Xavier Blasco

List of Publications by Year
in descending order

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77 papers	1,649 citations	331259 21 h-index	315357 38 g-index
85 all docs	85 docs citations	85 times ranked	1218 citing authors

#	Article	IF	Citations
1	A Comparison of Archiving Strategies for Characterization of Nearly Optimal Solutions under Multi-Objective Optimization. Mathematics, 2021, 9, 999.	1.1	1
2	A Simple Proposal for Including Designer Preferences in Multi-Objective Optimization Problems. Mathematics, 2021, 9, 991.	1.1	1
3	Application of an input-output pairings selection methodology to control multivariable systems based on multi-objective optimization. , 2021, , .		0
4	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
5	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
6	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
7	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
8	Control-Oriented Modeling of the Cooling Process of a PEMFC-Based mu -CHP System. IEEE Access, 2019, 7, 95620-95642.	2.6	11
9	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
10	A Loop Pairing Method for Multivariable Control Systems Under a Multi-Objective Optimization Approach. IEEE Access, 2019, 7, 81994-82014.	2.6	10
11	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
12	Computing Optimal Distances to Pareto Sets of Multi-Objective Optimization Problems in Asymmetric Normed Lattices. Acta Applicandae Mathematicae, 2019, 159, 75-93.	0.5	5
13	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
14	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
15	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
16	Enhancing controllerâ€™s tuning reliability with multi-objective optimisation: From Model in the loop to Hardware in the loop. Engineering Applications of Artificial Intelligence, 2017, 64, 52-66.	4.3	18
17	Motivation: Multiobjective Thinking in Controller Tuning. Intelligent Systems, Control and Automation: Science and Engineering, 2017, , 3-21.	0.3	0
18	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

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19	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
20	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
21	Background on Multiobjective Optimization for Controller Tuning. Intelligent Systems, Control and Automation: Science and Engineering, 2017, , 23-58.	0.3	4
22	Tools for the Multiobjective Optimization Design Procedure. Intelligent Systems, Control and Automation: Science and Engineering, 2017, , 59-88.	0.3	1
23	Controller Tuning for Univariable Processes. Intelligent Systems, Control and Automation: Science and Engineering, 2017, , 91-105.	0.3	0
24	Comparing Control Structures from a Multiobjective Perspective. Intelligent Systems, Control and Automation: Science and Engineering, 2017, , 123-144.	0.3	0
25	The ACCâ€™1990 Control Benchmark: A Two-Mass-Spring System. Intelligent Systems, Control and Automation: Science and Engineering, 2017, , 147-157.	0.3	1
26	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
27	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
28	Using a Multiobjective Approach to Compare Multiple Design Alternativesâ€”An Application to Battery Dynamic Model Tuning. Energies, 2017, 10, 999.	1.6	2
29	Interactive tool for analyzing multiobjective optimization results with level diagrams. , 2017, , .		11
30	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
31	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
32	Asymmetric distances to improve n -dimensional Pareto fronts graphical analysis. Information Sciences, 2016, 340-341, 228-249.	4.0	11
33	Preference driven multi-objective optimization design procedure for industrial controller tuning. Information Sciences, 2016, 339, 108-131.	4.0	23
34	Evolutionary multi-objective optimisation with preferences for multivariable PI controller tuning. Expert Systems With Applications, 2016, 51, 120-133.	4.4	29
35	Multistage procedure for PI controller design of the Boiler Benchmark problem. , 2015, , .		2
36	Spanish Control Engineering Challenge: An Educational Experience. Lecture Notes in Electrical Engineering, 2015, , 721-730.	0.3	1

