Jaewook Lee

List of Publications by Year
in descending order

59	922	516561	501076
papers	citations	16	28
		h-index	g-index

60	60	60	616
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Topology Optimization for the Manufacturable and Structurally Safe Synchronous Reluctance Motors With Multiple Iron Webs and Bridges. IEEE Transactions on Industrial Electronics, 2023, 70, 678-687.	5.2	11
2	Inverse design of three-dimensional fiber reinforced composites with spatially-varying fiber size and orientation using multiscale topology optimization. Composite Structures, 2022, 279, 114768.	3.1	18
3	Design and Fabrication of Magnetic System Using Multi-Material Topology Optimization. IEEE Access, 2021, 9, 8649-8658.	2.6	12
4	Topology Optimization of Functionally Graded Structure for Improving the Magnetic Force of Electromagnets. Transactions of the Korean Society of Mechanical Engineers, A, 2021, 45, 239-245.	0.1	0
5	Design of spatially-varying orthotropic infill structures using multiscale topology optimization and explicit de-homogenization. Additive Manufacturing, 2021, 40, 101920.	1.7	13
6	Comparison and Validation of Numerical Homogenization Based on Asymptotic Method and Representative Volume Element Method in Thermal Composites. Multiscale Science and Engineering, 2021, 3, 165-175.	0.9	5
7	Shape optimization-based design investigation of the switched reluctance motors regarding the target torque and current limitation. Structural and Multidisciplinary Optimization, 2021, 64, 859.	1.7	7
8	Multi-material topology optimization of permanent magnet synchronous motors. International Journal of Applied Electromagnetics and Mechanics, 2021, 67, 461-472.	0.3	6
9	Machine learning-combined topology optimization for functionary graded composite structure design. Computer Methods in Applied Mechanics and Engineering, 2021, 387, 114158.	3.4	25
10	Multi-material topology optimization considering joint stiffness using a two-step filtering approach. Finite Elements in Analysis and Design, 2021, 197, 103635.	1.7	8
11	Shape design optimization of thermoelasticity problems using isogeometric boundary element method. Advances in Engineering Software, 2020, 149, 102871.	1.8	9
12	Topology optimization of functionally graded anisotropic composite structures using homogenization design method. Computer Methods in Applied Mechanics and Engineering, 2020, 369, 113220.	3.4	48
13	Topology optimization for three-dimensional design of segmented permanent magnet arrays. Structural and Multidisciplinary Optimization, 2020, 62, 3089-3104.	1.7	5
14	Multiscale Analysis of Heterostructured Electropermanent Magnet in Magnetic Actuators. Multiscale Science and Engineering, 2020, 2, 20-26.	0.9	1
15	Magnetic Force Enhancement Using Air-Gap Magnetic Field Manipulation by Optimized Coil Currents. Applied Sciences (Switzerland), 2020, 10, 104.	1.3	3
16	Topology optimization of magnetic composite microstructures for electropermanent magnet. Journal of Magnetism and Magnetic Materials, 2020, 503, 166596.	1.0	6
17	Inverse design of structure and fiber orientation by means of topology optimization with tensor field variables. Composites Part B: Engineering, 2019, 176, 107187.	5.9	47
18	Fuel Quantity Estimation of Aircraft Supplementary Tank Using Markov Chain Monte Carlo Method. International Journal of Aeronautical and Space Sciences, 2019, 20, 1047-1054.	1.0	2

