Efren Mezura-Montes

List of Publications by Year in Descending Order

126 papers	3,716 citations	22 h-index	59 g-index
154 ext. papers	4,407 ext. citations	3.6 avg, IF	5.88 L-index

#	Paper	IF	Citations
126	Pseudo-feasible solutions in evolutionary bilevel optimization: Test problems and performance assessment. *Applied Mathematics and Computation*, **2022**, 412, 126577	2.7	
125	Variable Decomposition for Large-Scale Constrained Optimization Problems Using a Grouping Genetic Algorithm. *Mathematical and Computational Applications*, **2022**, 27, 23	1	0
124	Induction of decision trees as classification models through metaheuristics. *Swarm and Evolutionary Computation*, **2021**, 101006	9.8	3
123	Evolution of Generative Adversarial Networks Using PSO for Synthesis of COVID-19 Chest X-ray Images **2021**,		2
122	Adaptive Controller Tuning Method Based on Online Multiobjective Optimization: A Case Study of the Four-Bar Mechanism. *IEEE Transactions on Cybernetics*, **2021**, 51, 1272-1285	10.2	4
121	A regression tree predictive model for virtual machine startup time in IaaS clouds. *Cluster Computing*, **2021**, 24, 1217-1233	2.1	
120	Variation Operators for Grouping Genetic Algorithms: A Review. *Swarm and Evolutionary Computation*, **2021**, 60, 100796	9.8	11
119	Discriminative learning of bayesian network parameters by differential evolution. *Applied Mathematical Modelling*, **2021**, 93, 244-256	4.5	2
118	A Review on Convolutional Neural Networks Encodings for Neuroevolution. *IEEE Transactions on Evolutionary Computation*, **2021**, 1-1	15.6	1
117	Neuroevolution for Sentiment Analysis in Tweets Written in Mexican Spanish. *Lecture Notes in Computer Science*, **2021**, 101-110	0.9	
116	Smart Grid Optimization with the Advanced jSO Algorithm. *Communications in Computer and Information Science*, **2021**, 171-181	0.3	
115	Full Model Selection Problem and Pipelines for Time-Series Databases: Contrasting Population-Based and Single-point Search Metaheuristics. *Ingenieria E Investigacion*, **2021**, 41, e79308	0.3	
114	Classification of colposcopic images using a multi-breakpoints discretization approach on temporal patterns. *Biomedical Signal Processing and Control*, **2021**, 69, 102918	4.9	0
113	A multi-objective genetic algorithm to find active modules in multiplex biological networks. *PLoS Computational Biology*, **2021**, 17, e1009263	5	2
112	Automated parameter tuning as a bilevel optimization problem solved by a surrogate-assisted population-based approach. *Applied Intelligence*, **2021**, 51, 5978-6000	4.9	1
111	Requirements and GitHub Issues: An Automated Approach for Quality Requirements Classification. *Programming and Computer Software*, **2021**, 47, 704-721	0.8	0
110	Differential Evolution in Robust Optimization Over Time Using a Survival Time Approach. *Mathematical and Computational Applications*, **2020**, 25, 72	1	1

