Shiyou Yang

List of Publications by Citations

100 papers	1,130 citations	19 h-index	30 g-index
130 ext. papers	1,378 ext. citations	2 avg, IF	4.58 L-index

#	Paper	IF	Citations
100	A particle swarm optimization-based method for multiobjective design optimizations. *IEEE Transactions on Magnetics*, **2005**, 41, 1756-1759	2	150
99	Investigation of Skewing Effects on the Vibration Reduction of Three-Phase Switched Reluctance Motors. *IEEE Transactions on Magnetics*, **2015**, 51, 1-9	2	85
98	A particle swarm optimization method with enhanced global search ability for design optimizations of electromagnetic devices. *IEEE Transactions on Magnetics*, **2006**, 42, 1107-1110	2	61
97	Initial Position Estimation in SRM Using Bootstrap Circuit Without Predefined Inductance Parameters. *IEEE Transactions on Power Electronics*, **2011**, 26, 2449-2456	7.2	54
96	Phase Current Reconstruction of Switched Reluctance Motors From DC-Link Current Under Double High-Frequency Pulses Injection. *IEEE Transactions on Industrial Electronics*, **2015**, 62, 3265-3276	8.9	51
95	Fault diagnosis scheme for open-circuit faults in switched reluctance motor drives using fast Fourier transform algorithm with bus current detection. *IET Power Electronics*, **2016**, 9, 20-30	2.2	49
94	A Modified Particle Swarm Optimization Algorithm for Global Optimizations of Inverse Problems. *IEEE Transactions on Magnetics*, **2016**, 52, 1-4	2	43
93	Online Sensorless Position Estimation for Switched Reluctance Motors Using One Current Sensor. *IEEE Transactions on Power Electronics*, **2015**, 1-1	7.2	38
92	Low-cost direct instantaneous torque control for switched reluctance motors with bus current detection under soft-chopping mode. *IET Power Electronics*, **2016**, 9, 482-490	2.2	31
91	A Fast Robust Optimization Methodology Based on Polynomial Chaos and Evolutionary Algorithm for Inverse Problems. *IEEE Transactions on Magnetics*, **2012**, 48, 259-262	2	23
90	A simulated annealing algorithm for multiobjective optimizations of electromagnetic devices. *IEEE Transactions on Magnetics*, **2003**, 39, 1285-1288	2	23
89	A meshless collocation method based on radial basis functions and wavelets. *IEEE Transactions on Magnetics*, **2004**, 40, 1021-1024	2	23
88	An artificial bee colony algorithm for inverse problems. *International Journal of Applied Electromagnetics and Mechanics*, **2009**, 31, 181-192	0.4	22
87	3-D eddy current analysis in the end region of a turbogenerator by using reduced magnetic vector potential. *IEEE Transactions on Magnetics*, **2006**, 42, 1323-1326	2	21
86	A Quantum-Based Particle Swarm Optimization Algorithm Applied to Inverse Problems. *IEEE Transactions on Magnetics*, **2013**, 49, 2069-2072	2	20
85	Multiobjective Synthesis of Antenna Arrays Using a Vector Tabu Search Algorithm. *IEEE Antennas and Wireless Propagation Letters*, **2009**, 8, 947-950	3.8	20
84	Design Optimization and Comparative Study of Novel Magnetic-Geared Permanent Magnet Machines. *IEEE Transactions on Magnetics*, **2017**, 53, 1-4	2	19

