

Ramon Costa Castell³

List of Publications by Year in descending order

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157
papers

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164
docs citations

164
times ranked

1742
citing authors

#	ARTICLE	IF	CITATIONS
1	Fuel Cell Module Control Based on Switched/Time-Based Adaptive Super-Twisting Algorithm: Design and Experimental Validation. IEEE Transactions on Control Systems Technology, 2023, 31, 434-441.	3.2	5
2	On Addressing the Security and Stability Issues Due to False Data Injection Attacks in DC Microgrids: An Adaptive Observer Approach. IEEE Transactions on Power Electronics, 2022, 37, 2801-2814.	5.4	26
3	Adaptive Nonlinear Parameter Estimation for a Proton Exchange Membrane Fuel Cell. IEEE Transactions on Power Electronics, 2022, 37, 9012-9023.	5.4	13
4	Addressing the relative degree restriction in nonlinear adaptive observers: A high-gain observer approach. Journal of the Franklin Institute, 2022, 359, 3857-3882.	1.9	2
5	Energy Management Strategies for Hybrid Energy Storage Systems Based on Filter Control: Analysis and Comparison. Electronics (Switzerland), 2022, 11, 1631.	1.8	12
6	Grid Congestion Mitigation and Battery Degradation Minimisation Using Model Predictive Control in PV-Based Microgrid. IEEE Transactions on Energy Conversion, 2021, 36, 1500-1509.	3.7	18
7	Adaptive Estimation of Time-Varying Parameters With Application to Roto-Magnet Plant. IEEE Transactions on Systems, Man, and Cybernetics: Systems, 2021, 51, 731-741.	5.9	45
8	An Interactive Software Tool to Learn/Teach Robust Closed-Loop Shaping Control Systems Design. IEEE Access, 2021, 9, 125805-125821.	2.6	1
9	Herramientas para la docencia de control digital en grados de ingenierÃa. RIAI - Revista Iberoamericana De Automatica E Informatica Industrial, 2021, 18, 193.	0.6	5
10	Un enfoque interactivo para el anÃlisis y diseÃ±o de sistemas de control utilizando el mÃ©todo del lugar de las raÃces. RIAI - Revista Iberoamericana De Automatica E Informatica Industrial, 2021, 18, 176.	0.6	4
11	Nonlinear adaptive observation of the liquid water saturation in polymer electrolyte membrane fuel cells. Journal of Power Sources, 2021, 492, 229641.	4.0	21
12	Industrial Robots Fuel Cell Based Hybrid Power-Trains: A Comparison between Different Configurations. Electronics (Switzerland), 2021, 10, 1431.	1.8	4
13	Control no lineal adaptativo con identificaciÃ³n dispersa. , 2021, , 365-372.		0
14	Detection and Mitigation of False Data in Cooperative DC Microgrids With Unknown Constant Power Loads. IEEE Transactions on Power Electronics, 2021, 36, 9565-9577.	5.4	44
15	An Analysis of Multi Objective Energy Scheduling in PV-BESS System Under Prediction Uncertainty. IEEE Transactions on Energy Conversion, 2021, 36, 2276-2286.	3.7	19
16	Vanadium Redox Flow Battery State of Charge Estimation Using a Concentration Model and a Sliding Mode Observer. IEEE Access, 2021, 9, 72368-72376.	2.6	22
17	Power Quality Improvement through a UPQC and a Resonant Observer-Based MIMO Control Strategy. Energies, 2021, 14, 6938.	1.6	3
18	Set-based Adaptive Parameter Estimation for a Class of Systems with Nonlinear Parametrization. , 2021, , ,		0

