

Eneko Osaba

List of Publications by Year in descending order

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Version: 2024-02-01

117
papers

2,409
citations

361413

20
h-index

233421

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124
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124
docs citations

124
times ranked

2075
citing authors

#	ARTICLE	IF	CITATIONS
1	Bio-inspired computation: Where we stand and what's next. <i>Swarm and Evolutionary Computation</i> , 2019, 48, 220-250.	8.1	430
2	An improved discrete bat algorithm for symmetric and asymmetric Traveling Salesman Problems. <i>Engineering Applications of Artificial Intelligence</i> , 2016, 48, 59-71.	8.1	261
3	A Tutorial On the design, experimentation and application of metaheuristic algorithms to real-World optimization problems. <i>Swarm and Evolutionary Computation</i> , 2021, 64, 100888.	8.1	154
4	A Discrete and Improved Bat Algorithm for solving a medical goods distribution problem with pharmacological waste collection. <i>Swarm and Evolutionary Computation</i> , 2019, 44, 273-286.	8.1	113
5	A discrete firefly algorithm to solve a rich vehicle routing problem modelling a newspaper distribution system with recycling policy. <i>Soft Computing</i> , 2017, 21, 5295-5308.	3.6	109
6	A Hybrid Method for Short-Term Traffic Congestion Forecasting Using Genetic Algorithms and Cross Entropy. <i>IEEE Transactions on Intelligent Transportation Systems</i> , 2016, 17, 557-569.	8.0	108
7	Hierarchical fuzzy rule-based system optimized with genetic algorithms for short term traffic congestion prediction. <i>Transportation Research Part C: Emerging Technologies</i> , 2014, 43, 127-142.	7.6	97
8	A discrete water cycle algorithm for solving the symmetric and asymmetric traveling salesman problem. <i>Applied Soft Computing Journal</i> , 2018, 71, 277-290.	7.2	89
9	Golden ball: a novel meta-heuristic to solve combinatorial optimization problems based on soccer concepts. <i>Applied Intelligence</i> , 2014, 41, 145-166.	5.3	77
10	A prescription of methodological guidelines for comparing bio-inspired optimization algorithms. <i>Swarm and Evolutionary Computation</i> , 2021, 67, 100973.	8.1	73
11	Community detection in networks using bio-inspired optimization: Latest developments, new results and perspectives with a selection of recent meta-heuristics. <i>Applied Soft Computing Journal</i> , 2020, 87, 106010.	7.2	48
12	Good practice proposal for the implementation, presentation, and comparison of metaheuristics for solving routing problems. <i>Neurocomputing</i> , 2018, 271, 2-8.	5.9	43
13	Bioinspired Computational Intelligence and Transportation Systems: A Long Road Ahead. <i>IEEE Transactions on Intelligent Transportation Systems</i> , 2020, 21, 466-495.	8.0	38
14	Novelty search for global optimization. <i>Applied Mathematics and Computation</i> , 2019, 347, 865-881.	2.2	37
15	Ensemble classification for imbalanced data based on feature space partitioning and hybrid metaheuristics. <i>Applied Intelligence</i> , 2019, 49, 2807-2822.	5.3	33
16	Traveling salesman problem: a perspective review of recent research and new results with bio-inspired metaheuristics. , 2020, , 135-164.		30
17	GACE: A meta-heuristic based in the hybridization of Genetic Algorithms and Cross Entropy methods for continuous optimization. <i>Expert Systems With Applications</i> , 2016, 55, 508-519.	7.6	28
18	Evolutionary Multitask Optimization: a Methodological Overview, Challenges, and Future Research Directions. <i>Cognitive Computation</i> , 2022, 14, 927-954.	5.2	27