109	Multi-objective meta-heuristic optimization in intelligent control: A survey on the controller tuning problem. *Applied Soft Computing Journal*, **2020**, 93, 106342	7.5	26
108	Evolutionary Multi-Objective Energy Production Optimization: An Empirical Comparison. *Mathematical and Computational Applications*, **2020**, 25, 32	1	2
107	Data-Driven Bayesian Network Learning: A Bi-Objective Approach to Address the Bias-Variance Decomposition. *Mathematical and Computational Applications*, **2020**, 25, 37	1	3
106	A permutational-based Differential Evolution algorithm for feature subset selection. *Pattern Recognition Letters*, **2020**, 133, 86-93	4.7	5
105	A multi-breakpoints approach for symbolic discretization of time series. *Knowledge and Information Systems*, **2020**, 62, 2795-2834	2.4	3
104	A surrogate-assisted metaheuristic for bilevel optimization **2020**,		2
103	Towards a Quantitative Identification of Mobile Social Media UIDPs Visual Features Using a Combination of Digital Image Processing and Machine Learning Techniques. *Studies in Computational Intelligence*, **2020**, 659-674	0.8	
102	Metaheuristics to solve grouping problems: A review and a case study. *Swarm and Evolutionary Computation*, **2020**, 53, 100643	9.8	22
101	Preface to the special issue on data science in dynamics and control. *International Journal of Dynamics and Control*, **2020**, 8, 1053-1053	1.7	
100	A modified brain storm optimization algorithm with a special operator to solve constrained optimization problems. *Applied Intelligence*, **2020**, 50, 4145-4161	4.9	4
99	Feature Selection on 2D and 3D Geometric Features to Improve Facial Expression Recognition. *Sensors*, **2020**, 20,	3.8	3
98	A local cooperative approach to solve large-scale constrained optimization problems. *Swarm and Evolutionary Computation*, **2019**, 51, 100577	9.8	7
97	Corner detection of intensity images with cellular neural networks (CNN) and evolutionary techniques. *Neurocomputing*, **2019**, 347, 82-93	5.4	10
96	Deterministic Parameter Control in Differential Evolution with Combined Variants for Constrained Search Spaces. *Studies in Computational Intelligence*, **2019**, 3-28	0.8	
95	Adaptive boundary constraint-handling scheme for constrained optimization. *Soft Computing*, **2019**, 23, 8247-8280	3.5	2
94	A New Evolutionary Optimization Method Based on Center of Mass. *Asset Analytics*, **2019**, 65-74	0.3	4
93	A Graph-Theory-Based Method for Topological and Dimensional Representation of Planar Mechanisms as a Computational Tool for Engineering Design. *IEEE Access*, **2019**, 7, 587-596	3.5	6
92	Immune Generalized Differential Evolution for dynamic multi-objective environments: An empirical study. *Knowledge-Based Systems*, **2018**, 142, 192-219	7.3	7

91	Differential evolution based adaptation for the direct current motor velocity control parameters. *Mathematics and Computers in Simulation*, **2018**, 150, 122-141	3.3	4
90	Dynamic differential evolution with combined variants and a repair method to solve dynamic constrained optimization problems: an empirical study. *Soft Computing*, **2018**, 22, 541-570	3.5	3
89	A cost-benefit local search coordination in multimeme differential evolution for constrained numerical optimization problems. *Swarm and Evolutionary Computation*, **2018**, 39, 249-266	9.8	8
88	A Comparison of Constraint Handling Techniques for Dynamic Constrained Optimization Problems **2018**,		5
87	A Diversity Promotion Study in Constrained Optimizations **2018**,		1
86	Constraint-handling techniques in surrogate-assisted evolutionary optimization. An empirical study. *Applied Soft Computing Journal*, **2018**, 73, 215-229	7.5	14
85	Improved multi-objective clustering with automatic determination of the number of clusters. *Neural Computing and Applications*, **2017**, 28, 2255-2275	4.8	18
84	An Improved Centroid-Based Boundary Constraint-Handling Method in Differential Evolution for Constrained Optimization. *International Journal of Pattern Recognition and Artificial Intelligence*, **2017**, 31, 1759023	1.1	2
83	**2017**,		1
82	The baldwin effect on a memetic differential evolution for constrained numerical optimization problems **2017**,		3
81	An experimental comparison of two constraint handling approaches used with differential evolution **2017**,		2
80	Empirical study of bound constraint-handling methods in Particle Swarm Optimization for constrained search spaces **2017**,		4
79	Constraint-Handling Techniques for the Concurrent Design of a Five-Bar Parallel Robot. *IEEE Access*, **2017**, 5, 23010-23021	3.5	9
78	An adaptive symbolic discretization scheme for the classification of temporal datasets using NSGA-II **2017**,		1
77	A metaheuristic for a numerical approximation to the mass transfer problem. *International Journal of Applied Mathematics and Computer Science*, **2016**, 26, 757-766	1.7	
76	Surrogate-Assisted Differential Evolution with an Adaptive Evolution Control Based on Feasibility to Solve Constrained Optimization Problems. *Advances in Intelligent Systems and Computing*, **2016**, 809-822	0.4	5
75	Improved Modified Bacterial Foraging Optimization Algorithm to Solve Constrained Numerical Optimization Problems. *Applied Mathematics and Information Sciences*, **2016**, 10, 607-622	2.4	4
74	Two-Swim Operators in the Modified Bacterial Foraging Algorithm for the Optimal Synthesis of Four-Bar Mechanisms. *Computational Intelligence and Neuroscience*, **2016**, 2016, 4525294	3	9

