Juan M Herrero

List of Publications by Year
in descending order

58 papers	999 citations	759055 12 h-index	454834 30 g-index
62 all docs	62 docs citations	62 times ranked	809 citing authors

#	Article	IF	Citations
1	A new graphical visualization of n-dimensional Pareto front for decision-making in multiobjective optimization. Information Sciences, 2008, 178, 3908-3924.	4.0	236
2	Model-based predictive control of greenhouse climate for reducing energy and water consumption. Computers and Electronics in Agriculture, 2007, 55, 49-70.	3.7	121
3	New optimal controller tuning method for an AVR system using a simplified Ant Colony Optimization with a new constrained Nelderâ€“Mead algorithm. Applied Soft Computing Journal, 2018, 62, 216-229.	4.1	72
4	Multiobjective evolutionary algorithms for multivariable PI controller design. Expert Systems With Applications, 2012, 39, 7895-7907.	4.4	57
5	Applied Pareto multi-objective optimization by stochastic solvers. Engineering Applications of Artificial Intelligence, 2009, 22, 455-465.	4.3	46
6	Hybrid DE algorithm with adaptive crossover operator for solving real-world numerical optimization problems. , 2011, , .		43
7	Comparison of design concepts in multi-criteria decision-making using level diagrams. Information Sciences, 2013, 221, 124-141.	4.0	40
8	Hole distribution in phononic crystals: Design and optimization. Journal of the Acoustical Society of America, 2009, 125, 3774-3783.	0.5	37
9	Non-linear robust identification of a greenhouse model using multi-objective evolutionary algorithms. Biosystems Engineering, 2007, 98, 335-346.	1.9	36
10	Robust identification of non-linear greenhouse model using evolutionary algorithms. Control Engineering Practice, 2008, 16, 515-530.	3.2	28
11	Optimization of sonic crystal attenuation properties by ev-MOGA multiobjective evolutionary algorithm. Structural and Multidisciplinary Optimization, 2009, 39, 203-215.	1.7	28
12	Well-Distributed Pareto Front by Using the $epsilon hskip-0.9em earrow hskip-0.4em-MOGA$ Evolutionary Algorithm. , 2007, , 292-299.		16
13	Multi-Objective Optimisation-Based Tuning of Two Second-Order Sliding-Mode Controller Variants for DFIGs Connected to Non-Ideal Grid Voltage. Energies, 2019, 12, 3782.	1.6	13
14	A Smart-Distributed Pareto Front Using the ev-MOGA Evolutionary Algorithm. International Journal on Artificial Intelligence Tools, 2014, 23, 1450002.	0.7	12
15	Design and Experimental Validation of the Temperature Control of a PEMFC Stack by Applying Multiobjective Optimization. IEEE Access, 2020, 8, 183324-183343.	2.6	12
16	Non-linear identification of a Peltier cell model using evolutionary multi-objective optimization * *This work was supported by the Ministerio de EconomÃa y Com-petitividad (Spain) [grant number DPI2015-71443-R] and the Universidad PolitÃ©cnica Salesiana (Ecuador) [CB-755-2015]. IFAC-PapersOnLine, 2017, 50, 4448-4453.	0.5	11
17	A Multiobjective Genetic Algorithm for the Localization of Optimal and Nearly Optimal Solutions Which Are Potentially Useful: nevMOGA. Complexity, 2018, 2018, 1-22.	0.9	11
18	Control-Oriented Modeling of the Cooling Process of a PEMFC-Based mu -CHP System. IEEE Access, 2019, 7, 95620-95642.	2.6	11

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19	Interactive tool for analyzing multiobjective optimization results with level diagrams. , 2017, , .		11
20	Design of sound phase diffusers by means of multiobjective optimization approach using ev-MOGA evolutionary algorithm. Structural and Multidisciplinary Optimization, 2016, 53, 861-879.	1.7	10
21	Optimized sound diffusers based on sonic crystals using a multiobjective evolutionary algorithm. Journal of the Acoustical Society of America, 2016, 139, 2807-2814.	0.5	10
22	A Loop Pairing Method for Multivariable Control Systems Under a Multi-Objective Optimization Approach. IEEE Access, 2019, 7, 81994-82014.	2.6	10
23	WH-EA: An Evolutionary Algorithm for Wiener-Hammerstein System Identification. Complexity, 2018, 2018, 1-17.	0.9	9
24	A New Point of View in Multivariable Controller Tuning Under Multiobjective Optimization by Considering Nearly Optimal Solutions. IEEE Access, 2019, 7, 66435-66452.	2.6	9
25	Computing the Mean-Variance-Sustainability Nondominated Surface by ev-MOGA. Complexity, 2019, 2019, 1-12.	0.9	8
26	Evolutionary auto-tuning algorithm for PID controllers. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 631-636.	0.4	7
27	Robust and stable predictive control with bounded uncertainties. Journal of Mathematical Analysis and Applications, 2008, 342, 1003-1014.	0.5	6
28	Non-linear robust identification using evolutionary algorithms. Engineering Applications of Artificial Intelligence, 2008, 21, 1397-1408.	4.3	6
29	Multiobjective Tuning of Robust PID Controllers Using Evolutionary Algorithms. Lecture Notes in Computer Science, 2008, , 515-524.	1.0	6
30	Decision Making Graphical Tool for Multiobjective Optimization Problems. Lecture Notes in Computer Science, 2007, , 568-577.	1.0	6
31	Predictive LPV control of a liquidâ€“gas separation process. Advances in Engineering Software, 2007, 38, 466-474.	1.8	5
32	A Unified Approach for the Identification of Wiener, Hammerstein, and Wienerâ€“Hammerstein Models by Using WH-EA and Multistep Signals. Complexity, 2020, 2020, 1-23.	0.9	5
33	WH-MOEA: A Multi-Objective Evolutionary Algorithm for Wiener-Hammerstein System Identification. A Novel Approach for Trade-Off Analysis Between Complexity and Accuracy. IEEE Access, 2020, 8, 228655-228674.	2.6	5
34	GPC-LPV: a predictive LPV controller based on BMIs. , 0, , .		4
35	Background on Multiobjective Optimization for Controller Tuning. Intelligent Systems, Control and Automation: Science and Engineering, 2017, , 23-58.	0.3	4
36	Considerations on loop pairing in MIMO processes. A multi-criteria analysis * *The authors would like to acknowledge the Spanish Ministry of Economy and Competitiveness for providing funding through the project DPI2015-71443-R. This work has also been supported by the National Council of Scientific and Technological Development of Brazil (CNPq) through the PQ-2/304066/2016-8 grant.. IFAC-PapersOnLine, 2017, 50, 4454-4459.	0.5	4

