Abhishek Gupta

List of Publications by Year
in descending order

149 papers	6,025 citations	101384 36 h-index	85405 71 g-index
152 all docs	152 docs citations	152 times ranked	5195 citing authors

#	Article	IF	Citations
1	Adversary Agnostic Robust Deep Reinforcement Learning. IEEE Transactions on Neural Networks and Learning Systems, 2023, 34, 6146-6157.	7.2	2
2	Scalable Transfer Evolutionary Optimization: Coping With Big Task Instances. IEEE Transactions on Cybernetics, 2023, 53, 6160-6172.	6.2	0
3	Towards Faster Vehicle Routing by Transferring Knowledge From Customer Representation. IEEE Transactions on Intelligent Transportation Systems, 2022, 23, 952-965.	4.7	14
4	From Multitask Gradient Descent to Gradient-Free Evolutionary Multitasking: A Proof of Faster Convergence. IEEE Transactions on Cybernetics, 2022, 52, 8561-8573.	6.2	13
5	Frame-Correlation Transfers Trigger Economical Attacks on Deep Reinforcement Learning Policies. IEEE Transactions on Cybernetics, 2022, 52, 7577-7590.	6.2	3
6	Threshold fine-tuning of money laundering scenarios through multi-dimensional optimization techniques. Journal of Money Laundering Control, 2022, 25, 72-78.	0.7	4
7	Evolutionary Machine Learning With Minions: A Case Study in Feature Selection. IEEE Transactions on Evolutionary Computation, 2022, 26, 130-144.	7.5	18
8	Mosquito Olfactory Response Ensemble enables pattern discovery by curating a behavioral and electrophysiological response database. IScience, 2022, 25, 103938.	1.9	1
9	Fsp27 plays a crucial role in muscle performance. American Journal of Physiology - Endocrinology and Metabolism, 2022, 322, E331-E343.	1.8	2
10	Functional olfactory evolution in Drosophila suzukii and the subgenus Sophophora. IScience, 2022, 25, 104212.	1.9	12
11	Guest Editorial Special Issue on Multitask Evolutionary Computation. IEEE Transactions on Evolutionary Computation, 2022, 26, 202-205.	7.5	1
12	Generalizing Transfer Bayesian Optimization to Source-Target Heterogeneity. IEEE Transactions on Automation Science and Engineering, 2021, 18, 1754-1765.	3.4	14
13	Minimalistic Attacks: How Little It Takes to Fool Deep Reinforcement Learning Policies. IEEE Transactions on Cognitive and Developmental Systems, 2021, 13, 806-817.	2.6	17
14	Explicit Evolutionary Multitasking for Combinatorial Optimization: A Case Study on Capacitated Vehicle Routing Problem. IEEE Transactions on Cybernetics, 2021, 51, 3143-3156.	6.2	95
15	Cognizant Multitasking in Multiobjective Multifactorial Evolution: MO-MFEA-II. IEEE Transactions on Cybernetics, 2021, 51, 1784-1796.	6.2	90
16	Solving Generalized Vehicle Routing Problem With Occasional Drivers via Evolutionary Multitasking. IEEE Transactions on Cybernetics, 2021, 51, 3171-3184.	6.2	55
17	Recent Advances and Applications of Bacterial Cellulose in Biomedicine. Polymers, 2021, 13, 412.	2.0	109
18	Simple Scalable Fabrication of Laser-Induced Graphene Composite Membranes for Water Treatment. ACS ES&T Water, 2021, 1, 881-887.	2.3	24

