Kang Tai

List of Publications by Year
in descending order

124 papers	3,115 citations	136740 32 h-index	182168 51 g-index
129 all docs	129 docs citations	129 times ranked	2208 citing authors

#	ARTICLE	IF	CITATIONS
1	A lifecycle cost model considering both component and system burn-in for operationally unrepairable systems. International Journal of Quality and Reliability Management, 2022, 39, 2081-2103.	1.3	1
2	DC-Distributed Power System Modeling and Hardware-in-the-Loop (HIL) Evaluation of Fuel Cell-Powered Marine Vessel. IEEE Journal of Emerging and Selected Topics in Industrial Electronics, 2022, 3, 797-808.	3.0	8
3	Optimal design of electro-hydraulic active steering system for intelligent transportation environment. Energy, 2021, 214, 118911.	4.5	3
4	Vulnerability analysis of critical infrastructure network. International Journal of Critical Infrastructure Protection, 2021, 35, 100472.	2.9	6
5	Topological network and GIS approach to modeling earthquake risk of infrastructure systems: A case study in Japan. Applied Geography, 2021, 127, 102392.	1.7	6
6	Network topological approach to modeling accident causations and characteristics: Analysis of railway incidents in Japan. Reliability Engineering and System Safety, 2020, 193, 106626.	5.1	48
7	On the Modelling of Fuel Cell-Fed Power System in Electrified Vessels. , 2020, , .		5
8	A novel self-adaptive hybrid multi-objective meta-heuristic for reliability design of trusses with simultaneous topology, shape and sizing optimisation design variables. Structural and Multidisciplinary Optimization, 2019, 60, 1937-1955.	1.7	33
9	Modelling critical infrastructure network interdependencies and failure. International Journal of Critical Infrastructures, 2019, 15, 1.	0.1	0
10	An application of evolutionary system identification algorithm in modelling of energy production system. Measurement: Journal of the International Measurement Confederation, 2018, 114, 122-131.	2.5	48
11	Material yield strain identification using energy absorption. Journal of Strain Analysis for Engineering Design, 2018, 53, 463-469.	1.0	0
12	Modeling infrastructure interdependencies by integrating network and fuzzy set theory. International Journal of Critical Infrastructure Protection, 2018, 22, 51-61.	2.9	27
13	True stress measurement of nuclear fuel rod cladding material subjected to DSA regime. Neural Computing and Applications, 2017, 28, 119-126.	3.2	3
14	Analyzing Impact on Critical Infrastructure Using Input-Output Interdependency Model: Case Studies. ASCE-ASME Journal of Risk and Uncertainty in Engineering Systems, Part A: Civil Engineering, 2017, 3, 04017016.	1.1	4
15	System Identification: Survey on Modeling Methods and Models. Advances in Intelligent Systems and Computing, 2017, , 607-615.	0.5	8
16	Thermo-mechanical modeling of metallic alloys for nuclear engineering applications. Measurement: Journal of the International Measurement Confederation, 2017, 97, 242-250.	2.5	6
17	Modeling of a magneto-rheological (MR) damper using genetic programming. Journal of Vibroengineering, 2017, 19, 3169-3177.	0.5	6
18	Constraint handling in probability collectives using a modified feasibility-based rule. International Journal of Computational Science and Engineering, 2016, 13, 303.	0.4	0

