

Hemant Kumar Singh

List of Publications by Year in descending order

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107
papers

1,975
citations

331259

21
h-index

288905

40
g-index

107
all docs

107
docs citations

107
times ranked

1465
citing authors

#	ARTICLE	IF	CITATIONS
1	An Iterative Two-Stage Multifidelity Optimization Algorithm for Computationally Expensive Problems. IEEE Transactions on Evolutionary Computation, 2023, 27, 520-534.	7.5	2
2	A Multifidelity Approach for Bilevel Optimization With Limited Computing Budget. IEEE Transactions on Evolutionary Computation, 2022, 26, 392-399.	7.5	3
3	Towards identification of solutions of interest for multi-objective problems considering both objective and variable space information. Applied Soft Computing Journal, 2022, 119, 108505.	4.1	8
4	Investigating Normalization Bounds for Hypervolume-Based Infill Criterion for Expensive Multiobjective Optimization. Lecture Notes in Computer Science, 2021, , 519-530.	1.0	3
5	Feasibility-ratio based sequencing for computationally efficient constrained optimization. Swarm and Evolutionary Computation, 2021, 62, 100850.	4.5	4
6	Comparing Expected Improvement and Kriging Believer for Expensive Bilevel Optimization. , 2021, , .		0
7	Vibration-based detection of skin-stiffener debonding on composite stiffened panels using surrogate-assisted algorithms. Composite Structures, 2021, 270, 114090.	3.1	10
8	Delamination detection in composite laminates using improved surrogate-assisted optimization. Composite Structures, 2021, 277, 114622.	3.1	3
9	Partial Evaluation Strategies for Expensive Evolutionary Constrained Optimization. IEEE Transactions on Evolutionary Computation, 2021, 25, 1103-1117.	7.5	21
10	Evolutionary Algorithm Embedded With Bump-Hunting for Constrained Design Optimization. Journal of Mechanical Design, Transactions of the ASME, 2021, 143, .	1.7	3
11	A Neuro-Evolution Approach to Shepherding Swarm Guidance in the Face of Uncertainty. , 2021, , .		2
12	Online intensification of search around solutions of interest for multi/many-objective optimization. , 2020, , .		2
13	The Limits of Reactive Shepherding Approaches for Swarm Guidance. IEEE Access, 2020, 8, 214658-214671.	2.6	16
14	Investigating the equivalence between PBI and AASF scalarization for multi-objective optimization. Swarm and Evolutionary Computation, 2020, 53, 100630.	4.5	7
15	Path Planning for Shepherding a Swarm in a Cluttered Environment using Differential Evolution. , 2020, , .		15
16	Many-Objective Optimization with Limited Computing Budget. Studies in Computational Intelligence, 2020, , 17-46.	0.7	0
17	Wind-turbine design optimization using a many-objective evolutionary algorithm. , 2020, , .		0
18	A parametric investigation of PBI and AASF scalarizations. , 2019, , .		0