#	ARTICLE	IF	CITATIONS
19	Flow controlling tuning for the voltage of a redox flow battery considering the effect of overpotentials. , 2021, , .		1
20	Combined heat and power using high-temperature proton exchange membrane fuel cells for housing facilities. , 2021, , .		0
21	An adaptive power split strategy with a load disturbance compensator for fuel cell/supercapacitor powertrains. Journal of Energy Storage, 2021, 44, 103341.	3.9	15
22	Library-based adaptive observation through a sparsity-promoting adaptive observer. , 2021, , .		0
23	SOC and diffusion rate estimation in redox flow batteries: An I&l-based high-gain observer approach. , 2021, , .		3
24	On state-estimation in weakly-observable scenarios and implicitly regularized observers. , 2021, , .		1
25	Robust Hâž Design for Resonant Control in a CVCF Inverter Application over Load Uncertainties. Electronics (Switzerland), 2020, 9, 66.	1.8	3
26	Robust Repetitive Control of Power Inverters for Standalone Operation in DG Systems. IEEE Transactions on Energy Conversion, 2020, 35, 237-247.	3.7	33
27	Voltage Hâž Control of a Vanadium Redox Flow Battery. Electronics (Switzerland), 2020, 9, 1567.	1.8	14
28	Chattering free sliding mode observer estimation of liquid water fraction in proton exchange membrane fuel cells. Journal of the Franklin Institute, 2020, 357, 13816-13833.	1.9	12
29	Temperature Control for a Proton-Exchange Membrane Fuel Cell System with Unknown Dynamic Compensations. Complexity, 2020, 2020, 1-14.	0.9	5
30	Redox Flow Batteries: A Literature Review Oriented to Automatic Control. Energies, 2020, 13, 4514.	1.6	61
31	Pollutant Emissions and Combustion Efficiency Assessment of Engines Using Biodiesel. Applied Sciences (Switzerland), 2020, 10, 8646.	1.3	7
32	A Model Predictive Control-Based Energy Management Scheme for Hybrid Storage System in Islanded Microgrids. IEEE Access, 2020, 8, 97809-97822.	2.6	60
33	Optimal Energy Management in a Standalone Microgrid, with Photovoltaic Generation, Short-Term Storage, and Hydrogen Production. Energies, 2020, 13, 1454.	1.6	36
34	Control-oriented modelling and analysis of a solid oxide fuel cell system. International Journal of Hydrogen Energy, 2020, 45, 20659-20672.	3.8	13
35	PEMFC state and parameter estimation through a high-gain based adaptive observer. IFAC-PapersOnLine, 2020, 53, 5895-5900.	0.5	5
36	Observador de alta ganancia con zona muerta ajustable para estimar la saturaciÃ³n de agua lÃquida en pilas de combustible tipo PEM. RIAI - Revista Iberoamericana De Automatica E Informatica Industrial, 2020, 17, 169.	0.6	25