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19	Non-linear Domain Adaptation in Transfer Evolutionary Optimization. Cognitive Computation, 2021, 13, 290-307.	3.6	26
20	Understanding Consumer Product Sentiments through Supervised Models on Cloud: Pre and Post COVID. Webology, 2021, 18, 406-415.	0.3	7
21	Can Transfer Neuroevolution Tractably Solve Your Differential Equations?. IEEE Computational Intelligence Magazine, 2021, 16, 14-30.	3.4	11
22	The Mould War: Developing an Armamentarium against Fungal Pathogens Utilising Thymoquinone, Ocimene, and Miramistin within Bacterial Cellulose Matrices. Materials, 2021, 14, 2654.	1.3	5
23	Learnable Evolutionary Search Across Heterogeneous Problems via Kernelized Autoencoding. IEEE Transactions on Evolutionary Computation, 2021, 25, 567-581.	7.5	31
24	A multivariable transmission line protection scheme using signal processing techniques. IET Generation, Transmission and Distribution, 2021, 15, 3115-3137.	1.4	10
25	Coelogin ameliorates metabolic dyshomeostasis by regulating adipogenesis and enhancing energy expenditure in adipose tissue. Pharmacological Research, 2021, 172, 105776.	3.1	6
26	Electrochemical Removal of Organic and Inorganic Pollutants Using Robust Laser-Induced Graphene Membranes. ACS Applied Materials & Interfaces, 2021, 13, 1452-1462.	4.0	44
27	Solution Representation Learning in Multi-Objective Transfer Evolutionary Optimization. IEEE Access, 2021, 9, 41844-41860.	2.6	16
28	Low-Voltage Bacterial and Viral Killing Using Laser-Induced Graphene-Coated Non-woven Air Filters. ACS Applied Materials & Interfaces, 2021, 13, 59373-59380.	4.0	26
29	Multifactorial Evolutionary Algorithm With Online Transfer Parameter Estimation: MFEA-II. IEEE Transactions on Evolutionary Computation, 2020, 24, 69-83.	7.5	219
30	Multi-task gradient descent for multi-task learning. Memetic Computing, 2020, 12, 355-369.	2.7	13
31	Memetic Multi-agent optimization with Problem Reformulation by Coordinate Rotation. , 2020, , .		0
32	Synthesis of Silver Nanoparticles Using Curcumin-Cyclodextrins Loaded into Bacterial Cellulose-Based Hydrogels for Wound Dressing Applications. Biomacromolecules, 2020, 21, 1802-1811.	2.6	224
33	Synthesis of Hydrogels Made of Poly-Î³-Glutamic Acid (Î³-PGA) for Potential Applications as Probiotic-Delivery Vehicles. Applied Sciences (Switzerland), 2020, 10, 2787.	1.3	3
34	Pay-Per-Flight Dynamic Pricing of UAV Operations. , 2020, , .		0
35	Genetic Algorithm and Its Advances in Embracing Memetics. Studies in Computational Intelligence, 2019, , 61-84.	0.7	2
36	Evolutionary Multitasking via Explicit Autoencoding. IEEE Transactions on Cybernetics, 2019, 49, 3457-3470.	6.2	214

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37	AIR₅: Five Pillars of Artificial Intelligence Research. IEEE Transactions on Emerging Topics in Computational Intelligence, 2019, 3, 411-415.	3.4	33
38	Processing Techniques for Scanning Electron Microscopy Imaging of Giant Cells from Giant Cell Tumors of Bone. Microscopy and Microanalysis, 2019, 25, 1376-1382.	0.2	1
39	Can route planning be smarter with transfer optimization?. , 2019, , .		2
40	Silver-doped laser-induced graphene for potent surface antibacterial activity and anti-biofilm action. Chemical Communications, 2019, 55, 6890-6893.	2.2	58
41	CIDE Proteins in Human Health and Disease. Cells, 2019, 8, 238.	1.8	34
42	Laser-Induced Grapheneâ€"PVA Composites as Robust Electrically Conductive Water Treatment Membranes. ACS Applied Materials & Interfaces, 2019, 11, 10914-10921.	4.0	78
43	The Blessing of Dimensionality in Many-Objective Search: An Inverse Machine Learning Insight. , 2019, , .		4
44	Coping with Big Data in Transfer Optimization. , 2019, , .		6
45	Multitask Knowledge Transfer Across Problems. Adaptation, Learning, and Optimization, 2019, , 83-92.	0.5	6
46	Introduction: The Rise of Memetics in Computing. Adaptation, Learning, and Optimization, 2019, , 1-13.	0.5	0
47	Future Direction: Compressed Meme Space Evolutions. Adaptation, Learning, and Optimization, 2019, , 93-101.	0.5	0
48	The production and application of hydrogels for wound management: A review. European Polymer Journal, 2019, 111, 134-151.	2.6	193
49	Back to the Roots: Multi-X Evolutionary Computation. Cognitive Computation, 2019, 11, 1-17.	3.6	28
50	Strategies for Collection, Treatment, and Recycling of Fly Ash from Thermal Power Plants. Energy, Environment, and Sustainability, 2019, , 91-103.	0.6	2
51	Fast transfer Gaussian process regression with large-scale sources. Knowledge-Based Systems, 2019, 165, 208-218.	4.0	19
52	Curbing Negative Influences Online for Seamless Transfer Evolutionary Optimization. IEEE Transactions on Cybernetics, 2019, 49, 4365-4378.	6.2	74
53	A Generator for Multiobjective Test Problems With Difficult-to-Approximate Pareto Front Boundaries. IEEE Transactions on Evolutionary Computation, 2019, 23, 556-571.	7.5	55
54	Compressed representation for higher-level meme space evolution: a case study on big knapsack problems. Memetic Computing, 2019, 11, 3-17.	2.7	13

