

Manuel Velasco

List of Publications by Year in descending order

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79
papers

1,095
citations

471509

17
h-index

501196

28
g-index

80
all docs

80
docs citations

80
times ranked

867
citing authors

#	ARTICLE	IF	CITATIONS
1	Managing Quality-of-Control in Network-Based Control Systems by Controller and Message Scheduling Co-Design. IEEE Transactions on Industrial Electronics, 2004, 51, 1159-1167.	7.9	87
2	Secondary Switched Control With no Communications for Islanded Microgrids. IEEE Transactions on Industrial Electronics, 2017, 64, 8534-8545.	7.9	77
3	Optimal Online Sampling Period Assignment: Theory and Experiments. IEEE Transactions on Control Systems Technology, 2011, 19, 902-910.	5.2	54
4	On Lyapunov sampling for event-driven controllers. , 2009, , .		48
5	Active Power Sharing and Frequency Regulation in Droop-Free Control for Islanded Microgrids Under Electrical and Communication Failures. IEEE Transactions on Industrial Electronics, 2020, 67, 6461-6472.	7.9	45
6	Control-Driven Tasks: Modeling and Analysis. , 2008, , .		42
7	Comparative study of reactive power control methods for photovoltaic inverters in low-voltage grids. IET Renewable Power Generation, 2016, 10, 310-318.	3.1	42
8	Runtime Allocation of Optional Control Jobs to a Set of CAN-Based Networked Control Systems. IEEE Transactions on Industrial Informatics, 2010, 6, 503-520.	11.3	41
9	Quality-of-Control Management in Overloaded Real-Time Systems. IEEE Transactions on Computers, 2007, 56, 253-266.	3.4	40
10	The One-Shot Task Model for Robust Real-Time Embedded Control Systems. IEEE Transactions on Industrial Informatics, 2008, 4, 164-174.	11.3	35
11	Draco: Efficient Resource Management for Resource-Constrained Control Tasks. IEEE Transactions on Computers, 2009, 58, 90-105.	3.4	33
12	Self-triggered networked control systems: An experimental case study. , 2010, , .		29
13	Impact of Clock Drifts on Communication-Free Secondary Control Schemes for Inverter-Based Islanded Microgrids. IEEE Transactions on Industrial Electronics, 2018, 65, 4739-4749.	7.9	29
14	Design of an Embedded Control System Laboratory Experiment. IEEE Transactions on Industrial Electronics, 2010, 57, 3297-3307.	7.9	27
15	Simulation study of a remote wireless path tracking control with delay estimation for an autonomous guided vehicle. International Journal of Advanced Manufacturing Technology, 2011, 52, 751-761.	3.0	25
16	Performance Evaluation of Secondary Control Policies with Respect to Digital Communications Properties in Inverter-based Islanded Microgrids. IEEE Transactions on Smart Grid, 2016, , 1-1.	9.0	24
17	Performing Flexible Control on Low-Cost Microcontrollers Using a Minimal Real-Time Kernel. IEEE Transactions on Industrial Informatics, 2008, 4, 125-133.	11.3	23
18	Local Frequency Restoration for Droop-Controlled Parallel Inverters in Islanded Microgrids. IEEE Transactions on Energy Conversion, 2019, 34, 1232-1241.	5.2	22