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37	A Loop Pairing Method for Non-Linear Multivariable Control Systems Under a Multi-Objective Optimization Approach. IEEE Access, 2020, 8, 41262-41281.	2.6	4
38	Modelado y Control de un PÃ©ndulo Invertido Rotatorio Aplicando TÃ©cnicas de OptimizaciÃ³n Multiobjetivo. RIAI - Revista Iberoamericana De Automatica E Informatica Industrial, 2018, 15, 363.	0.6	4
39	High optimization process for increasing the attenuation properties of acoustic metamaterials by means of the creation of defects. Applied Physics Letters, 2008, 93, .	1.5	2
40	Handling control engineer preferences: Getting the most of PI controllers. , 2011, , .		2
41	Using a Multiobjective Approach to Compare Multiple Design Alternativesâ€"An Application to Battery Dynamic Model Tuning. Energies, 2017, 10, 999.	1.6	2
42	Analyzing the Nearly Optimal Solutions in a Multi-Objective Optimization Approach for the Multivariable Nonlinear Identification of a PEM Fuel Cell Cooling System. IEEE Access, 2020, 8, 114361-114377.	2.6	2
43	Multivariable Controller Design for the Cooling System of a PEM Fuel Cell by considering Nearly Optimal Solutions in a Multiobjective Optimization Approach. Complexity, 2020, 2020, 1-17.	0.9	2
44	Multiobjective Optimization Design Procedure for an Aircraftâ€™s Flight Control System. Intelligent Systems, Control and Automation: Science and Engineering, 2017, , 215-227.	0.3	1
45	Tools for the Multiobjective Optimization Design Procedure. Intelligent Systems, Control and Automation: Science and Engineering, 2017, , 59-88.	0.3	1
46	The ACCâ€™1990 Control Benchmark: A Two-Mass-Spring System. Intelligent Systems, Control and Automation: Science and Engineering, 2017, , 147-157.	0.3	1
47	Non-linear robust identification of a lead acid battery model using multiobjective evolutionary algorithms * *This work was partially supported by the Ministerio de EconomÃay Competitividad (Spain) Grants numbers DPI2015-71443-R and FPU15/01652 and by Grant ACIF/2015/079 from the Generalitat Valenciana (Spain). IFAC-PapersOnLine, 2017, 50, 4466-4471.	0.5	1
48	A Comparison of Archiving Strategies for Characterization of Nearly Optimal Solutions under Multi-Objective Optimization. Mathematics, 2021, 9, 999.	1.1	1
49	Nonlinear Robust Identification Using Multiobjective Evolutionary Algorithms. Lecture Notes in Computer Science, 2005, , 231-241.	1.0	1
50	Motivation: Multiobjective Thinking in Controller Tuning. Intelligent Systems, Control and Automation: Science and Engineering, 2017, , 3-21.	0.3	0
51	Multiobjective Optimization Design Procedure for Controller Tuning of a Peltier Cell Process. Intelligent Systems, Control and Automation: Science and Engineering, 2017, , 187-199.	0.3	0
52	Multiobjective Optimization Design Procedure for Controller Tuning of a TRMS Process. Intelligent Systems, Control and Automation: Science and Engineering, 2017, , 201-213.	0.3	0
53	Controller Tuning for Univariable Processes. Intelligent Systems, Control and Automation: Science and Engineering, 2017, , 91-105.	0.3	0
54	Comparing Control Structures from a Multiobjective Perspective. Intelligent Systems, Control and Automation: Science and Engineering, 2017, , 123-144.	0.3	0

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55	An Evolutionary Multiobjective Optimization Approach for HEV Energy Management System. Lecture Notes in Electrical Engineering, 2015, , 345-354.	0.3	0
56	Genetic Algorithm in the Optimization of the Acoustic Attenuation Systems. , 2007, , 614-621.		0
57	Non-linear Robust Identification: Application to a Thermal Process. Lecture Notes in Computer Science, 2007, , 457-466.	1.0	0
58	Application of an input-output pairings selection methodology to control multivariable systems based on multi-objective optimization. , 2021, , .		0