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55	Multiproblem Surrogates: Transfer Evolutionary Multiobjective Optimization of Computationally Expensive Problems. IEEE Transactions on Evolutionary Computation, 2019, 23, 15-28.	7.5	84
56	Evolutionary Optimization of Expensive Multiobjective Problems With Co-Sub-Pareto Front Gaussian Process Surrogates. IEEE Transactions on Cybernetics, 2019, 49, 1708-1721.	6.2	64
57	Canonical Memetic Algorithms. Adaptation, Learning, and Optimization, 2019, , 17-26.	0.5	1
58	The Memetic Automaton. Adaptation, Learning, and Optimization, 2019, , 47-61.	0.5	3
59	An investigation into the anti-microbial properties of bacterial cellulose wound dressings loaded with curcumin:hydroxypropyl-Î²-cyclodextrin supramolecular inclusion complex An investigation into the anti-microbial properties of bacterial cellulose wound dressings loaded with curcumin:hydroxypropyl-Î²-cyclodextrin supramolecular inclusion complex. Access Microbiology, 2019, 1, .	0.2	3
60	Sequential Knowledge Transfer Across Problems. Adaptation, Learning, and Optimization, 2019, , 63-82.	0.5	4
61	Data-driven risk assessment and multicriteria optimization of UAV operations. Aerospace Science and Technology, 2018, 77, 510-523.	2.5	32
62	Insights on Transfer Optimization: Because Experience is the Best Teacher. IEEE Transactions on Emerging Topics in Computational Intelligence, 2018, 2, 51-64.	3.4	223
63	Facile embedding of gold nanostructures in the hole transporting layer for efficient polymer solar cells. Organic Electronics, 2018, 54, 148-153.	1.4	7
64	Objective Reduction in Many-Objective Optimization: Evolutionary Multiobjective Approaches and Comprehensive Analysis. IEEE Transactions on Evolutionary Computation, 2018, 22, 189-210.	7.5	73
65	A New Decomposition-Based NSGA-II for Many-Objective Optimization. IEEE Transactions on Systems, Man, and Cybernetics: Systems, 2018, 48, 1191-1210.	5.9	197
66	Evolutionary Multi-task Learning for Modular Knowledge Representation in Neural Networks. Neural Processing Letters, 2018, 47, 993-1009.	2.0	35
67	Power Loss Reduction in a Radial Distribution Network Using Distributed Generation. , 2018, , .		3
68	Power Loss Minimization in a Radial Distribution System with Distributed Generation. , 2018, , .		21
69	Poly-Gamma-Glutamic Acid (Î³-PGA)-Based Encapsulation of Adenovirus to Evade Neutralizing Antibodies. Molecules, 2018, 23, 2565.	1.7	31
70	Optimization Algorithms Combining (Meta)heuristics and Mathematical Programming and Its Application in Engineering. Mathematical Problems in Engineering, 2018, 2018, 1-3.	0.6	18
71	Addressing expensive multi-objective games with postponed preference articulation via memetic co-evolution. Knowledge-Based Systems, 2018, 154, 17-31.	4.0	10
72	Dynamic Games With Asymmetric Information and Resource Constrained Players With Applications to Security of Cyberphysical Systems. IEEE Transactions on Control of Network Systems, 2017, 4, 71-81.	2.4	31