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37	Adaptive Parameter Estimation-based Observer Design for Nonlinear Systems. , 2020, , .		1
38	An interactive teaching/learning approach to the design of robust linear control systems using the closed-loop shaping methodology. IFAC-PapersOnLine, 2020, 53, 17174-17178.	0.5	3
39	H interactive controller design for teaching purposes. IFAC-PapersOnLine, 2020, 53, 17185-17189.	0.5	2
40	Experimental validation of a continuous-time MCSI algorithm with bounded adaptive gains. Journal of the Franklin Institute, 2019, 356, 5881-5897.	1.9	4
41	Duino-Based Learning (DBL) in Control Engineering Courses. , 2019, , .		0
42	An analysis of energy storage system interaction in a multi objective model predictive control based energy management in DC microgrid. , 2019, , .		6
43	Adaptive Online Parameter Estimation Algorithm of PEM Fuel Cells. , 2019, , .		3
44	An adaptive disturbance rejection control scheme for voltage regulation in DC micro-grids. , 2019, , .		1
45	On Teaching Digital Control Systems in a Generic Engineering Degree. IFAC-PapersOnLine, 2019, 52, 103-108.	0.5	4
46	Reset Control for DC-DC Converters: An Experimental Application. IEEE Access, 2019, 7, 128487-128497.	2.6	9
47	Assessment of Energy Management in a Fuel Cell/Battery Hybrid Vehicle. IEEE Access, 2019, 7, 16110-16122.	2.6	59
48	Real-Time Adaptive Parameter Estimation for a Polymer Electrolyte Membrane Fuel Cell. IEEE Transactions on Industrial Informatics, 2019, 15, 6048-6057.	7.2	30
49	Price and carbon-based energy flexibility of residential heating and cooling loads using model predictive control. Sustainable Cities and Society, 2019, 50, 101579.	5.1	50
50	Optimal Sizing of Storage Elements for a Vehicle Based on Fuel Cells, Supercapacitors, and Batteries. Energies, 2019, 12, 925.	1.6	22
51	Experimental Testing of Variable Speed Heat Pump Control Strategies for Enhancing Energy Flexibility in Buildings. IEEE Access, 2019, 7, 37071-37087.	2.6	32
52	Review of control strategies for improving the energy flexibility provided by heat pump systems in buildings. Journal of Process Control, 2019, 74, 35-49.	1.7	110
53	Estrategia de gesti3n de la energAa en vehAculos elA©ctricos con pila de combustible y sistema de almacenamiento hAbrido utilizando control predictivo econA©mico. Maskay, 2019, 9, 31.	0.2	0
54	Closed-Loop Shaping Linear Control System Design: An Interactive Teaching/Learning Approach [Focus on Education]. IEEE Control Systems, 2019, 39, 58-74.	1.0	16

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55	Teaching, Analyzing, Designing and Interactively Simulating Sliding Mode Control. IEEE Access, 2018, 6, 16783-16794.	2.6	8
56	Configurations of model predictive control to exploit energy flexibility in building thermal loads. , 2018, , .		3
57	Comparison of Different Repetitive Control Architectures: Synthesis and Comparison. Application to VSI Converters. Electronics (Switzerland), 2018, 7, 446.	1.8	3
58	New Interactive Books for Control Education – This work has been partially funded by the IEEE Control	0.5	5
59	The use of interactivity in the controller design: Loop shaping versus closed-loop shaping. IFAC-PapersOnLine, 2018, 51, 334-339.	0.5	3
60	Composite PID Control with Unknown Dynamics Estimator for Rotomagnet Plant. IFAC-PapersOnLine, 2018, 51, 817-822.	0.5	4
61	Grid voltage regulation using a reset PI+CI controller for Energy storage systems. IFAC-PapersOnLine, 2018, 51, 226-231.	0.5	6
62	Chattering Free High Order Sliding Mode Observer for Estimation of Liquid Water Fraction in a Proton Exchange Membrane Fuel Cell. , 2018, , .		1
63	Repetitive Control to Improve Users'™ Thermal Comfort and Energy Efficiency in Buildings. Energies, 2018, 11, 976.	1.6	5
64	Energy Management Strategy for a Bioethanol Isolated Hybrid System: Simulations and Experiments. Energies, 2018, 11, 1362.	1.6	6
65	Reset control of boost converters. , 2018, , .		4
66	Energy management strategy for fuel cell-supercapacitor hybrid vehicles based on prediction of energy demand. Journal of Power Sources, 2017, 360, 419-433.	4.0	98
67	An Interactive and Comprehensive Software Tool to Promote Active Learning in the Loop Shaping Control System Design. IEEE Access, 2017, 5, 10533-10546.	2.6	18
68	Temperature control of open-cathode PEM fuel cells. IFAC-PapersOnLine, 2017, 50, 11088-11093.	0.5	25
69	Autonomous Navigation Control for Quadrotors in Trajectories Tracking. Lecture Notes in Computer Science, 2017, , 287-297.	1.0	4
70	Energy-efficient full-range oscillation analysis of parallel-plate electrostatically actuated MEMS resonators. Nonlinear Dynamics, 2017, 89, 2889-2904.	2.7	1
71	A Novel Energy Management Strategy for Fuel-Cell/Supercapacitor Hybrid Vehicles 1 This work has been supported by the scholarship program BE-CAR of Ministerio de Modernización of Argentina, by the project DPI2015-69286-C3-2-R (MINECO/FEDER) and by the European Commission H2020 under the Fuel Cell and Hydrogen Joint Undertaking project INN-BALANCE #735969.. IFAC-PapersOnLine, 2017, 50, 10052-10057.	0.5	7
72	Different architectures to develop repetitive controllers. IFAC-PapersOnLine, 2017, 50, 13408-13413.	0.5	3