83	A Quantum Particle Swarm Optimizer With Enhanced Strategy for Global Optimization of Electromagnetic Devices. *IEEE Transactions on Magnetics*, **2019**, 55, 1-4	2	19
82	A modified ant colony optimization algorithm modeled on tabu-search methods. *IEEE Transactions on Magnetics*, **2006**, 42, 1195-1198	2	19
81	A modified PSO algorithm with dynamic parameters for solving complex engineering design problem. *International Journal of Computer Mathematics*, **2018**, 95, 2308-2329	1.2	17
80	The Cross-Entropy Method and Its Application to Inverse Problems. *IEEE Transactions on Magnetics*, **2010**, 46, 3401-3404	2	16
79	A Quantum Particle Swarm Optimization Method With Fitness Selection Methodology for Electromagnetic Inverse Problems. *IEEE Access*, **2018**, 6, 63155-63163	3.5	15
78	A Modified Tabu Search Method Applied to Inverse Problems. *IEEE Transactions on Magnetics*, **2011**, 47, 1234-1237	2	14
77	Incorporating A Priori Preferences in a Vector PSO Algorithm to Find Arbitrary Fractions of the Pareto Front of Multiobjective Design Problems. *IEEE Transactions on Magnetics*, **2008**, 44, 1038-1041	2	14
76	Independent Current Control of Dual Parallel SRM Drive Using a Public Current Sensor. *IEEE/ASME Transactions on Mechatronics*, **2017**, 22, 392-401	5.5	12
75	Multiobjective Optimization Based on Response Surface Model and Its Application to Engineering Shape Design. *IEEE Transactions on Magnetics*, **2008**, 44, 1006-1009	2	12
74	A Multi-Objective Topology Optimization Methodology Based on Pareto Optimal Min-Cut. *IEEE Transactions on Magnetics*, **2020**, 56, 1-5	2	11
73	An Efficient Tabu Search Algorithm for Robust Solutions of Electromagnetic Design Problems. *IEEE Transactions on Magnetics*, **2008**, 44, 1042-1045	2	11
72	A combined wavelet-element free Galerkin method for numerical calculations of electromagnetic fields. *IEEE Transactions on Magnetics*, **2003**, 39, 1413-1416	2	11
71	A Kriging-Assisted Light Beam Search Method for Multi-Objective Electromagnetic Inverse Problems. *IEEE Transactions on Magnetics*, **2018**, 54, 1-4	2	10
70	An improved particle swarm optimization algorithm for global optimizations of electromagnetic devices. *International Journal of Applied Electromagnetics and Mechanics*, **2007**, 25, 723-728	0.4	10
69	. *IEEE Transactions on Magnetics*, **2017**, 53, 1-4	2	9
68	A modified QPSO algorithm applied to engineering inverse problems in electromagnetics. *International Journal of Applied Electromagnetics and Mechanics*, **2017**, 54, 107-121	0.4	9
67	Multi-objective design optimization of an inverted-S antenna. *International Journal of Applied Electromagnetics and Mechanics*, **2010**, 33, 1049-1055	0.4	8
66	A Quantum-Inspired Evolutionary Algorithm for Multi-Objective Design. *IEEE Transactions on Magnetics*, **2013**, 49, 1609-1612	2	7

65	An Adaptive High-Order Transient Algorithm to Solve Large-Scale Anisotropic Maxwell's Equations. *IEEE Transactions on Antennas and Propagation*, **2021**, 1-1	4.9	7
64	A Coupled Circuit-Ambipolar Diffusion Equation Model and Its Solution Methodology for Insulated Gate Bipolar Transistors. *IEEE Transactions on Magnetics*, **2017**, 53, 1-4	2	6
63	A New Topology Optimization Methodology Based on Constraint Maximum-Weight Connected Graph Theorem. *IEEE Transactions on Magnetics*, **2018**, 54, 1-4	2	6
62	A New Methodology for Robust Optimizations of Optimal Design Problems Under Interval Uncertainty. *IEEE Transactions on Magnetics*, **2016**, 52, 1-4	2	6
61	A Vector Tabu Search Algorithm With Enhanced Searching Ability for Pareto Solutions and Its Application to Multiobjective Optimizations. *IEEE Transactions on Magnetics*, **2016**, 52, 1-4	2	6
60	An Ant Colony Algorithm for Both Robust and Global Optimizations of Inverse Problems. *IEEE Transactions on Magnetics*, **2013**, 49, 2077-2080	2	6
59	Application of Support Vector Machines to Accelerate the Solution Speed of Metaheuristic Algorithms. *IEEE Transactions on Magnetics*, **2009**, 45, 1502-1505	2	6
58	Refinement computations of electromagnetic fields using FE and meshless methods. *IEEE Transactions on Magnetics*, **2005**, 41, 1456-1459	2	6
57	A New Methodology Based on Multi-Label Graph Cut Theorem for Multi-Phase Topology Optimization. *IEEE Transactions on Magnetics*, **2019**, 55, 1-4	2	6
56	Incorporating Light Beam Search in a Vector Normal Boundary Intersection Method for Linear Antenna Array Optimization. *IEEE Transactions on Magnetics*, **2017**, 53, 1-4	2	5
55	An Improved Light Beam Search Method in Multiobjective Inverse Problem Optimizations. *IEEE Transactions on Magnetics*, **2016**, 52, 1-4	2	5
54	A robust optimal methodology using ant colony algorithm for inverse problems. *International Journal of Applied Electromagnetics and Mechanics*, **2014**, 45, 703-708	0.4	5
53	Design and analysis on switched reluctance motor system using field-circuit coupled method **2014**,		5
52	Efficient robust optimization based on polynomial chaos and tabu search algorithm. *International Journal of Applied Electromagnetics and Mechanics*, **2012**, 39, 145-150	0.4	5
51	An improved normal boundary intersection method for multiobjective inverse problems. *International Journal of Applied Electromagnetics and Mechanics*, **2012**, 39, 121-127	0.4	5
50	A Computationally Efficient Vector Optimizer Using Ant Colony Optimizations Algorithm for Multobjective Designs. *IEEE Transactions on Magnetics*, **2008**, 44, 1034-1037	2	5
49	3-D FEM Analysis in Electromagnetic System Considering Vector Hysteresis and Anisotropy. *IEEE Transactions on Magnetics*, **2008**, 44, 890-893	2	5
48	A Real Coded Vector Population-Based Incremental Learning Algorithm for Multi-Objective Optimizations of Electromagnetic Devices. *IEEE Transactions on Magnetics*, **2018**, 54, 1-4	2	4