#	ARTICLE	IF	CITATIONS
19	An Evolutionary Discrete Firefly Algorithm with Novel Operators for Solving the Vehicle Routing Problem with Time Windows. <i>Studies in Computational Intelligence</i> , 2016, , 21-41.	0.9	26
20	AT-MFCGA: An Adaptive Transfer-guided Multifactorial Cellular Genetic Algorithm for Evolutionary Multitasking. <i>Information Sciences</i> , 2021, 570, 577-598.	6.9	25
21	A 4-dimensional model and combined methodological approach to inclusive Urban planning and design for ALL. <i>Sustainable Cities and Society</i> , 2019, 44, 195-214.	10.4	23
22	A multi-objective evolutionary algorithm for the tuning of fuzzy rule bases for uncoordinated intersections in autonomous driving. <i>Information Sciences</i> , 2015, 321, 14-30.	6.9	22
23	Lights and shadows in Evolutionary Deep Learning: Taxonomy, critical methodological analysis, cases of study, learned lessons, recommendations and challenges. <i>Information Fusion</i> , 2021, 67, 161-194.	19.1	21
24	A multi-crossover and adaptive island based population algorithm for solving routing problems. <i>Journal of Zhejiang University: Science C</i> , 2013, 14, 815-821.	0.7	19
25	A novel meta-heuristic based on soccer concepts to solve routing problems. , 2013, , .		18
26	A Systematic Literature Review of Quantum Computing for Routing Problems. <i>IEEE Access</i> , 2022, 10, 55805-55817.	4.2	18
27	Adaptive Multifactorial Evolutionary Optimization for Multitask Reinforcement Learning. <i>IEEE Transactions on Evolutionary Computation</i> , 2022, 26, 233-247.	10.0	17
28	Crossover versus Mutation: A Comparative Analysis of the Evolutionary Strategy of Genetic Algorithms Applied to Combinatorial Optimization Problems. <i>Scientific World Journal, The</i> , 2014, 2014, 1-22.	2.1	16
29	Is the Vehicle Routing Problem Dead? An Overview Through Bioinspired Perspective and a Prospect of Opportunities. <i>Springer Tracts in Nature-inspired Computing</i> , 2020, , 57-84.	0.7	16
30	Focusing on the Golden Ball Metaheuristic: An Extended Study on a Wider Set of Problems. <i>Scientific World Journal, The</i> , 2014, 2014, 1-17.	2.1	14
31	Hybrid Quantum Computing - Tabu Search Algorithm for Partitioning Problems: Preliminary Study on the Traveling Salesman Problem. , 2021, , .		14
32	Bio-inspired computation for big data fusion, storage, processing, learning and visualization: state of the art and future directions. <i>Neural Computing and Applications</i> , 2021, , 1-31.	5.6	14
33	An Adaptive Multi-Crossover Population Algorithm for Solving Routing Problems. <i>Studies in Computational Intelligence</i> , 2014, , 113-124.	0.9	14
34	Smart Bandwidth Assigantion in an Underlay Cellular Network for Internet of Vehicles. <i>Sensors</i> , 2017, 17, 2217.	3.8	13
35	Differential Evolution for Association Rule Mining Using Categorical and Numerical Attributes. <i>Lecture Notes in Computer Science</i> , 2018, , 79-88.	1.3	13
36	A Smartphone-Based System for Outdoor Data Gathering Using a Wireless Beacon Network and GPS Data: From Cyber Spaces to Senseable Spaces. <i>ISPRS International Journal of Geo-Information</i> , 2018, 7, 190.	2.9	13