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73	Modeling and control of HTPEMFC based combined heat and power for confort control. , 2017, , .		4
74	Iterative Learning Control Experimental Results in Twin-Rotor Device. Mathematical Problems in Engineering, 2017, 2017, 1-12.	0.6	2
75	Rejection of periodic disturbances using MRAC with minimal controller synthesis. , 2016, , .		0
76	Model-based analysis for the thermal management of open-cathode proton exchange membrane fuel cell systems concerning efficiency and stability. Journal of Process Control, 2016, 47, 201-212.	1.7	35
77	Economic MPC for the energy management of hybrid vehicles including fuel cells and supercapacitors. , 2016, , .		0
78	Hands on laboratory for classical nonlinear control systems: The dead-zone case. , 2016, , .		1
79	On Teaching Model-Based Fault Diagnosis in Engineering Curricula [Lecture Notes]. IEEE Control Systems, 2016, 36, 53-62.	1.0	2
80	An Interactivity-Based Methodology to Support Control Education: How to Teach and Learn Using Simple Interactive Tools [Lecture Notes]. IEEE Control Systems, 2016, 36, 63-76.	1.0	39
81	Nonlinear experiments : a saturation example. IFAC-PapersOnLine, 2015, 48, 200-204.	0.5	1
82	An interactive tool to introduce the waterbed effect. IFAC-PapersOnLine, 2015, 48, 259-264.	0.5	3
83	Precompensated Second Order Repetitive Control of an Active Filter Under Varying Network Frequency. Asian Journal of Control, 2015, 17, 1243-1254.	1.9	8
84	LPV Observer-Based Strategy for Rejection of Periodic Disturbances with Time-Varying Frequency. Mathematical Problems in Engineering, 2015, 2015, 1-9.	0.6	3
85	Power active filter control based on a resonant disturbance observer. IET Power Electronics, 2015, 8, 554-564.	1.5	11
86	Discrete-Time Resonant Observer Based Control for Periodic Signal Rejection. IEEE Latin America Transactions, 2015, 13, 1279-1285.	1.2	5
87	Repetitive control of servo systems with time delays. Robotics and Autonomous Systems, 2014, 62, 319-329.	3.0	36
88	Repetitive model based predictive controller to reject periodic disturbances.. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 11494-11499.	0.4	4
89	Teaching Model-based Fault Detection and Isolation using Project-based Learning on a Three-tank System. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 9026-9031.	0.4	2
90	Optimal anti-windup synthesis for repetitive controllers. Journal of Process Control, 2013, 23, 1149-1158.	1.7	11