#	ARTICLE	IF	CITATIONS
19	Investigating the use of linear programming to solve implicit symbolic regression problems. , 2019, , .		3
20	Identifying solutions of interest for practical many-objective problems using recursive expected marginal utility. , 2019, , .		3
21	Understanding Hypervolume Behavior Theoretically for Benchmarking in Evolutionary Multi/Many-objective Optimization. IEEE Transactions on Evolutionary Computation, 2019, , 1-1.	7.5	3
22	Rollout based Heuristics for the Quantum Circuit Compilation Problem. , 2019, , .		5
23	Investigating the use of sequencing and infeasibility driven strategies for constrained optimization. , 2019, , .		4
24	Modulation of Force Vectors for Effective Shepherding of a Swarm: A Bi-Objective Approach. , 2019, , .		10
25	Evolving rollout-justification based heuristics for resource constrained project scheduling problems. Swarm and Evolutionary Computation, 2019, 50, 100556.	4.5	12
26	A component-wise study of K-RVEA. , 2019, , .		0
27	Nested evolutionary algorithms for computationally expensive bilevel optimization problems: Variants and their systematic analysis. Swarm and Evolutionary Computation, 2019, 48, 329-344.	4.5	19
28	A multiple surrogate assisted multi/many-objective multi-fidelity evolutionary algorithm. Information Sciences, 2019, 502, 537-557.	4.0	12
29	Contextual Awareness in Human-Advanced-Vehicle Systems: A Survey. IEEE Access, 2019, 7, 33304-33328.	2.6	24
30	Vibration-based delamination detection in curved composite plates. Composites Part A: Applied Science and Manufacturing, 2019, 119, 261-274.	3.8	32
31	A Multiple Surrogate Assisted Decomposition-Based Evolutionary Algorithm for Expensive Multi/Many-Objective Optimization. IEEE Transactions on Evolutionary Computation, 2019, 23, 1000-1014.	7.5	97
32	A novel method of vibration modes selection for improving accuracy of frequency-based damage detection. Composites Part B: Engineering, 2019, 159, 437-446.	5.9	67
33	Distance-Based Subset Selection for Benchmarking in Evolutionary Multi/Many-Objective Optimization. IEEE Transactions on Evolutionary Computation, 2019, 23, 904-912.	7.5	51
34	Evolving heuristics for the resource constrained project scheduling problem with dynamic resource disruptions. Swarm and Evolutionary Computation, 2019, 44, 897-912.	4.5	27
35	Optimum Wind Farm Layouts: A Many-Objective Perspective and Case Study. Lecture Notes in Computer Science, 2019, , 707-718.	1.0	0
36	Vibration-based assessment of delaminations in FRP composite plates. Composites Part B: Engineering, 2018, 144, 254-266.	5.9	55

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37	Automatic estimation of differential evolution parameters using Hidden Markov Models. <i>Evolutionary Intelligence</i> , 2018, 10, 77-93.	2.3	5
38	A multiple surrogate assisted evolutionary algorithm for optimization involving iterative solvers. <i>Engineering Optimization</i> , 2018, 50, 1625-1644.	1.5	9
39	Flood disaster level evaluation using a particle swarm optimization algorithm considering decision maker's preference. <i>Water Science and Technology: Water Supply</i> , 2018, 18, 288-298.	1.0	2
40	An Enhanced Decomposition-Based Evolutionary Algorithm With Adaptive Reference Vectors. <i>IEEE Transactions on Cybernetics</i> , 2018, 48, 2321-2334.	6.2	59
41	On the use of genetic programming to evolve priority rules for resource constrained project scheduling problems. <i>Information Sciences</i> , 2018, 432, 146-163.	4.0	68
42	Balancing Survival of Feasible and Infeasible Solutions in Constraint Evolutionary Optimization Algorithms. , 2018, , .		3
43	Investigation of a Simple Distance Based Ranking Metric for Decomposition-Based Multi/Many-Objective Evolutionary Algorithms. <i>Lecture Notes in Computer Science</i> , 2018, , 384-396.	1.0	1
44	Uncovering Performance Envelopes Through Optimum Design of Tests. <i>Lecture Notes in Computer Science</i> , 2018, , 445-457.	1.0	0
45	Efficient Global Optimization for Solving Computationally Expensive Bilevel Optimization Problems. , 2018, , .		4
46	Team Selection Using Multi-/Many-Objective Optimization with Integer Linear Programming. , 2018, , .		5
47	Genetic Programming With Mixed-Integer Linear Programming-Based Library Search. <i>IEEE Transactions on Evolutionary Computation</i> , 2018, 22, 733-747.	7.5	20
48	Multiple Surrogate-Assisted Many-Objective Optimization for Computationally Expensive Engineering Design. <i>Journal of Mechanical Design, Transactions of the ASME</i> , 2018, 140, .	1.7	23
49	Alternative Passenger Cars for the Australian Market: A Cost-Benefit Analysis. <i>Lecture Notes in Management and Industrial Engineering</i> , 2018, , 163-173.	0.3	1
50	A Novel Decomposition-Based Evolutionary Algorithm for Engineering Design Optimization. <i>Journal of Mechanical Design, Transactions of the ASME</i> , 2017, 139, .	1.7	9
51	A Batch Infill Strategy for Computationally Expensive Optimization Problems. <i>Lecture Notes in Computer Science</i> , 2017, , 74-85.	1.0	1
52	A Surrogate Assisted Approach for Single-Objective Bilevel Optimization. <i>IEEE Transactions on Evolutionary Computation</i> , 2017, 21, 681-696.	7.5	51
53	Sensitivity analysis of inverse algorithms for damage detection in composites. <i>Composite Structures</i> , 2017, 176, 844-859.	3.1	23
54	Bridging the Gap: Many-Objective Optimization and Informed Decision-Making. <i>IEEE Transactions on Evolutionary Computation</i> , 2017, 21, 813-820.	7.5	52