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19	Evaluation of supply chain resilience enhancement with multi-tier supplier selection policy using agent-based modeling. , 2016, , .		3
20	Analytical gradient-based optimization of offshore wind turbine substructures under fatigue and extreme loads. Marine Structures, 2016, 47, 23-41.	1.6	59
21	Framework based on number of basis functions complexity measure in investigation of the power characteristics of direct methanol fuel cell. Chemometrics and Intelligent Laboratory Systems, 2016, 155, 7-18.	1.8	24
22	A novel evolutionary approach in modeling wear depth of laser engineering titanium coatings. Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture, 2016, 230, 1066-1075.	1.5	4
23	Density characteristics of laser-sintered three-dimensional printing parts investigated by using an integrated finite element analysisâ€"based evolutionary algorithm approach. Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture, 2016, 230, 100-110.	1.5	6
24	Constraint handling in probability collectives using a modified feasibility-based rule. International Journal of Computational Science and Engineering, 2016, 13, 303.	0.4	1
25	An ensemble evolutionary approach in evaluation of surface finish reduction of vibratory finishing process. Engineering Computations, 2015, 32, 1214-1229.	0.7	2
26	Evolving genetic programming models of higher generalization ability in modelling of turning process. Engineering Computations, 2015, 32, 2216-2234.	0.7	9
27	A new simulation approach of genetic programming in modelling of soil water retention property of unsaturated soil. Engineering Computations, 2015, 32, 914-930.	0.7	9
28	Optimization of Offshore Wind Turbine Support Structures Using an Analytical Gradient-based Method. Energy Procedia, 2015, 80, 100-107.	1.8	23
29	Investigation of mechanical strength of 2D nanoscale structures using a molecular dynamics based computational intelligence approach. International Journal of Modern Physics B, 2015, 29, 1450242.	1.0	3
30	Probability Collectives. Intelligent Systems Reference Library, 2015, , .	1.0	8
31	Introduction to Optimization. Intelligent Systems Reference Library, 2015, , 1-13.	1.0	0
32	Probability Collectives: A Distributed Optimization Approach. Intelligent Systems Reference Library, 2015, , 15-35.	1.0	1
33	Model development based on evolutionary framework for condition monitoring of a lathe machine. Measurement: Journal of the International Measurement Confederation, 2015, 73, 95-110.	2.5	13
34	Application of artificial intelligence technique for modelling elastic properties of 2D nanoscale material. Molecular Simulation, 2015, 41, 1143-1152.	0.9	7
35	An integrated computational approach for determining the elastic properties of boron nitride nanotubes. International Journal of Mechanics and Materials in Design, 2015, 11, 1-14.	1.7	27
36	Probability Collectives for Discrete and Mixed Variable Problems. Intelligent Systems Reference Library, 2015, , 95-125.	1.0	0

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37	Constrained Probability Collectives with a Penalty Function Approach. Intelligent Systems Reference Library, 2015, , 61-72.	1.0	0
38	Constrained Probability Collectives: A Heuristic Approach. Intelligent Systems Reference Library, 2015, , 37-60.	1.0	0
39	Constrained Probability Collectives with Feasibility Based RuleÂI. Intelligent Systems Reference Library, 2015, , 73-93.	1.0	0
40	Combined CI-MD approach in formulation of engineering moduli of single layer graphene sheet. Simulation Modelling Practice and Theory, 2014, 48, 93-111.	2.2	26
41	Multi-criteria probability collectives. International Journal of Bio-Inspired Computation, 2014, 6, 369.	0.6	5
42	State-of-the-art in empirical modelling of rapid prototyping processes. Rapid Prototyping Journal, 2014, 20, 164-178.	1.6	94
43	Estimation of mechanical properties of nanomaterials using artificial intelligence methods. Applied Physics A: Materials Science and Processing, 2014, 116, 1099-1107.	1.1	31
44	Performance evaluation of microbial fuel cell by artificial intelligence methods. Expert Systems With Applications, 2014, 41, 1389-1399.	4.4	83
45	A multi-gene genetic programming model for estimating stress-dependent soil water retention curves. Computational Geosciences, 2014, 18, 45-56.	1.2	68
46	A modified multi-gene genetic programming approach for modelling true stress of dynamic strain aging regime of austenitic stainless steel 304. Meccanica, 2014, 49, 1193-1209.	1.2	40
47	Measurement of properties of graphene sheets subjected to drilling operation using computer simulation. Measurement: Journal of the International Measurement Confederation, 2014, 50, 50-62.	2.5	47
48	An integrated SRM-multi-gene genetic programming approach for prediction of factor of safety of 3-D soil nailed slopes. Engineering Applications of Artificial Intelligence, 2014, 30, 30-40.	4.3	83
49	An embedded simulation approach for modeling the thermal conductivity of 2D nanoscale material. Simulation Modelling Practice and Theory, 2014, 44, 1-13.	2.2	25
50	Estimation of factor of safety of rooted slope using an evolutionary approach. Ecological Engineering, 2014, 64, 314-324.	1.6	27
51	A molecular dynamics based artificial intelligence approach for characterizing thermal transport in nanoscale material. Thermochimica Acta, 2014, 594, 39-49.	1.2	26
52	Stepwise approach for the evolution of generalized genetic programming model in prediction of surface finish of the turning process. Advances in Engineering Software, 2014, 78, 16-27.	1.8	40
53	Mathematical modelling of burr height of the drilling process using a statistical-based multi-gene genetic programming approach. International Journal of Advanced Manufacturing Technology, 2014, 73, 113-126.	1.5	37
54	Formulation of bead width model of an SLM prototype using modified multi-gene genetic programming approach. International Journal of Advanced Manufacturing Technology, 2014, 73, 375-388.	1.5	35