47	Robust oriented particle swarm optimization algorithm applied to inverse problems. *International Journal of Applied Electromagnetics and Mechanics*, **2010**, 33, 1057-1062	0.4	4
46	A Population-Based Incremental Learning Method for Robust Optimal Solutions. *IEEE Transactions on Magnetics*, **2010**, 46, 3189-3192	2	4
45	A Wind Driven Optimization-Based Methodology for Robust Optimizations of Electromagnetic Devices under Interval Uncertainty. *IEEE Transactions on Magnetics*, **2017**, 53, 1-4	2	3
44	An Improved Evolution Strategy and Its Application to Inverse Scattering in Microwave Imaging. *IEEE Transactions on Magnetics*, **2015**, 51, 1-4	2	3
43	A Network Topological Approach-Based Transient 3-D Electrothermal Model of Insulated-Gate Bipolar Transistor. *IEEE Transactions on Magnetics*, **2020**, 56, 1-4	2	3
42	. *IEEE Transactions on Magnetics*, **2018**, 54, 1-5	2	3
41	A Hybridized Vector Optimal Algorithm for Multi-Objective Optimal Designs of Electromagnetic Devices. *IEEE Transactions on Magnetics*, **2016**, 52, 1-4	2	3
40	Many-Objective Optimization of Antenna Arrays Using an Improved Multiple-Single-Objective Pareto Sampling Algorithm. *IEEE Antennas and Wireless Propagation Letters*, **2012**, 11, 399-402	3.8	3
39	Calculation and control of stray losses in power transformer. *International Journal of Applied Electromagnetics and Mechanics*, **2012**, 39, 835-841	0.4	3
38	A fast global optimizer based on improved CS-RBF and stochastic optimal algorithm. *IEEE Transactions on Magnetics*, **2006**, 42, 1175-1178	2	3
37	Practical Model for Metamaterials in Wireless Power Transfer Systems. *Applied Sciences (Switzerland)*, **2020**, 10, 8506	2.6	3
36	Iron Loss Separation in High Frequency Using Numerical Techniques. *IEEE Transactions on Magnetics* , **2016**, 52, 1-4	2	2
35	Fast Frequency-Domain Modeling of Return Stroke Including Influence of Lossy Ground. *IEEE Transactions on Magnetics*, **2014**, 50, 149-152	2	2
34	A Methodology Based on Mesh Morphing Algorithm and Improved Tabu Algorithm for Non-linear Inverse Scattering. *IEEE Transactions on Magnetics*, **2015**, 51, 1-4	2	2
33	An quantum-inspired evolutionary algorithm applied to design optimizations of electromagnetic devices. *International Journal of Applied Electromagnetics and Mechanics*, **2012**, 39, 89-95	0.4	2
32	A Global Optimization Algorithm Based on C^{1} Piecewise Response Surface Patches. *IEEE Transactions on Magnetics*, **2007**, 43, 1629-1632	2	2
31	Study of Magnet Shifting for Reduction of Cogging Torque in Permanent Magnet Motors		2
30	A tabu based algorithm for multiobjective optimizations of electromagnetic devices. *International Journal of Applied Electromagnetics and Mechanics*, **2002**, 16, 207-214	0.4	2