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73	Multiobjective Multifactorial Optimization in Evolutionary Multitasking. IEEE Transactions on Cybernetics, 2017, 47, 1652-1665.	6.2	252
74	PC12 live cell ultrasensitive neurotransmitter signaling using high quantum yield sulphur doped carbon dots and its extracellular Ca2+ ion dependence. Sensors and Actuators B: Chemical, 2017, 245, 137-145.	4.0	28
75	Coevolutionary multitasking for concurrent global optimization: With case studies in complex engineering design. Engineering Applications of Artificial Intelligence, 2017, 64, 13-24.	4.3	59
76	Autoencoding Evolutionary Search With Learning Across Heterogeneous Problems. IEEE Transactions on Evolutionary Computation, 2017, 21, 760-772.	7.5	89
77	Knowledge Transfer Through Machine Learning in Aircraft Design. IEEE Computational Intelligence Magazine, 2017, 12, 48-60.	3.4	51
78	Information structures and values in zero-sum stochastic games. , 2017, , .		4
79	Linearized domain adaptation in evolutionary multitasking. , 2017, , .		102
80	A novel technique for optimal allocation of capacitors in radial distribution system. , 2017, , .		0
81	Artificial bee colony based optimal allocation of micro-turbines for voltage stability improvement of distribution systems. , 2017, , .		2
82	Application of grey wolf optimization in order reduction of large scale LTI systems. , 2017, , .		9
83	Optimal Allocation of Capacitor Bank in Radial Distribution System using Analytical Approach. International Journal of Electrical and Computer Engineering, 2017, 7, 748.	0.5	3
84	Evolutionary multitasking in permutation-based combinatorial optimization problems: Realization with TSP, QAP, LOP, and JSP. , 2016, , .		70
85	Evolutionary multitasking across single and multi-objective formulations for improved problem solving. , 2016, , .		30
86	Genetic transfer or population diversification? Deciphering the secret ingredients of evolutionary multitask optimization. , 2016, , .		28
87	Application of route flexibility in data-starved vehicle routing problem with time windows. , 2016, , .		1
88	Effect of surface chemistry and morphology of gold nanoparticle on the structure and activity of common blood proteins. New Journal of Chemistry, 2016, 40, 4879-4883.	1.4	26
89	Paper strip based and live cell ultrasensitive lead sensor using carbon dots synthesized from biological media. Sensors and Actuators B: Chemical, 2016, 232, 107-114.	4.0	75
90	Evolutionary Multi-task Learning for Modular Training of Feedforward Neural Networks. Lecture Notes in Computer Science, 2016, , 37-46.	1.0	26