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55	Use of a Non-nested Formulation to Improve Search for Bilevel Optimization. Lecture Notes in Computer Science, 2017, , 106-118.	1.0	1
56	Improvement of Reference Points for Decomposition Based Multi-objective Evolutionary Algorithms. Lecture Notes in Computer Science, 2017, , 284-296.	1.0	3
57	Accelerating MOEA/D by Nelder-Mead method. , 2017, , .		2
58	Decomposition Based Evolutionary Algorithm with a Dual Set of reference vectors. , 2017, , .		15
59	A heuristic algorithm for solving resource constrained project scheduling problems. , 2017, , .		4
60	An Enhanced Memetic Algorithm for Single-Objective Bilevel Optimization Problems. Evolutionary Computation, 2017, 25, 607-642.	2.3	41
61	An approach to generate comprehensive piecewise linear interpolation of pareto outcomes to aid decision making. Journal of Global Optimization, 2017, 68, 71-93.	1.1	3
62	Adsorptive potential of agricultural wastes for removal of dyes from aqueous solutions. Journal of Environmental Chemical Engineering, 2017, 5, 122-135.	3.3	127
63	Enhanced Pareto Interpolation Method to Aid Decision Making for Discontinuous Pareto Optimal Fronts. Lecture Notes in Computer Science, 2017, , 93-105.	1.0	1
64	A Projection-Based Approach for Constructing Piecewise Linear Pareto Front Approximations. Journal of Mechanical Design, Transactions of the ASME, 2016, 138, .	1.7	2
65	A Semantics based Symbolic Regression Framework for Mining Explicit and Implicit Equations from Data. , 2016, , .		1
66	A multi-objective batch infill strategy for efficient global optimization. , 2016, , .		3
67	Improving Symbolic Regression through a semantics-driven framework. , 2016, , .		0
68	A study on the effectiveness of constraint handling schemes within Efficient Global Optimization framework. , 2016, , .		5
69	Multi-Objective Optimization With Multiple Spatially Distributed Surrogates. Journal of Mechanical Design, Transactions of the ASME, 2016, 138, .	1.7	26
70	Multiple surrogate assisted multiobjective optimization using improved pre-selection. , 2016, , .		19
71	Finding robust solutions for resource constrained project scheduling problems involving uncertainties. , 2016, , .		5
72	Optimum redesign of scale-free networks with robustness and cost considerations. , 2016, , .		0