29	Reconstruction of cracks in a carbon fiber-reinforced polymer laminate plate from signals of eddy current testing. *Journal of Composite Materials*, **2020**, 54, 3527-3536	2.7	2
28	Metamaterial-Core Probes for Nondestructive Eddy Current Testing. *IEEE Transactions on Instrumentation and Measurement*, **2021**, 70, 1-9	5.2	2
27	A Novel 3-D Topology Optimization Methodology Based on the Min-Cut Theorem. *IEEE Transactions on Magnetics*, **2021**, 57, 1-5	2	2
26	. *IEEE Transactions on Magnetics*, **2017**, 53, 1-4	2	1
25	A robust methodology for design optimizations of electromagnetic devices under uncertainties. *International Journal of Applied Electromagnetics and Mechanics*, **2019**, 59, 71-78	0.4	1
24	Stability of Properties on Magnetic Ribbon and Cores With Domestic Fe-Based Amorphous Alloy for HTS AMDT. *IEEE Transactions on Applied Superconductivity*, **2019**, 29, 1-5	1.8	1
23	A Broadband Enhanced Nodal-Order Reduction Methodology for Large-Scale Equation Sets of 3-D Transient Field Problems. *IEEE Transactions on Magnetics*, **2020**, 56, 1-4	2	1
22	A 2-D Nonlinear Ambipolar Diffusion Equation Model of an IGBT and Its Numerical Solution Methodology. *IEEE Transactions on Magnetics*, **2018**, 54, 1-4	2	1
21	Temperature Field Optimization and Magnetic Nanoparticles Optimal Approximation of MFH for Cancer Therapy. *IEEE Transactions on Magnetics*, **2015**, 51, 1-4	2	1
20	Suppressing control of rising bus voltage for switched reluctance motor in braking operation **2014**,		1
19	Full 3D eddy current and temperature field analysis of large hydro-generators in different operating conditions **2014**,		1
18	An improved vector evolutionary algorithm for multiobjective designs of electromagnetic devices. *International Journal of Applied Electromagnetics and Mechanics*, **2007**, 25, 711-715	0.4	1
17	A fast global optimal method based on combinations of MLS and PSO algorithm. *International Journal of Applied Electromagnetics and Mechanics*, **2007**, 25, 759-764	0.4	1
16	A Novel Topology Optimization Methodology Based on Energy Minimization Via □Swap Move. *IEEE Access*, **2020**, 8, 162041-162048	3.5	1
15	A Multimodal Smart Quantum Particle Swarm Optimization for Electromagnetic Design Optimization Problems. *Energies*, **2021**, 14, 4613	3.1	1
14	Detection and Analysis of Fault for HTS AMDT Cores by Magnetostriction-Induced Vibration. *IEEE Transactions on Applied Superconductivity*, **2019**, 29, 1-5	1.8	1
13	A methodology for topology optimization based on level set method and its application to piezoelectric energy harvester design. *International Journal of Applied Electromagnetics and Mechanics*, **2019**, 59, 79-85	0.4	1
12	An Efficient Direct Search Methodology for Robust Optimization of Electromagnetic Devices. *IEEE Transactions on Magnetics*, **2018**, 54, 1-4	2	1

List of Publications

11	An Integral Equation Hybrid Method for the Impedance Calculation of the Grid Power Distribution Network With an Arbitrary Shape. *IEEE Transactions on Magnetics*, **2019**, 55, 1-4	2	0
10	Thin Film Magnetic Core Microinductor With Stacked Windings. *IEEE Transactions on Electron Devices*, **2021**, 68, 4237-4241	2.9	0
9	A Multimodal Improved Particle Swarm Optimization for High Dimensional Problems in Electromagnetic Devices. *Energies*, **2021**, 14, 8575	3.1	0
8	Coupled distribute circuit-3D FEM model to simulate the transient electromagnetic performances of IGBTs. *International Journal of Applied Electromagnetics and Mechanics*, **2019**, 59, 39-46	0.4	
7	A vector wind driven optimization algorithm for multi-objective optimizations of electromagnetic devices. *International Journal of Applied Electromagnetics and Mechanics*, **2019**, 59, 55-62	0.4	
6	A Direct Coupled Solution Methodology for Efficient Robust Optimizations of Inverse Problems Under Uncertainty. *IEEE Transactions on Magnetics*, **2015**, 51, 1-4	2	
5	The cross-entropy method and its application to minimize the ripple of magnetic levitation forces of a maglev system. *International Journal of Applied Electromagnetics and Mechanics*, **2010**, 33, 1063-1068	0.4	
4	A fast global optimal technique based on combinations of improved radial basis functions and tabu search method. *International Journal of Applied Electromagnetics and Mechanics*, **2004**, 19, 515-520	0.4	
3	A Block Arnoldi Algorithm Based Reduced-Order Model Applied to Large-Scale Algebraic Equations of a 3-D Field Problem. *Applied Sciences (Switzerland)*, **2021**, 11, 9435	2.6	
2	Time-Domain Finite-Element Method for Near-Field Applications With Magnetic Metamaterials. *IEEE Transactions on Magnetics*, **2021**, 57, 1-5	2	
1	A Novel Methodology for Robust Topology Optimization Considering Manufacturing Errors and Topology Deviations. *IEEE Transactions on Magnetics*, **2022**, 1-1	2	