73	A study of constraint-handling techniques in brain storm optimization **2016**,		3
72	Cervical image segmentation using active contours and evolutionary programming over temporary acetowhite patterns **2016**,		2
71	Feature selection to detect fallen pose using depth images **2016**,		7
70	On the Use of Semantics in Multi-objective Genetic Programming. *Lecture Notes in Computer Science*, **2016**, 353-363	0.9	5
69	Differential Evolution with a Repair Method to Solve Dynamic Constrained Optimization Problems **2015**,		2
68	A Repair Method for Differential Evolution with Combined Variants to Solve Dynamic Constrained Optimization Problems **2015**,		7
67	Evolutionary programming for the length minimization of addition chains. *Engineering Applications of Artificial Intelligence*, **2015**, 37, 125-134	7.2	11
66	Towards the Full Model Selection in temporal databases by using micro-differential evolution. An empirical study **2015**,		1
65	A novel boundary constraint-handling technique for constrained numerical optimization problems **2015**,		4
64	Immune generalized differential evolution for dynamic multiobjective optimization problems **2015**,		3
63	Approximated algorithms for the minimum dilation triangulation problem. *Journal of Heuristics*, **2014**, 20, 189-209	1.9	3
62	Application of time series discretization using evolutionary programming for classification of precancerous cervical lesions. *Journal of Biomedical Informatics*, **2014**, 49, 73-83	10.2	14
61	Self-adaptive mix of particle swarm methodologies for constrained optimization. *Information Sciences*, **2014**, 277, 216-233	7.7	40
60	Optimum synthesis of a four-bar mechanism using the modified bacterial foraging algorithm. *International Journal of Systems Science*, **2014**, 45, 1080-1100	2.3	14
59	How good is crude MDL for solving the bias-variance dilemma? An empirical investigation based on Bayesian networks. *PLoS ONE*, **2014**, 9, e92866	3.7	2
58	Differential evolution with combined variants for dynamic constrained optimization **2014**,		11
57	Stepsize control on the modified bacterial foraging algorithm for constrained numerical optimization **2014**,		1
56	Memetic Modified Artificial Bee Colony for constrained optimization **2014**,		1

55	**2014**,		2
54	An empirical comparison of two crossover operators in real-coded genetic algorithms for constrained numerical optimization problems **2014**,		2
53	Structured Population Size Reduction Differential Evolution with Multiple Mutation Strategies on CEC 2013 real parameter optimization **2013**,		28
52	Memetic differential evolution for constrained numerical optimization problems **2013**,		6
51	Real Parameter Single Objective Optimization using self-adaptive differential evolution algorithm with more strategies **2013**,		19
50	A hybrid version of differential evolution with two differential mutation operators applied by stages **2013**,		5
49	Particle Swarm Optimizer for constrained optimization **2013**,		4
48	A review of the bacterial foraging algorithm in constrained numerical optimization **2013**,		2
47	An image registration method for colposcopic images. *Computational and Mathematical Methods in Medicine*, **2013**, 2013, 285962	2.8	3
46	Robotic Behavior Implementation Using Two Different Differential Evolution Variants. *Lecture Notes in Computer Science*, **2013**, 216-226	0.9	1
45	Multi-objective airfoil shape optimization using a multiple-surrogate approach **2012**,		12
44	Empirical analysis of a modified Artificial Bee Colony for constrained numerical optimization. *Applied Mathematics and Computation*, **2012**, 218, 10943-10973	2.7	76
43	Multiobjective Evolutionary Algorithms in Aeronautical and Aerospace Engineering. *IEEE Transactions on Evolutionary Computation*, **2012**, 16, 662-694	15.6	95
42	A Combination of Specialized Differential Evolution Variants for Constrained Optimization. *Lecture Notes in Computer Science*, **2012**, 261-270	0.9	10
41	Adaptation and local search in the modified bacterial foraging algorithm for constrained optimization **2012**,		5
40	Constraint-handling in nature-inspired numerical optimization: Past, present and future. *Swarm and Evolutionary Computation*, **2011**, 1, 173-194	9.8	637
39	Evolutionary Algorithms Applied to Multi-Objective Aerodynamic Shape Optimization. *Studies in Computational Intelligence*, **2011**, 211-240	0.8	9
38	Parametric reconfiguration improvement in non-iterative concurrent mechatronic design using an evolutionary-based approach. *Engineering Applications of Artificial Intelligence*, **2011**, 24, 757-771	7.2	18