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91	Complex and Intelligent Systems in Manufacturing. IEEE Potentials, 2016, 35, 23-28.	0.2	7
92	Characterisation and *in vitro* antimicrobial activity of biosynthetic silver-loaded bacterial cellulose hydrogels. Journal of Microencapsulation, 2016, 33, 725-734.	1.2	29
93	Evolutionary Multitasking: A Computer Science View of Cognitive Multitasking. Cognitive Computation, 2016, 8, 125-142.	3.6	183
94	Privacy-aware stochastic control with a â€œsnoopyâ€•adversary: A game-theoretic approach. , 2016, , .		0
95	Carbon dots for naked eye colorimetric ultrasensitive arsenic and glutathione detection. Biosensors and Bioelectronics, 2016, 81, 465-472.	5.3	136
96	The Boon of Gene-Culture Interaction for Effective Evolutionary Multitasking. Lecture Notes in Computer Science, 2016, , 54-65.	1.0	8
97	Multifactorial Evolution: Toward Evolutionary Multitasking. IEEE Transactions on Evolutionary Computation, 2016, 20, 343-357.	7.5	531
98	Scheduling, pricing, and efficiency of non-preemptive flexible loads under direct load control. , 2015, , .		9
99	Energy aware diffusion in Wireless Sensor Networks. , 2015, , .		0
100	Nitrogen-doped, thiol-functionalized carbon dots for ultrasensitive Hg(ii) detection. Chemical Communications, 2015, 51, 10750-10753.	2.2	114
101	Lysine and dithiothreitol promoted ultrasensitive optical and colorimetric detection of mercury using anisotropic gold nanoparticles. Journal of Materials Chemistry C, 2015, 3, 6962-6965.	2.7	24
102	An empirical algorithm for relative value iteration for average-cost MDPs. , 2015, , .		8
103	One pot synthesis of doxorubicin loaded gold nanoparticles for sustained drug release. RSC Advances, 2015, 5, 97330-97334.	1.7	30
104	Equilibria in two-stage electricity markets. , 2015, , .		5
105	On the Existence of Optimal Policies for a Class of Static and Sequential Dynamic Teams. SIAM Journal on Control and Optimization, 2015, 53, 1681-1712.	1.1	37
106	Reversible Photoswitching of Carbon Dots. Scientific Reports, 2015, 5, 11423.	1.6	60
107	Anisotropic gold nanoparticles for the highly sensitive colorimetric detection of glucose in human urine. RSC Advances, 2015, 5, 40849-40855.	1.7	10
108	Direct Visualization of Lead Corona and Its Nanomolar Colorimetric Detection Using Anisotropic Gold Nanoparticles. ACS Applied Materials & Interfaces, 2015, 7, 5039-5044.	4.0	26

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109	A Batch System with Efficient Adaptive Scheduling for Malleable and Evolving Applications. , 2015, , .		37
110	Solving multi-vehicle profitable tour problem via knowledge adoption in evolutionary bi-level programming. , 2015, , .		2
111	An evolutionary algorithm with adaptive scalarization for multiobjective bilevel programs. , 2015, , .		12
112	Time-Resolved Emission Reveals Ensemble of Emissive States as the Origin of Multicolor Fluorescence in Carbon Dots. Nano Letters, 2015, 15, 8300-8305.	4.5	255
113	A Bilevel Multi-objective Road Pricing Model for Economic, Environmental and Health Sustainability. Transportation Research Procedia, 2014, 3, 393-402.	0.8	41
114	A three-stage Colonel Blotto game with applications to cyberphysical security. , 2014, , .		19
115	On the existence of optimal strategies in multi-agent stochastic teams. , 2014, , .		2
116	Overcoming the Scalability Challenges of Epidemic Simulations on Blue Waters. , 2014, , .		25
117	Dynamic incentive design in multi-stage linear-Gaussian games with asymmetric information: A common information based approach. , 2014, , .		2
118	Orientational switching of protein conformation as a function of nanoparticle curvature and their geometrical fitting. Journal of Chemical Physics, 2014, 141, 084707.	1.2	18
119	Triple Band Annular Ring Loaded Stacked Circular Patch Microstrip Antenna. Wireless Personal Communications, 2014, 77, 633-647.	1.8	8
120	Common Information Based Markov Perfect Equilibria for Stochastic Games With Asymmetric Information: Finite Games. IEEE Transactions on Automatic Control, 2014, 59, 555-570.	3.6	58
121	Common Information Based Markov Perfect Equilibria for Linear-Gaussian Games with Asymmetric Information. SIAM Journal on Control and Optimization, 2014, 52, 3228-3260.	1.1	32
122	Gold nanoparticle chitosan composite hydrogel beads show efficient removal of methyl parathion from waste water. RSC Advances, 2014, 4, 39830.	1.7	35
123	Morphological effect of gold nanoparticles on the adsorption of bovine serum albumin. Physical Chemistry Chemical Physics, 2014, 16, 20471-20482.	1.3	53
124	The topology of information on the space of probability measures over Polish spaces. Journal of Mathematical Economics, 2014, 52, 98-111.	0.4	11
125	Functional Molecular Lumino-Materials to Probe Serum Albumins: Solid Phase Selective Staining Through Noncovalent Fluorescent Labeling. ACS Applied Materials & Interfaces, 2014, 6, 10231-10237.	4.0	21
126	Existence of optimal strategies in a class of dynamic stochastic teams. , 2014, , .		1