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55	Estimation of Pore Water Pressure of Soil Using Genetic Programming. Geotechnical and Geological Engineering, 2014, 32, 765-772.	0.8	6
56	A Computational Intelligence-Based Genetic Programming Approach for the Simulation of Soil Water Retention Curves. Transport in Porous Media, 2014, 103, 497-513.	1.2	37
57	A hybrid $\text{M}5^\prime$ -genetic programming approach for ensuring greater trustworthiness of prediction ability in modelling of FDM process. Journal of Intelligent Manufacturing, 2014, 25, 1349-1365.	4.4	56
58	An Improved Multi-Gene Genetic Programming Approach for the Evolution of Generalized Model in Modelling of Rapid Prototyping Process. Lecture Notes in Computer Science, 2014, , 218-226.	1.0	3
59	On the Study of Machining Characteristics of 2-D Nanoscale Material. Nanoscience and Nanotechnology Letters, 2014, 6, 1079-1086.	0.4	3
60	Aircraft morphing wing design by using partial topology optimization. Structural and Multidisciplinary Optimization, 2013, 48, 1109-1128.	1.7	27
61	Classification-driven model selection approach of genetic programming in modelling of turning process. International Journal of Advanced Manufacturing Technology, 2013, 69, 1137-1151.	1.5	33
62	Selection of a robust experimental design for the effective modeling of nonlinear systems using Genetic Programming. , 2013, , .		19
63	Empirical analysis of model selection criteria for genetic programming in modeling of time series system. , 2013, , .		19
64	A Probability Collectives Approach for Multi-Agent Distributed and Cooperative Optimization with Tolerance for Agent Failure. Studies in Computational Intelligence, 2013, , 175-201.	0.7	7
65	Identifying vulnerabilities in critical infrastructures by network analysis. International Journal of Critical Infrastructures, 2013, 9, 190.	0.1	11
66	Genetic Programming for Modeling Vibratory Finishing Process: Role of Experimental Designs and Fitness Functions. Lecture Notes in Computer Science, 2013, , 23-31.	1.0	13
67	Predicting the mechanical characteristics of hydrogen functionalized graphene sheets using artificial neural network approach. Journal of Nanostructure in Chemistry, 2013, 3, 1.	5.3	38
68	Review of empirical modelling techniques for modelling of turning process. International Journal of Modelling, Identification and Control, 2013, 20, 121.	0.2	35
69	Comparison of statistical and machine learning methods in modelling of data with multicollinearity. International Journal of Modelling, Identification and Control, 2013, 18, 295.	0.2	91
70	An Agent-Based Modeling and Evolutionary Optimization Approach for Vulnerability Analysis of Critical Infrastructure Networks. Communications in Computer and Information Science, 2013, , 176-187.	0.4	9
71	Discrete optimization of truss structure using Probability Collectives. , 2012, , .		9
72	A modified feasibility-based rule for solving constrained optimization problems using Probability Collectives. , 2012, , .		7