37	Addition chain length minimization with evolutionary programming **2011**,		8
36	Times Series Discretization Using Evolutionary Programming. *Lecture Notes in Computer Science*, **2011**, 225-234	0.9	3
35	Smart flight and dynamic tolerances in the artificial bee colony for constrained optimization **2010**,		10
34	Elitist Artificial Bee Colony for constrained real-parameter optimization **2010**,		26
33	An Experimental Comparison of Multiobjective Algorithms: NSGA-II and OMOPSO **2010**,		8
32	MODE-LD+SS: A novel Differential Evolution algorithm incorporating local dominance and scalar selection mechanisms for multi-objective optimization **2010**,		9
31	Differential evolution in constrained numerical optimization: An empirical study. *Information Sciences*, **2010**, 180, 4223-4262	7.7	128
30	pMODE-LD+SS: An Effective and Efficient Parallel Differential Evolution Algorithm for Multi-Objective Optimization **2010**, 21-30		
29	Parameter control in Differential Evolution for constrained optimization **2009**,		24
28	Improved Particle Swarm Optimization in Constrained Numerical Search Spaces. *Studies in Computational Intelligence*, **2009**, 299-332	0.8	14
27	Self-adaptive and Deterministic Parameter Control in Differential Evolution for Constrained Optimization. *Studies in Computational Intelligence*, **2009**, 95-120	0.8	24
26	A Genetic Algorithm with repair and local search mechanisms able to find minimal length addition chains for small exponents **2009**,		10
25	Elitistic Evolution: An Efficient Heuristic for Global Optimization. *Lecture Notes in Computer Science*, **2009**, 171-182	0.9	2
24	An empirical study about the usefulness of evolution strategies to solve constrained optimization problems. *International Journal of General Systems*, **2008**, 37, 443-473	2.1	284
23	Dynamic adaptation and multiobjective concepts in a particle swarm optimizer for constrained optimization **2008**,		2
22	Multi-objective Optimization Using Differential Evolution: A Survey of the State-of-the-Art. *Studies in Computational Intelligence*, **2008**, 173-196	0.8	81
21	Constrained Optimization via Multiobjective Evolutionary Algorithms **2008**, 53-75		41
20	A Preliminary Study of Fitness Inheritance in Evolutionary Constrained Optimization. *Studies in Computational Intelligence*, **2008**, 1-14	0.8	5

19	Looking Inside Particle Swarm Optimization in Constrained Search Spaces. *Lecture Notes in Computer Science*, **2008**, 451-461	0.9	2
18	Comparing bio-inspired algorithms in constrained optimization problems **2007**,		20
17	An ant system with steps counter for the job shop scheduling problem **2007**,		1
16	Integration of structure and control using an evolutionary approach: an application to the optimal concurrent design of a CVT. *International Journal for Numerical Methods in Engineering*, **2007**, 71, 883-901	2.4	15
15	Multiple trial vectors in differential evolution for engineering design. *Engineering Optimization*, **2007**, 39, 567-589	2	84
14	An Evolutionary Approach to Solve a Novel Mechatronic Multiobjective Optimization Problem **2007** , 329-351		1
13	A comparative study of differential evolution variants for global optimization **2006**,		307
12	A simple multimembered evolution strategy to solve constrained optimization problems. *IEEE Transactions on Evolutionary Computation*, **2005**, 9, 1-17	15.6	406
11	Useful Infeasible Solutions in Engineering Optimization with Evolutionary Algorithms. *Lecture Notes in Computer Science*, **2005**, 652-662	0.9	61
10	Promising infeasibility and multiple offspring incorporated to differential evolution for constrained optimization **2005**,		38
9	Simple Feasibility Rules and Differential Evolution for Constrained Optimization. *Lecture Notes in Computer Science*, **2004**, 707-716	0.9	34
8	Handling constraints using multiobjective optimization concepts. *International Journal for Numerical Methods in Engineering*, **2004**, 59, 1989-2017	2.4	121
7	An Improved Diversity Mechanism for Solving Constrained Optimization Problems Using a Multimembered Evolution Strategy. *Lecture Notes in Computer Science*, **2004**, 700-712	0.9	10
6	A Simple Evolution Strategy to Solve Constrained Optimization Problems. *Lecture Notes in Computer Science*, **2003**, 640-641	0.9	9
5	Constraint-handling in genetic algorithms through the use of dominance-based tournament selection. *Advanced Engineering Informatics*, **2002**, 16, 193-203	7.4	570
4	Handling Constraints in Genetic Algorithms Using Dominance-based Tournaments **2002**, 273-284		29
3	Saving evaluations in differential evolution for constrained optimization		2
2	Multiobjective-based concepts to handle constraints in evolutionary algorithms		7

List of Publications