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127	Strategies for Antimicrobial Drug Delivery to Biofilm. Current Pharmaceutical Design, 2014, 21, 43-66.	0.9	75
128	Optimal Galerkin Finite Element methods for non-isothermal Liquid Composite Moulding process simulations. International Journal of Heat and Mass Transfer, 2013, 64, 609-622.	2.5	6
129	Controlling the Fate of Protein Corona by Tuning Surface Properties of Nanoparticles. Journal of Physical Chemistry Letters, 2013, 4, 3747-3752.	2.1	50
130	Towards Efficient Mapping, Scheduling, and Execution of HPC Applications on Platforms in Cloud. , 2013, , .		6
131	Applying Bi-level Multi-Objective Evolutionary Algorithms for Optimizing Composites Manufacturing Processes. Lecture Notes in Computer Science, 2013, , 615-627.	1.0	2
132	Jamming in mobile networks: A game-theoretic approach. Numerical Algebra, Control and Optimization, 2013, 3, 1-30.	1.0	10
133	On myopic strategies in dynamic adversarial team decision problems. , 2012, , .		0
134	A dynamic transmitter-jammer game with asymmetric information. , 2012, , .		29
135	Adaptive Message Clustering for Distributed Agent-Based Systems. , 2011, , .		0
136	Nonlinear dynamic stability of composite plates with piezoelectric layers subjected to periodic in-plane load. IES Journal Part A: Civil and Structural Engineering, 2011, 4, 17-28.	0.4	6
137	DYNAMIC STABILITY OF LAMINATED COMPOSITE PLATES WITH PIEZOELECTRIC LAYERS SUBJECTED TO PERIODIC IN-PLANE LOAD. International Journal of Structural Stability and Dynamics, 2011, 11, 297-311.	1.5	10
138	Lavandulifolioside B: a new phenylethanoid glycoside from the aerial parts of<i>Stachys lavandulifolia</i>Vahl. Natural Product Research, 2011, 25, 8-16.	1.0	34
139	Decentralized Opportunistic Navigation Strategies for Multi-agent Systems in the Presence of an Adversary. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 11809-11814.	0.4	2
140	Nonlinear dynamic stability of laminated composite shells integrated with piezoelectric layers in thermal environment. Acta Mechanica, 2011, 218, 295-308.	1.1	24
141	One-stage control over an adversarial channel with finite codelength. , 2011, , .		1
142	Aetiology of Minor Crimes - Are Individuals Committing Minor Crimes Influenced more by Environmental Factors or Genetic Traits?. Journal of Forensics Research, 2011, 02, .	0.1	0
143	Pore Subâ€Features Reproducibility in Direct Microscopic and Livescan Imagesâ€"Their Reliability in Personal Identification. Journal of Forensic Sciences, 2010, 55, 970-975.	0.9	12
144	Optimal control in the presence of an intelligent jammer with limited actions. , 2010, , .		168

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145	Forgery by Scanning. Journal of the Canadian Society of Forensic Science, 2009, 42, 195-199.	0.7	0
146	Development of a perillyl alcohol topical cream formulation. International Journal of Pharmaceutics, 2004, 269, 373-383.	2.6	34
147	On-line high-performance liquid chromatography method for analyte quantitation from pressurized metered dose inhalers. Journal of Chromatography A, 2004, 1033, 101-106.	1.8	17
148	Balancing Ethanol Cosolvent Concentration with Product Performance in 134a-Based Pressurized Metered Dose Inhalers. Journal of Aerosol Medicine and Pulmonary Drug Delivery, 2003, 16, 167-174.	1.2	54
149	Anti-Inflammatory Potential of Ginseng for Wound Healing. , 0, , .		0