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73	Evaluating the reliability of infrastructure networks by resilience analysis. , 2012, , .		5
74	A Probability Collectives Approach with a Feasibility-Based Rule for Constrained Optimization. Applied Computational Intelligence and Soft Computing, 2011, 2011, 1-19.	1.6	15
75	SOLVING CONSTRAINED OPTIMIZATION PROBLEMS USING PROBABILITY COLLECTIVES AND A PENALTY FUNCTION APPROACH. International Journal of Computational Intelligence and Applications, 2011, 10, 445-470.	0.6	25
76	Probability Collectives: A multi-agent approach for solving combinatorial optimization problems. Applied Soft Computing Journal, 2010, 10, 759-771.	4.1	64
77	Target matching problems and an adaptive constraint strategy for multiobjective design optimization using genetic algorithms. Computers and Structures, 2010, 88, 1064-1076.	2.4	26
78	Probability Collectives: A distributed optimization approach for constrained problems. , 2010, , .		14
79	Design of 2-DOF Compliant Mechanisms to Form Grip-and-Move Manipulators for 2D Workspace. Journal of Mechanical Design, Transactions of the ASME, 2010, 132, .	1.7	21
80	Optimization of structures under load uncertainties based on hybrid genetic algorithm. , 2008, , .		0
81	Hybrid GA multiobjective optimization for the design of compliant micro-actuators. Conference Proceedings IEEE International Conference on Systems, Man, and Cybernetics, 2008, , .	0.0	0
82	Probability Collectives for decentralized, distributed optimization: A Collective Intelligence Approach. Conference Proceedings IEEE International Conference on Systems, Man, and Cybernetics, 2008, , .	0.0	10
83	Target geometry matching problem with conflicting objectives for multiobjective topology design optimization using GA. , 2008, , .		3
84	Hybrid genetic algorithm for designing structures subjected to uncertainty. Conference Proceedings IEEE International Conference on Systems, Man, and Cybernetics, 2008, , .	0.0	3
85	Design of Grip-and-Move Manipulators Using Symmetric Path Generating Compliant Mechanisms. Journal of Mechanical Design, Transactions of the ASME, 2008, 130, .	1.7	27
86	An Enhanced Chromosome Encoding and Morphological Representation of Geometry for Structural Topology Optimization using GA. , 2007, , .		9
87	A hybrid genetic algorithm for multiobjective structural optimization. , 2007, , .		7
88	Handling objectives as adaptive constraints for multiobjective structural optimization. , 2007, , .		6
89	Multiobjective optimization of sensor network deployment by a genetic algorithm. , 2007, , .		7
90	Optimal design of flat patterns for 3D folded structures by unfolding with topological validation. CAD Computer Aided Design, 2007, 39, 898-913.	1.4	17