#	ARTICLE	IF	CITATIONS
37	On Efficiently Solving the Vehicle Routing Problem with Time Windows Using the Bat Algorithm with Random Reinsertion Operators. <i>Studies in Computational Intelligence</i> , 2018, , 69-89.	0.9	12
38	On the influence of using initialization functions on genetic algorithms solving combinatorial optimization problems: A first study on the TSP. , 2014, , .		11
39	Improvement of Drug Delivery Routes Through the Adoption of Multi-Operator Evolutionary Algorithms and Intelligent Vans Capable of Reporting Real-Time Incidents. <i>IEEE Transactions on Automation Science and Engineering</i> , 2017, 14, 1009-1019.	5.2	11
40	Analysis of the suitability of using blind crossover operators in genetic algorithms for solving routing problems. , 2013, , .		10
41	Decentralised intelligent transport system with distributed intelligence based on classification techniques. <i>IET Intelligent Transport Systems</i> , 2016, 10, 674-682.	3.0	10
42	Multifactorial Cellular Genetic Algorithm (MFCGA): Algorithmic Design, Performance Comparison and Genetic Transferability Analysis. , 2020, , .		9
43	GABF: genetic algorithm with base fitness for obtaining generality from partial results: study in autonomous intersection by fuzzy logic. <i>Applied Intelligence</i> , 2014, 41, 1-12.	5.3	8
44	A Bio-inspired Approach for Collaborative Exploration with Mobile Battery Recharging in Swarm Robotics. <i>Lecture Notes in Computer Science</i> , 2018, , 75-87.	1.3	8
45	Hybrid Modified Firefly Algorithm for Border Detection of Skin Lesions in Medical Imaging. , 2019, , .		8
46	Simultaneously Evolving Deep Reinforcement Learning Models using Multifactorial optimization. , 2020, , .		8
47	Discussion related to “Wang, C.-H., & Lu, J.-Z. (2009). A hybrid genetic algorithm that optimizes capacitated vehicle routing problem. <i>Expert Systems with Applications</i> , 36(2), 2921-2936” Expert Systems With Applications, 2013, 40, 5425-5426.	7.6	7
48	Comparison between Golden Ball Meta-heuristic, Evolutionary Simulated Annealing and Tabu Search for the Traveling Salesman Problem. , 2016, , .		7
49	Automatic Fitting of Feature Points for Border Detection of Skin Lesions in Medical Images with Bat Algorithm. <i>Studies in Computational Intelligence</i> , 2018, , 357-368.	0.9	7
50	Multi-objective Design of Time-Constrained Bike Routes Using Bio-inspired Meta-heuristics. <i>Lecture Notes in Computer Science</i> , 2018, , 197-210.	1.3	6
51	Data-Driven Optimization for Transportation Logistics and Smart Mobility Applications [Guest Editorial]. <i>IEEE Intelligent Transportation Systems Magazine</i> , 2020, 12, 6-9.	3.8	6
52	Soccer-Inspired Metaheuristics: Systematic Review of Recent Research and Applications. <i>Springer Tracts in Nature-inspired Computing</i> , 2021, , 81-102.	0.7	6
53	Editorial: Memetic Computing: Accelerating optimization heuristics with problem-dependent local search methods. <i>Swarm and Evolutionary Computation</i> , 2022, 70, 101047.	8.1	6
54	An Asymmetric Multiple Traveling Salesman Problem with Backhauls to solve a Dial-a-Ride problem. , 2015, , .		5

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55	Applications of Soft Computing in Intelligent Transportation Systems. Studies in Fuzziness and Soft Computing, 2018, , 63-81.	0.8	5
56	Bat Algorithm Swarm Robotics Approach for Dual Non-cooperative Search with Self-centered Mode. Lecture Notes in Computer Science, 2018, , 201-209.	1.3	5
57	Multi-Objective Optimization of Bike Routes for Last-Mile Package Delivery with Drop-Offs. , 2018, , .		5
58	Cuckoo Search Algorithm for Border Reconstruction of Medical Images with Rational Curves. Lecture Notes in Computer Science, 2019, , 320-330.	1.3	5
59	Discovering dependencies among mined association rules with population-based metaheuristics. , 2019, , .		5
60	Genetic optimised serial hierarchical fuzzy classifier for breast cancer diagnosis. International Journal of Bio-Inspired Computation, 2020, 15, 194.	0.9	5
61	Applied Optimization and Swarm Intelligence: A Systematic Review and Prospect Opportunities. Springer Tracts in Nature-inspired Computing, 2021, , 1-23.	0.7	5
62	Focusing on the hybrid quantum computing - Tabu search algorithm. , 2021, , .		5
63	COEBA: A Coevolutionary Bat Algorithm for Discrete Evolutionary Multitasking. Lecture Notes in Computer Science, 2020, , 244-256.	1.3	5
64	A Comparative Study on the Performance of Evolutionary Fuzzy and Crisp Rule Based Classification Methods in Congestion Prediction. Transportation Research Procedia, 2016, 14, 4458-4467.	1.5	4
65	Let nature decide its nature: On the design of collaborative hyperheuristics for decentralized ephemeral environments. Future Generation Computer Systems, 2018, 88, 792-805.	7.5	4
66	Using Novelty Search in Differential Evolution. Communications in Computer and Information Science, 2018, , 534-542.	0.5	4
67	Return, Diversification and Risk in Cryptocurrency Portfolios using Deep Recurrent Neural Networks and Multi-Objective Evolutionary Algorithms. , 2019, , .		4
68	Combining bio-inspired meta-heuristics and novelty search for community detection over evolving graph streams. , 2019, , .		4
69	Hybridizing differential evolution and novelty search for multimodal optimization problems. , 2019, , .		4
70	On the design of hybrid bio-inspired meta-heuristics for complex multiattribute vehicle routing problems. Expert Systems, 2020, 37, e12528.	4.5	4
71	CURIE: a cellular automaton for concept drift detection. Data Mining and Knowledge Discovery, 2021, 35, 2655-2678.	3.7	4
72	Design and Field Experimentation of a Cooperative ITS Architecture Based on Distributed RSUs. Sensors, 2016, 16, 1147.	3.8	3