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91	Shunt Active Power Filter. Lecture Notes in Control and Information Sciences, 2013, , 101-137.	0.6	0
92	An interactive CAD tool to teach and learn Nyquist criterion. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2013, 46, 55-60.	0.4	4
93	Teaching Cascaded Controllers with a Fuel Cell Plant in a Hands-on Laboratory. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2013, 46, 203-207.	0.4	4
94	Repetitive control to counteract the effect of people on thermal comfort control. , 2013, , .		1
95	Repetitive Control. Lecture Notes in Control and Information Sciences, 2013, , 5-12.	0.6	1
96	Stability Analysis Methods. Lecture Notes in Control and Information Sciences, 2013, , 15-25.	0.6	0
97	Design Methods. Lecture Notes in Control and Information Sciences, 2013, , 27-34.	0.6	0
98	Repetitive Control for Systems with Time-Delays and Application to Robotic Servo Motor. Lecture Notes in Computer Science, 2012, , 377-389.	1.0	0
99	Interactive Tools to Learn Basic Concepts of Nonlinear Systems Linearization Through a Case Study*. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 66-71.	0.4	7
100	Analysis and design of a robust odd-harmonic repetitive controller for an active filter under variable network frequency. Control Engineering Practice, 2012, 20, 895-903.	3.2	13
101	Power factor correction and harmonic compensation using second-order odd-harmonic repetitive control. IET Control Theory and Applications, 2012, 6, 1633.	1.2	48
102	Discrete-time repetitive controller for time-delay systems with disturbance observer. Asian Journal of Control, 2012, 14, 1340-1354.	1.9	19
103	Design and analysis strategies for digital repetitive control systems with time-varying reference/disturbance period. International Journal of Control, 2011, 84, 1209-1222.	1.2	10
104	Repetitive control of an active filter under varying network frequency: Power factor correction. , 2011, , .		1
105	An optimal anti-windup strategy for repetitive control systems. , 2011, , .		2
106	Study of fundamental control concepts through interactive learning objects. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 7286-7291.	0.4	6
107	Stability analysis of digital repetitive control systems under time-varying sampling period. IET Control Theory and Applications, 2011, 5, 29.	1.2	50
108	Digital Repetitive Control under Nonuniform Sampling: An LMI Stability Analysis. Mathematical Problems in Engineering, 2011, 2011, 1-16.	0.6	3

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109	Virtual laboratories on energy management systems: the Hybrid Electric Vehicle case. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2010, 42, 13-18.	0.4	2
110	EJS-Based Laboratory for Learning the Function of the Cardiovascular System. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2010, 42, 19-24.	0.4	0
111	A Virtual/Remote Laboratory to illustrate the Internal Model Principle for periodical signals.. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2010, 42, 7-12.	0.4	1
112	Repetitive controller for time-delay systems based on disturbance observer. IET Control Theory and Applications, 2010, 4, 2391-2404.	1.2	38
113	Adaptive compensation strategy for the tracking/rejection of signals with time-varying frequency in digital repetitive control systems. Journal of Process Control, 2010, 20, 551-558.	1.7	26
114	Odd-harmonic repetitive control of an active filter under varying network frequency: Control design and stability analysis. , 2010, , .		3
115	Second-order odd-harmonic repetitive control and its application to active filter control. , 2010, , .		10
116	Anti-windup schemes comparison for digital repetitive control. , 2010, , .		0
117	Odd-harmonic repetitive control of an active filter under varying network frequency: Practical considerations. , 2010, , .		2
118	Robust high-order repetitive control of an active filter using an odd-harmonic internal model. , 2010, , .		6
119	A repetitive control scheme for distributed solar collector field. International Journal of Control, 2010, 83, 970-982.	1.2	9
120	Using interactive tools to teach/learn Sliding Mode Control. , 2010, , .		3
121	Integración de dispositivos físicos en un laboratorio remoto de control mediante diferentes plataformas: Labview, Matlab y C/C++. RIAI - Revista Iberoamericana De Automatica E Informatica Industrial, 2010, 7, 23-34.	0.6	0
122	Virtual Laboratory for the dissemination of energy management systems. The case of the metropolitan transport system. , 2009, , .		0
123	Disturbance observer based repetitive controller for time-delay systems. , 2009, , .		0
124	Cardiolab : A Virtual Laboratory for the analysis of Human circulatory system. , 2009, , .		1
125	Adaptive compensation strategy for the tracking/rejection of signals with time-varying frequency in digital repetitive control systems. , 2009, , .		2
126	A Passive Repetitive Controller for Discrete-Time Finite-Frequency Positive-Real Systems. IEEE Transactions on Automatic Control, 2009, 54, 800-804.	3.6	13

