induction Machines Based on State-Space Models" IEEE Transactions on Industrial Electronics, 2014, 61, 1635-1638.	7.9	22
33	Testing Evidence and Analysis of Rooftop PV Inverters Response to Grid Disturbances. IEEE Journal of Photovoltaics, 2020, 10, 1882-1891.	2.5	20
34	Predictive control with active damping in a Direct Matrix Converter. , 2009, , .		19
35	Multiobjective Fuzzy Predictive Torque Control of an induction machine fed by a 3L-NPC inverter. , 2015, , .		17
36	Predictive torque and flux control of an induction machine fed by an indirect matrix converter with reactive power minimization. , 2010, , .		16

#	ARTICLE	IF	CITATIONS
37	Multiobjective Fuzzy Predictive Torque Control of an induction motor drive. , 2015, , .		15
38	Predictive torque and flux control of an induction machine fed by an indirect matrix converter. , 2010, , .		14
39	A Controller Improving Photovoltaic Voltage Regulation in the Single-Stage Single-Phase Inverter. IEEE Transactions on Power Electronics, 2022, 37, 354-363.	7.9	14
40	Unlocking the Hidden Capacity of the Electrical Grid Through Smart Transformer and Smart Transmission. Proceedings of the IEEE, 2023, 111, 421-437.	21.8	14
41	Five-Level T-type Cascade Converter for Rooftop Grid-Connected Photovoltaic Systems. Energies, 2019, 12, 1743.	3.1	13
42	Photovoltaic Green Hydrogen Challenges and Opportunities: A Power Electronics Perspective. IEEE Industrial Electronics Magazine, 2022, 16, 31-41.	2.6	13
43	A multiobjective ranking based finite states model predictive control scheme applied to a direct matrix converter. , 2010, , .		12
44	Comparison of single-phase T-type multilevel converters for grid-connected PV systems. , 2015, , .		12
45	Predictive current control applied to a matrix converter: An assessment with the direct transfer function approach. , 2010, , .		11
46	A comparison of discrete-time models for model predictive control of induction motor drives. , 2015, , .		11
47	Power Production Losses Study by Frequency Regulation in Weak-Grid-Connected Utility-Scale Photovoltaic Plants. Energies, 2016, 9, 317.	3.1	11
48	Leakage Current Elimination PWM Method for Fault-Tolerant String H-NPC PV Inverter. , 2019, , .		11
49	Application of fuzzy decision making to the switching state selection in the predictive control of a Direct Matrix Converter. , 2011, , .		8
50	An Operating Condition-Based Scheme to Alternate Between Control Strategies for Improved Steady-State and Transient Behavior. IEEE Transactions on Industrial Informatics, 2015, 11, 1246-1254.	11.3	8
51	Sub-modular Power Optimizers Based on Partial Power Converters for Utility Scale PV Plants. , 2019, , .		8
52	Five-level H-bridge NPC central photovoltaic inverter with open-end winding grid connection. , 2014, , .		7
53	Predictive control of an H-NPC converter for single-phase rooftop photovoltaic systems. , 2015, , .		7
54	Dealing with Suboptimality in Multistep Model Predictive Control for Transient Operations. , 2019, , .		7

#	ARTICLE	IF	CITATIONS
55	A simple modulation scheme for a regenerative Cascaded Matrix Converter. , 2011, , .		6
56	Cascaded predictive speed control. , 2014, , .		5
57	Cascade-free model predictive control of a grid-tie multilevel photovoltaic system. , 2016, , .		4
58	Harmonic interaction modelling of multiple utility-interactive multilevel photovoltaic systems. , 2017, , .		4
59	Instantaneous Zero Sequence Voltage for Grid Energy Balancing Under Unbalanced Power Generation. , 2019, , .		3
60	Photovoltaic DC-DC converter for direct power interface to copper electrorefining process. , 2015, , .		2
61	Multiobjective Predictive Control of a three-phase seven-level cascaded H-bridge converter for grid-connected photovoltaic systems. , 2015, , .		2
62	Impedance norton modelling of utility-interactive multilevel photovoltaic systems. , 2017, , .		2
63	A simple modulation scheme for a three-phase direct matrix converter. , 2012, , .		1
64	Reactive power control using a carrier-based modulation for Cascaded Matrix Converter. , 2013, , .		1
65	Leakage current reduction of transformerless three-phase cascaded multilevel PV inverter. , 2015, , .		1
66	Finite control set model predictive control assisted by a linear controller for true parameter uncertainty compensation. , 2017, , .		1
67	Model Predictive Control of a Multi-String LCL- Type Grid-Connected H -NPC PV Converter. , 2018, , .		1
68	Current Control of Interleaved DC-DC Converter Considering a Current Dependent Inductance. , 2019, , .		0
69	FCS Model Predictive Torque Control with Switching Period Tracking for EV Powertrains. , 2020, , .		0