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73	Deep Recurrent Neural Networks and Optimization Meta-Heuristics for Green Urban Route Planning with Dynamic Traffic Estimates. , 2019, , .		3
74	Benchmark dataset for the Asymmetric and Clustered Vehicle Routing Problem with Simultaneous Pickup and Deliveries, Variable Costs and Forbidden Paths. Data in Brief, 2020, 29, 105142.	1.0	3
75	Short-Term Traffic Congestion Forecasting Using Hybrid Metaheuristics and Rule-Based Methods: A Comparative Study. Lecture Notes in Computer Science, 2016, , 290-299.	1.3	3
76	dMFEA-II. , 2020, , .		3
77	Simulation Tool based on a Memetic Algorithm to Solve a Real Instance of a Dynamic TSP. , 2012, , .		3
78	More is not Always Better: Insights from a Massive Comparison of Meta-heuristic Algorithms over Real-Parameter Optimization Problems. , 2021, , .		3
79	A study on the impact of heuristic initialization functions in a genetic algorithm solving the N-queens problem. , 2014, , .		2
80	Comments on Albayrak, M., & Allahverdy N. (2011). Development a new mutation operator to solve the Traveling Salesman Problem by aid of genetic algorithms. Expert Systems with Applications, 38(3), 1313-1320. A proposal of good practice. Expert Systems With Applications, 2014, 41, 1530-1531.	7.6	2
81	Community Detection in Weighted Directed Networks Using Nature-Inspired Heuristics. Lecture Notes in Computer Science, 2018, , 325-335.	1.3	2
82	Computing rational border curves of melanoma and other skin lesions from medical images with bat algorithm. , 2019, , .		2
83	Nature-inspired metaheuristics for optimizing information dissemination in vehicular networks. , 2019, , .		2
84	Trophallaxis, Low-Power Vision Sensors and Multi-objective Heuristics for 3D Scene Reconstruction Using Swarm Robotics. Lecture Notes in Computer Science, 2019, , 599-615.	1.3	2
85	Optimization and Prediction Techniques for Self-Healing and Self-Learning Applications in a Trustworthy Cloud Continuum. Information (Switzerland), 2021, 12, 308.	2.9	2
86	Design and Implementation of a Combinatorial Optimization Multi-population Meta-heuristic for Solving Vehicle Routing Problems. International Journal of Interactive Multimedia and Artificial Intelligence, 2016, 4, 89.	1.3	2
87	A multi-agent approach for dynamic production and distribution scheduling. Journal of Evidence-Based Medicine, 2014, 4, 229.	1.8	1
88	An adaptive local search with prioritized tracking for Dynamic Environments. International Journal of Computational Intelligence Systems, 2015, 8, 1053.	2.7	1
89	TIMON Project. , 2016, , .		1
90	Ensemble and Fuzzy Techniques Applied to Imbalanced Traffic Congestion Datasets: A Comparative Study. Lecture Notes in Computer Science, 2018, , 185-196.	1.3	1