#	ARTICLE	IF	CITATIONS
19	Analysis of the Effect of Clock Drifts on Frequency Regulation and Power Sharing in Inverter-Based Islanded Microgrids. IEEE Transactions on Power Electronics, 2018, 33, 10363-10379.	7.9	20
20	Local Secondary Control for Inverter-Based Islanded Microgrids With Accurate Active Power Sharing Under High-Load Conditions. IEEE Transactions on Industrial Electronics, 2019, 66, 2529-2539.	7.9	19
21	Qualitative analysis of a one-step finite-horizon boundary for event-driven controllers. , 2011, , .		17
22	Positive-Sequence Voltage Control, Full Negative-Sequence Cancellation, and Current Limitation for Static Compensators. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2021, 9, 6613-6623.	5.4	16
23	A process reference model for managing living labs for ICT innovation: A proposal based on ISO/IEC 15504. Computer Standards and Interfaces, 2013, 36, 33-41.	5.4	15
24	Collaborative Voltage Unbalance Compensation in Islanded AC Microgrids With Grid-Forming Inverters. IEEE Transactions on Power Electronics, 2022, 37, 10499-10513.	7.9	15
25	Integration of strategic management, process improvement and quantitative measurement for managing the competitiveness of software engineering organizations. Software Quality Journal, 2010, 18, 341-359.	2.2	14
26	Droop-free hierarchical control strategy for inverter-based AC microgrids. IET Power Electronics, 2020, 13, 1403-1415.	2.1	14
27	A CAN Application Profile for Control Optimization in Networked Embedded Systems. Industrial Electronics Society (IECON), Annual Conference of IEEE, 2006, , .	0.0	13
28	Maximizing positive sequence voltage support in inductive-resistive grids for distributed generation inverters during voltage sags. , 2016, , .		13
29	Machine-Learning-Based Condition Assessment of Gas Turbinesâ€”A Review. Energies, 2021, 14, 8468.	3.1	13
30	One-step finite horizon boundary with varying control gain for event-driven Networked Control Systems. , 2011, , .		12
31	Analysis of Consensus-Based Islanded Microgrids Subject to Unexpected Electrical and Communication Partitions. IEEE Transactions on Smart Grid, 2019, 10, 5125-5135.	9.0	12
32	Collaborative Voltage Unbalance Elimination in Grid-Connected AC Microgrids With Grid-Feeding Inverters. IEEE Transactions on Power Electronics, 2021, 36, 7189-7201.	7.9	12
33	Toward Flexible Scheduling of Real-Time Control Tasks: Reviewing Basic Control Models. , 2007, , 710-713.		10
34	Control Performance Evaluation of Selected Methods of Feedback Scheduling of Real-time Control Tasks. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2008, 41, 10668-10673.	0.4	9
35	Ten factors that impede improvement of verification and validation processes in software intensive organizations. Software Process Improvement and Practice, 2008, 13, 335-343.	1.1	8
36	Analysis and design of networked control loops with synchronization at the actuation instants. , 2008, , .		8

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37	Experimental evaluation of slack management in real-time control systems: Coordinated vs. self-triggered approach. <i>Journal of Systems Architecture</i> , 2010, 56, 63-74.	4.3	8
38	Resource and performance trade-offs in real-time embedded control systems. <i>Real-Time Systems</i> , 2013, 49, 267-307.	1.3	8
39	Synchronization of local integral controllers for frequency restoration in islanded microgrids. , 2016, , .		8
40	The Optimal Boundary and Regulator Design Problem for Event-Driven Controllers. <i>Lecture Notes in Computer Science</i> , 2009, , 441-444.	1.3	8
41	On the optimal reactive power control for grid-connected photovoltaic distributed generation systems. , 2015, , .		7
42	Optimal-sampling-inspired Self-Triggered control. , 2015, , .		6
43	Negative-sequence voltage elimination for distributed generators in grid-feeding operation mode. <i>IET Power Electronics</i> , 2020, 13, 1764-1774.	2.1	6
44	On the Timing of Discrete Events in Event-Driven Control Systems. <i>Lecture Notes in Computer Science</i> , 2008, , 670-673.	1.3	6
45	Equilibrium sampling interval sequences for event-driven controllers. , 2009, , .		6
46	Consensus for active power sharing and frequency restoration in islanded microgrids subject to drifting clocks. , 2017, , .		5
47	Enabling Grid-Feeding Converters With a Dissonant-Resonant Controller for Negative-Sequence Voltage Elimination. <i>IEEE Transactions on Power Electronics</i> , 2020, 35, 4342-4352.	7.9	5
48	Synchronizing sampling and actuation in the absence of global time in Networked Control Systems. , 2010, , .		4
49	Networked sliding mode control of the double integrator system using the event-driven self-triggered approach. , 2011, , .		4
50	AN OCL-BASED APPROACH TO DERIVE CONSTRAINT TEST CASES FOR DATABASE APPLICATIONS. <i>International Journal of Software Engineering and Knowledge Engineering</i> , 2011, 21, 621-645.	0.8	4
51	Reactive power control for loss minimization in low-voltage distributed generation systems. , 2016, , .		4
52	Control Scheme for Negative-Sequence Voltage Compensation and Current Sharing in Inverter-Based Grid-Connected Microgrids. <i>IEEE Transactions on Power Electronics</i> , 2022, 37, 6556-6567.	7.9	4
53	Automatic generation of domain representations using thesaurus structures. <i>Journal of the Association for Information Science and Technology</i> , 2004, 55, 846-858.	2.6	3
54	Preliminary approach to Lyapunov sampling in CAN-based networked control systems. , 2009, , .		3