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37	An Evolutionary Multiobjective Optimization Approach for HEV Energy Management System. Lecture Notes in Electrical Engineering, 2015, , 345-354.	0.3	0
38	A Smart-Distributed Pareto Front Using the ev-MOGA Evolutionary Algorithm. International Journal on Artificial Intelligence Tools, 2014, 23, 1450002.	0.7	12
39	Physical programming for preference driven evolutionary multi-objective optimization. Applied Soft Computing Journal, 2014, 24, 341-362.	4.1	55
40	Controller tuning using evolutionary multi-objective optimisation: Current trends and applications. Control Engineering Practice, 2014, 28, 58-73.	3.2	104
41	Reliability based multiobjective optimization design procedure for PI controller tuning.. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 10263-10268.	0.4	6
42	A stabilizing PID controller sampling procedure for stochastic optimizers. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 8158-8163.	0.4	6
43	Comparison of design concepts in multi-criteria decision-making using level diagrams. Information Sciences, 2013, 221, 124-141.	4.0	40
44	Controller Tuning by Means of Multi-Objective Optimization Algorithms: A Global Tuning Framework. IEEE Transactions on Control Systems Technology, 2013, 21, 445-458.	3.2	58
45	A Multi-objective Optimization Design Methodology for SISO PID Controllers. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 406-411.	0.4	2
46	Multiobjective evolutionary algorithms for multivariable PI controller design. Expert Systems With Applications, 2012, 39, 7895-7907.	4.4	57
47	Explicit predictive control with non-convex polyhedral constraints. Automatica, 2012, 48, 419-424.	3.0	1
48	Hybrid DE algorithm with adaptive crossover operator for solving real-world numerical optimization problems. , 2011, , .		43
49	An empirical study on parameter selection for multiobjective optimization algorithms using Differential Evolution. , 2011, , .		5
50	Maximal closed loop admissible set for linear systems with non-convex polyhedral constraints. Journal of Process Control, 2011, 21, 529-537.	1.7	11
51	Handling control engineer preferences: Getting the most of PI controllers. , 2011, , .		2
52	Modelling preferences in multi-objective engineering design. Engineering Applications of Artificial Intelligence, 2010, 23, 1255-1264.	4.3	27
53	Multiobjective optimization algorithm for solving constrained single objective problems. , 2010, , .		19
54	Design of Continuous Controllers Using a Multiobjective Differential Evolution Algorithm with Spherical Pruning. Lecture Notes in Computer Science, 2010, , 532-541.	1.0	32

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55	Hole distribution in phononic crystals: Design and optimization. Journal of the Acoustical Society of America, 2009, 125, 3774-3783.	0.5	37
56	Genetic algorithms optimization for normalized normal constraint method under Pareto construction. Advances in Engineering Software, 2009, 40, 260-267.	1.8	33
57	Applied Pareto multi-objective optimization by stochastic solvers. Engineering Applications of Artificial Intelligence, 2009, 22, 455-465.	4.3	46
58	Optimization of sonic crystal attenuation properties by ev-MOGA multiobjective evolutionary algorithm. Structural and Multidisciplinary Optimization, 2009, 39, 203-215.	1.7	28
59	Sistema de Control Borroso para el Proceso de RenovaciÃ³n de la Carga en Motores Turbodiesel. RIAI - Revista Iberoamericana De Automatica E Informatica Industrial, 2009, 6, 36-48.	0.6	1
60	An Adaptive Parameter Control for the Differential Evolution Algorithm. Lecture Notes in Computer Science, 2009, , 375-382.	1.0	1
61	Nonlinear predictive control based on local model networks for air management in diesel engines. Control Engineering Practice, 2008, 16, 1399-1413.	3.2	45
62	A new perspective on multiobjective optimization by enhanced normalized normal constraint method. Structural and Multidisciplinary Optimization, 2008, 36, 537-546.	1.7	66
63	Robust identification of non-linear greenhouse model using evolutionary algorithms. Control Engineering Practice, 2008, 16, 515-530.	3.2	28
64	Non-linear robust identification using evolutionary algorithms. Engineering Applications of Artificial Intelligence, 2008, 21, 1397-1408.	4.3	6
65	Integrated multiobjective optimization and a priori preferences using genetic algorithms. Information Sciences, 2008, 178, 931-951.	4.0	54
66	A new graphical visualization of n-dimensional Pareto front for decision-making in multiobjective optimization. Information Sciences, 2008, 178, 3908-3924.	4.0	236
67	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
68	Multiobjective Tuning of Robust PID Controllers Using Evolutionary Algorithms. Lecture Notes in Computer Science, 2008, , 515-524.	1.0	6
69	Multi-objective engineering design using preferences. Engineering Optimization, 2008, 40, 253-269.	1.5	10
70	Non-linear robust identification of a greenhouse model using multi-objective evolutionary algorithms. Biosystems Engineering, 2007, 98, 335-346.	1.9	36
71	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
72	Global and well-distributed Pareto frontier by modified normalized normal constraint methods for bicriterion problems. Structural and Multidisciplinary Optimization, 2007, 34, 197-209.	1.7	22

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73	Diesel engine identification and predictive control using Wiener and Hammerstein models. , 2006, , .		10
74	Multiobjective controller design handling human preferences. Engineering Applications of Artificial Intelligence, 2006, 19, 927-938.	4.3	19
75	Model Based Predictive Control Using Genetic Algorithms. Application to Greenhouses Climate Control. Lecture Notes in Computer Science, 2001, , 457-465.	1.0	2
76	Generalized predictive control using genetic algorithms (GAGPC). Engineering Applications of Artificial Intelligence, 1998, 11, 355-367.	4.3	51
77	MIMO predictive control of temperature and humidity inside a greenhouse using simulated annealing (SA) as optimizer of a multicriteria index. Lecture Notes in Computer Science, 1998, , 271-279.	1.0	2