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91	Adaptation of Sport Training Plans by Swarm Intelligence. Advances in Intelligent Systems and Computing, 2019, , 56-67.	0.6	1
92	Cooperative game concepts in solving global optimization. , 2019, , .		1
93	Dynamic Partitioning of Evolving Graph Streams Using Nature-Inspired Heuristics. Lecture Notes in Computer Science, 2019, , 367-380.	1.3	1
94	Bat Algorithm for Kernel Computation in Fractal Image Reconstruction. Lecture Notes in Computer Science, 2019, , 381-394.	1.3	1
95	Introductory Chapter: Swarm Intelligence - Recent Advances, New Perspectives, and Applications. , 0, , .		1
96	Review of Swarm Intelligence for Improving Time Series Forecasting. Springer Tracts in Nature-inspired Computing, 2021, , 61-79.	0.7	1
97	Parametric Learning of Associative Functional Networks Through a Modified Memetic Self-adaptive Firefly Algorithm. Lecture Notes in Computer Science, 2020, , 566-579.	1.3	1
98	A Proposal of Good Practice in the Formulation and Comparison of Meta-heuristics for Solving Routing Problems. Advances in Intelligent Systems and Computing, 2014, , 31-40.	0.6	1
99	QUANTUM COMPUTING: SIX KEY FACTORS TO UNDERSTAND THE FUTURE OF COMPUTATION. Dyna (Spain), 2018, 93, 238-241.	0.2	1
100	Interplay of Two Bat Algorithm Robotic Swarms in Non-cooperative Target Point Search. Communications in Computer and Information Science, 2018, , 543-550.	0.5	1
101	NATURE- AND BIO-INSPIRED OPTIMIZATION: THE GOOD, THE BAD, THE UGLY AND THE HOPEFUL. Dyna (Spain), 2022, 97, 114-117.	0.2	1
102	MO-MFCGA: Multiobjective Multifactorial Cellular Genetic Algorithm for Evolutionary Multitasking. , 2021, , .		1
103	A study on the efficiency of neutral crossover operators in genetic algorithms applied to the bin packing problem. , 2014, , .		0
104	Hybridizing Genetic Algorithm with Cross Entropy for Solving Continuous Functions. , 2015, , .		0
105	Poster: Efficient cluster-based resource allocation for co-existing vehicle and cellular users. , 2016, , .		0
106	Editorial: Special Issue HAIS15-IGPL. Logic Journal of the IGPL, 2017, 25, 859-861.	1.5	0
107	Introductory Chapter: Nature-Inspired Methods for Stochastic, Robust, and Dynamic Optimization. , 0, , .		0
108	Using Adaptive Novelty Search in Differential Evolution. Communications in Computer and Information Science, 2019, , 267-275.	0.5	0

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109	Introductory Chapter: Artificial Intelligence - Latest Advances, New Paradigms and Novel Applications. Artificial Intelligence, 0, , .	2.3	0
110	An Integrated Production and Distribution Scheduling Approach for Exceptions Handling. Lecture Notes in Mechanical Engineering, 2013, , 813-823.	0.4	0
111	Task Classification Using Topological Graph Features for Functional M/EEG Brain Connectomics. Lecture Notes in Computer Science, 2018, , 21-32.	1.3	0
112	Using ICTs for the Improvement of Public Open Spaces: The Opportunity Offered by CyberParks Digital Tools. Lecture Notes in Computer Science, 2019, , 278-293.	1.3	0
113	A Novel Metaheuristic Approach for Loss Reduction and Voltage Profile Improvement in Power Distribution Networks Based on Simultaneous Placement and Sizing of Distributed Generators and Shunt Capacitor Banks. Lecture Notes in Computer Science, 2020, , 64-76.	1.3	0
114	Distributed Coordination of Heterogeneous Robotic Swarms Using Stochastic Diffusion Search. Lecture Notes in Computer Science, 2020, , 79-91.	1.3	0
115	Genetic optimised serial hierarchical fuzzy classifier for breast cancer diagnosis. International Journal of Bio-Inspired Computation, 2020, 15, 194.	0.9	0
116	A Parallel Variable Neighborhood Search for Solving Real-World Production-Scheduling Problems. Lecture Notes in Computer Science, 2021, , 12-20.	1.3	0
117	Smart Processing for Systems under Uncertainty or Perturbation. Electronics (Switzerland), 2022, 11, 680.	3.1	0