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127	High-Performance Control of a Single-Phase Shunt Active Filter. IEEE Transactions on Control Systems Technology, 2009, 17, 1318-1329.	3.2	39
128	Digital repetitive control under time-varying sampling period: An LMI stability analysis. , 2009, , .		7
129	Learning Respiratory System Function in BME Studies by Means of a Virtual Laboratory: RespiLab. IEEE Transactions on Education, 2008, 51, 24-34.	2.0	29
130	High Performance Repetitive Control of an Active Filter under Varying Network Frequency. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2008, 41, 3344-3349.	0.4	10
131	A Novel Repetitive Controlled 3-Phase CVCF PWM Inverter for UPS. , 2007, , .		4
132	High Performance Control of a Single-Phase Shunt Active Filter. , 2007, , .		21
133	Resonant Control of a Single-Phase Full-Bridge Unity Power Factor Boost Rectifier. Control Applications (CCA), Proceedings of the IEEE International Conference on, 2007, , .	0.0	6
134	On Preserving Passivity in Sampled-data Linear Systems. European Journal of Control, 2007, 13, 583-590.	1.6	12
135	Digital Repetitive Control of a Three-Phase Four-Wire Shunt Active Filter. IEEE Industrial Electronics Magazine, 2007, 54, 1495-1503.	2.3	177
136	Reply to "concerning "odd-harmonic digital repetitive control of a single-phase current active filter"". IEEE Transactions on Power Electronics, 2006, 21, 1159-1160.	5.4	3
137	USING INTERACTIVE TOOLS TO TEACH AND UNDERSTAND MEMS. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2006, 39, 589-594.	0.4	1
138	RESPILAB : A VIRTUAL LABORATORY FOR THE ANALYSIS OF HUMAN RESPIRATORY CONTROL SYSTEM. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2006, 39, 452-457.	0.4	2
139	A repetitive controller for discrete-time passive systems. Automatica, 2006, 42, 1605-1610.	3.0	20
140	On preserving passivity in sampled-data linear systems. , 2006, , .		22
141	A New Passive Repetitive Controller For Discrete-Time Finite-Frequency Positive-Real Systems. , 2006, , .		7
142	Digital repetitive plug-in controller for odd-harmonic periodic references and disturbances. Automatica, 2005, 41, 153-157.	3.0	107
143	Demonstration of the Internal Model Principle by Digital Repetitive Control of an Educational Laboratory Plant. IEEE Transactions on Education, 2005, 48, 73-80.	2.0	76
144	Odd-Harmonic Digital Repetitive Control of a Single-Phase Current Active Filter. IEEE Transactions on Power Electronics, 2004, 19, 1060-1068.	5.4	193

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145	A Repetitive-PD Controller for a Low Order Industrial Plant. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2000, 33, 31-36.	0.4	3
146	Singularity Characterization of DAE Systems Appearing in Constrained Robotic Systems. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 1997, 30, 711-716.	0.4	0
147	Understanding workspace structure of multi-robot systems. , 0, , .		2
148	Digital control of a single-phase shunt active filter. , 0, , .		5
149	On Discretizing Linear Passive Controllers. , 0, , .		1
150	Adaptive Estimation of Time-Varying Parameters With Application to Roto-Magnet Plant. , 0, .		1
151	Uso de pilas de combustible PEM de alta temperatura en una aplicaci3n de cogeneraci3n para aplicaciones de confort. , 0, , .		0
152	Duino-based learning (DBL): un proyecto para facilitar el uso de Arduino y MATLAB. , 0, , .		0
153	Observaci3n de la fracci3n de agua l3quida en pilas de combustible tipo PEM de c3todo abierto. , 0, , .		0
154	Construcci3n y modelado de un prototipo fan & plate para pr3cticas de control autom3tico. , 0, , .		0
155	Implementaci3n de controladores en Arduino mediante Simulink. , 0, , .		0
156	Una estrategia de control mediante observadores para la temperatura en edificio de oficinas. , 0, , .		0
157	MPC como estrategia de gesti3n energ3tica para un veh3culo h3brido el3ctrico. , 0, , .		0