#	ARTICLE	IF	CITATIONS
55	Schedulability analysis for CAN-based networked control systems with dynamic bandwidth management. , 2009, , .		3
56	Distributed reactive power control methods to avoid voltage rise in grid-connected photovoltaic power generation systems. , 2013, , .		3
57	An Alternative Discrete-Time Model for Networked Control Systems with time delay less than the sampling period. , 2013, , .		3
58	Performance analysis of frequency restoration for parallel voltage source inverters connected with a realistic communication channel. , 2015, , .		3
59	XBRL formula specification in the multidimensional data model. Information Systems, 2016, 57, 20-37.	3.6	3
60	Complex Power Sharing Is Not Complex. IEEE Transactions on Smart Grid, 2022, 13, 1762-1773.	9.0	3
61	Minimizing control cost in resource-constrained control systems: From feedback scheduling to event-driven control. , 2010, , .		2
62	Lowering traffic without sacrificing performance in Networked Control Systems. , 2011, , .		2
63	Communication-aware consensus for frequency restoration in islanded MicroGrids. , 2016, , .		2
64	Embedding Kalman techniques in the one-shot task model when non-uniform samples are corrupted by noise. , 2010, , .		1
65	Fuzzy observer based Fault Detection for Network Control Systems with Periodic Actuation Tasks. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 1035-1040.	0.4	1
66	On the use of communication infrastructure in distributed power generation: A preliminary case study. , 2012, , .		1
67	Hands-on course in networked control systems. , 2012, , .		1
68	Internet-based control of a ball-and-plate system: A case study of modeling and automatic code generation for networked control systems. , 2014, , .		1
69	LTI ODE-valued neural networks. Applied Intelligence, 2014, 41, 594-605.	5.3	1
70	Non-linear control of a power-factor-correction rectifier with fast dynamic response. , 2016, , .		1
71	Impact of clock drifts on active power sharing and frequency regulation in distributed-averaging secondary control for islanded microgrids. , 2017, , .		1
72	A distributed control for accurate active power sharing in islanded microgrids subject to clock drifts. IET Power Electronics, 2021, 14, 518-530.	2.1	1

#	ARTICLE	IF	CITATIONS
73	Efficient Utilization of Bus Idle Times in CAN-based Networked Control Systems. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2010, 43, 121-126.	0.4	0
74	Mixing local and distributed reactive power control for balancing inverters' effort in grid-connected photovoltaic systems. , 2013, , .		0
75	Toward new controller design paradigms in networked control systems. , 2014, , .		0
76	Analysis of consensus-based active power sharing with respect to network topology in islanded microgrids. , 2017, , .		0
77	Control strategy to maximize the power capability of PV-based industrial microgrids during voltage sags. , 2017, , .		0
78	Effects of clock deviations on the performance of microgrids based on virtual synchronous generators. IET Power Electronics, 2021, 14, 2337-2349.	2.1	0
79	Analyzing Wavelets Components to Perform Face Recognition. Lecture Notes in Computer Science, 2001, , 262-270.	1.3	0