#	ARTICLE	IF	CITATIONS
73	A CUDA Implementation of an Improved Decomposition Based Evolutionary Algorithm for Multi-Objective Optimization. , 2016, , .		0
74	A Nested Differential Evolution Based Algorithm for Solving Multi-objective Bilevel Optimization Problems. Lecture Notes in Computer Science, 2016, , 101-112.	1.0	3
75	Use of Infeasible Solutions During Constrained Evolutionary Search: A Short Survey. Lecture Notes in Computer Science, 2016, , 193-205.	1.0	22
76	A Study on Performance Metrics to Identify Solutions of Interest from a Trade-Off Set. Lecture Notes in Computer Science, 2016, , 66-77.	1.0	12
77	A memetic algorithm for solving bilevel optimization problems with multiple followers. , 2016, , .		5
78	A multi-objective genetic programming approach to uncover explicit and implicit equations from data. , 2015, , .		4
79	Performance of a steady state quantum genetic algorithm for multi/many-objective engineering optimization problems. , 2015, , .		1
80	An Approach to Identify Six Sigma Robust Solutions of Multi/Many-Objective Engineering Design Optimization Problems. Journal of Mechanical Design, Transactions of the ASME, 2015, 137, .	1.7	7
81	Six-Sigma Robust Design Optimization Using a Many-Objective Decomposition-Based Evolutionary Algorithm. IEEE Transactions on Evolutionary Computation, 2015, 19, 490-507.	7.5	56
82	A memetic algorithm for solving single objective bilevel optimization problems. , 2015, , .		16
83	Characterizing Pareto Front Approximations in Many-objective Optimization. , 2015, , .		5
84	Re-design for Robustness: An Approach Based on Many Objective Optimization. Lecture Notes in Computer Science, 2015, , 343-357.	1.0	1
85	Development of optimization methods to deal with current challenges in engineering design optimization. AI Communications, 2014, 29, 219-221.	0.8	6
86	A hybrid surrogate based algorithm (HSBA) to solve computationally expensive optimization problems. , 2014, , .		4
87	Solving problems with a mix of hard and soft constraints using modified infeasibility driven evolutionary algorithm (IDEA-M). , 2014, , .		3
88	A benchmark generator for dynamic capacitated arc routing problems. , 2014, , .		5
89	A memetic algorithm with a new split scheme for solving dynamic capacitated arc routing problems. , 2014, , .		18
90	Application specific instance generator and a memetic algorithm for capacitated arc routing problems. Transportation Research Part C: Emerging Technologies, 2014, 43, 249-266.	3.9	7

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91	Optimum Oil Production Planning Using Infeasibility Driven Evolutionary Algorithm. Evolutionary Computation, 2013, 21, 65-82.	2.3	28
92	A Pareto Corner Search Evolutionary Algorithm and Dimensionality Reduction in Many-Objective Optimization Problems. IEEE Transactions on Evolutionary Computation, 2011, 15, 539-556.	7.5	268
93	Performance of a hybrid EA-DE-memetic algorithm on CEC 2011 real world optimization problems. , 2011, , .		20
94	C-PSA: Constrained Pareto simulated annealing for constrained multi-objective optimization. Information Sciences, 2010, 180, 2499-2513.	4.0	54
95	Performance of infeasibility empowered memetic algorithm for CEC 2010 constrained optimization problems. , 2010, , .		27
96	Surrogate assisted Simulated Annealing (SASA) for constrained multi-objective optimization. , 2010, , .		21
97	Divide and Conquer in Coevolution: A Difficult Balancing Act. Adaptation, Learning, and Optimization, 2010, , 117-138.	0.5	16
98	Performance of Infeasibility Empowered Memetic Algorithm (IEMA) on Engineering Design Problems. Lecture Notes in Computer Science, 2010, , 425-434.	1.0	3
99	An improved secondary ranking for many objective optimization problems. , 2009, , .		2
100	Infeasibility Driven Evolutionary Algorithm for Constrained Optimization. Studies in Computational Intelligence, 2009, , 145-165.	0.7	115
101	Performance of infeasibility driven evolutionary algorithm (IDEA) on constrained dynamic single objective optimization problems. , 2009, , .		45
102	A simulated annealing algorithm for constrained Multi-Objective Optimization. , 2008, , .		5
103	A Simulated Annealing Algorithm for Single Objective Trans-Dimensional Optimization Problems. , 2008, , .		4
104	On the effect of mass and stiffness unbalance on helicopter tail rotor system behavior. Aircraft Engineering and Aerospace Technology, 2008, 80, 129-138.	0.8	9
105	Infeasibility Driven Evolutionary Algorithm (IDEA) for Engineering Design Optimization. Lecture Notes in Computer Science, 2008, , 104-115.	1.0	34
106	A Study on the Performance of Substitute Distance Based Approaches for Evolutionary Many Objective Optimization. Lecture Notes in Computer Science, 2008, , 401-410.	1.0	29
107	Adjusting normalization bounds to improve hypervolume based search for expensive multi-objective optimization. Complex & Intelligent Systems, 0, , 1.	4.0	3