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91	Target-matching test problem for multiobjective topology optimization using genetic algorithms. Structural and Multidisciplinary Optimization, 2007, 34, 333-345.	1.7	44
92	Topology optimization of piezoelectric sensors/actuators for torsional vibration control of composite plates. Smart Materials and Structures, 2006, 15, 253-269.	1.8	51
93	Point interpolation collocation method for the solution of partial differential equations. Engineering Analysis With Boundary Elements, 2006, 30, 598-609.	2.0	20
94	An enhanced genetic algorithm for structural topology optimization. International Journal for Numerical Methods in Engineering, 2006, 65, 18-44.	1.5	109
95	RADIAL POINT INTERPOLATION COLLOCATION METHOD (RPICM) USING UPWIND BIASED LOCAL SUPPORT SCHEME FOR SOLVING CONVECTION-DOMINATED EQUATIONS. , 2006, , 1541-1546.		1
96	A Structural Optimization Problem Formulation for Design of Compliant Gripper Using a Genetic Algorithm. , 2006, , 456-456.		5
97	Radial point interpolation collocation method (RPICM) for partial differential equations. Computers and Mathematics With Applications, 2005, 50, 1425-1442.	1.4	55
98	Structural topology design optimization using Genetic Algorithms with a bit-array representation. Computer Methods in Applied Mechanics and Engineering, 2005, 194, 3749-3770.	3.4	124
99	Structural topology optimization using a genetic algorithm with a morphological geometric representation scheme. Structural and Multidisciplinary Optimization, 2005, 30, 113-127.	1.7	47
100	Radial point interpolation collocation method (RPICM) for the solution of nonlinear poisson problems. Computational Mechanics, 2005, 36, 298-306.	2.2	37
101	Bar€system representation for topology optimization using genetic algorithms. Engineering Computations, 2005, 22, 206-231.	0.7	15
102	Unfolding and Flat Layout Design of Non-Manifold 3D Folded Structures. Computer-Aided Design and Applications, 2004, 1, 439-447.	0.4	5
103	Graph representation for structural topology optimization using genetic algorithms. Computers and Structures, 2004, 82, 1609-1622.	2.4	65
104	An evolutionary approach for cooling system optimization in plastic injection moulding. International Journal of Production Research, 2004, 42, 2047-2061.	4.9	99
105	Evaluation and comparison of geometry representation methods for structural topology optimization. , 2003, , 2387-2389.		0
106	Topology Optimization for Maximum Natural Frequency Using Simulated Annealing and Morphological Representation. AIAA Journal, 2002, 40, 586-589.	1.5	21
107	EARLY DETECTION AND VISUALIZATION OF BREAST TUMOR WITH THERMOGRAM AND NEURAL NETWORK. Journal of Mechanics in Medicine and Biology, 2002, 02, 185-195.	0.3	25
108	Design Synthesis of Path Generating Compliant Mechanisms by Evolutionary Optimization of Topology and Shape. Journal of Mechanical Design, Transactions of the ASME, 2002, 124, 492-500.	1.7	74

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109	Topology Optimization of Compliant Mechanisms Using Evolutionary Algorithm With Design Geometry Encoded as a Graph. , 2002, , 1047.		16
110	Computational Geometric Modeling and Unfolding of 3-D Folded Structures. , 2002, , 123.		5
111	RADIAL BASIS POINT INTERPOLATION COLLOCATION METHOD FOR 2-D SOLID PROBLEM. , 2002, , .		13
112	A socio-behavioural simulation model for engineering design optimization. Engineering Optimization, 2002, 34, 341-354.	1.5	151
113	Topology optimization for maximum natural frequency using simulated annealing and morphological representation. AIAA Journal, 2002, 40, 586-589.	1.5	2
114	THE SOLUTION FOR CONVECTION-DIFFUSION EQUATIONS USING THE QUASI-INTERPOLATION SCHEME WITH LOCAL POLYNOMIAL REPRODUCTION BASED ON MOVING LEAST SQUARES. , 2002, , .		0
115	MULTIOBJECTIVE DESIGN OPTIMIZATION BY AN EVOLUTIONARY ALGORITHM. Engineering Optimization, 2001, 33, 399-424.	1.5	236
116	Dynamic analysis and design optimisation of a washing machine. International Journal of Computer Applications in Technology, 2000, 13, 324.	0.3	1
117	Design of Structures and Compliant Mechanisms by Evolutionary Optimization of Morphological Representations of Topology. Journal of Mechanical Design, Transactions of the ASME, 2000, 122, 560-566.	1.7	78
118	Topology optimization for maximum natural frequency using simulated annealing and morphological representation. , 2000, , .		3
119	Integrated Design Optimization and Analysis Using a Spreadsheet Application. International Journal of Mechanical Engineering Education, 1999, 27, 29-40.	0.6	1
120	Optimum shape and topology design using the boundary element method. International Journal of Solids and Structures, 1999, 36, 2021-2040.	1.3	10
121	Numerical study of some approaches to shape design sensitivity analysis using boundary elements. Journal of Strain Analysis for Engineering Design, 1996, 31, 361-369.	1.0	2
122	A bit-array representation GA for structural topology optimization. , 0, , .		4
123	A framework for optimization using approximate functions. , 0, , .		4
124	Development and testing of a morphological geometric representation scheme for topology design optimization using a genetic algorithm. , 0, , .		0