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19	Topology optimization of anisotropic magnetic composites in actuators using homogenization design method. Structural and Multidisciplinary Optimization, 2019, 60, 1423-1436.	1.7	15
20	Multiscale Finite Element Analysis of Linear Magnetic Actuators Using Asymptotic Homogenization Method. Multiscale Science and Engineering, 2019, 1, 70-75.	0.9	4
21	Multiphase topology optimization with a single variable using the phase€field design method. International Journal for Numerical Methods in Engineering, 2019, 119, 334-360.	1.5	9
22	Asymptotic homogenization of magnetic composite for controllable permanent magnet. Composites Part B: Engineering, 2019, 161, 128-140.	5.9	8
23	Implementation of SOH Estimator in Automotive BMSs Using Recursive Least-Squares. Electronics (Switzerland), 2019, 8, 1237.	1.8	9
24	Multi-Material Topology Optimization of Magnetic Actuator With Segmented Permanent Magnets. IEEE Transactions on Magnetics, 2018, 54, 1-6.	1.2	18
25	Design methodology of magnetic fields and structures for magneto-mechanical resonator based on topology optimization. Optimization and Engineering, 2018, 19, 19-38.	1.3	2
26	Topology optimization for design of segmented permanent magnet arrays with ferromagnetic materials. Journal of Magnetism and Magnetic Materials, 2018, 449, 571-581.	1.0	18
27	Determination of Nonconductive Coating Thickness Using Electrical Contact Conductance and Surface Profile. Coatings, 2018, 8, 310.	1.2	1
28	Magnetic flux waveform estimation for fast efficiency map calculation in permanent magnet synchronous motors. International Journal of Applied Electromagnetics and Mechanics, 2018, 56, 373-386.	0.3	4
29	Improved capacity estimation technique for the battery management systems of electric vehicles using the fixed-point iteration method. Computers and Chemical Engineering, 2018, 117, 283-290.	2.0	9
30	Topology optimization for continuous and discrete orientation design of functionally graded fiber-reinforced composite structures. Composite Structures, 2018, 201, 217-233.	3.1	75
31	Design Optimization of Fuel Sensor Location in Aircraft Conformal Fuel Tank. Journal of the Korean Society for Aeronautical & Space Sciences, 2018, 46, 332-337.	0.0	0
32	Topology optimization of Halbach magnet arrays using isoparametric projection. Journal of Magnetism and Magnetic Materials, 2017, 432, 140-153.	1.0	24
33	Electrode configuration optimization for maximizing throughput of dielectrophoretic particle separator. Journal of Mechanical Science and Technology, 2017, 31, 5951-5960.	0.7	3
34	Reciprocal Sliding Friction Model for an Electro-Deposited Coating and Its Parameter Estimation Using Markov Chain Monte Carlo Method. Materials, 2016, 9, 237.	1.3	3
35	Electrochemical battery model and its parameter estimator for use in a battery management system of plug-in hybrid electric vehicles. International Journal of Automotive Technology, 2016, 17, 493-508.	0.7	10
36	Numerical simulation and experimental validation for a novel dielectrophoresis activated cell sorter to achieve high throughput and efficiency. Journal of Mechanical Science and Technology, 2016, 30, 3749-3755.	0.7	4

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37	Robust and Efficient Capacity Estimation Using Data-Driven Metamodel Applicable to Battery Management System of Electric Vehicles. Journal of the Electrochemical Society, 2016, 163, A981-A991.	1.3	9
38	Isogeometric Shape Optimization of Ferromagnetic Materials in Magnetic Actuators. IEEE Transactions on Magnetics, 2016, 52, 1-8.	1.2	12
39	Remaining Useful Life Estimation of Li-ion Battery for Energy Storage System Using Markov Chain Monte Carlo Method. Transactions of the Korean Society of Mechanical Engineers, A, 2016, 40, 895-900.	0.1	1
40	Metamodel for Efficient Estimation of Capacity-Fade Uncertainty in Li-Ion Batteries for Electric Vehicles. Energies, 2015, 8, 5538-5554.	1.6	19
41	Design optimization of a methane-fuel rocket combustor with a genetic algorithm. Journal of Mechanical Science and Technology, 2015, 29, 1457-1463.	0.7	2
42	Optimization of Magnet and Back-Iron Topologies in Electromagnetic Vibration Energy Harvesters. IEEE Transactions on Magnetics, 2015, 51, 1-7.	1.2	4
43	General topology optimization method with continuous and discrete orientation design using isoparametric projection. International Journal for Numerical Methods in Engineering, 2015, 101, 571-605.	1.5	100
44	Thermal-composite design optimization for heat flux shielding, focusing, and reversal. Structural and Multidisciplinary Optimization, 2014, 49, 59-68.	1.7	62
45	Multiphysics Simulation. Simulation Foundations, Methods and Applications, 2014, , .	0.8	40
46	Development of a Fatigue Model for Low Alloy Steels Using a Cycle-Dependent Cohesive Zone Law. Advances in Mechanical Engineering, 2014, 6, 124037.	0.8	2
47	Electromechanical System Simulation and Optimization Studies. Simulation Foundations, Methods and Applications, 2014, , 61-187.	0.8	0
48	Optimization Methods for Electromechanical Systems. Simulation Foundations, Methods and Applications, 2014, , 41-59.	0.8	1
49	Extensions to New Topics. Simulation Foundations, Methods and Applications, 2014, , 189-197.	0.8	0
50	Topology Design Optimization of Electromagnetic Vibration Energy Harvester to Maximize Output Power. Journal of Magnetics, 2013, 18, 283-288.	0.2	3
51	Computational methods for the optimisation and design of electromechanical vehicle systems. International Journal of Vehicle Design, 2012, 58, 159.	0.1	12
52	Heat flow control in thermo-magnetic convective systems using engineered magnetic fields. Applied Physics Letters, 2012, 101, 123507.	1.5	13
53	Kilohertz magnetic field focusing and force enhancement using a metallic loop array. Applied Physics Letters, 2012, 101, .	1.5	11
54	Magnetic force enhancement in a linear actuator by air-gap magnetic field distribution optimization and design. Finite Elements in Analysis and Design, 2012, 58, 44-52.	1.7	28

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55	Kilohertz magnetic field focusing in a pair of metallic periodic-ladder structures. Applied Physics Letters, 2011, 99, 093501.	1.5	16
56	Simultaneous Design Optimization of Permanent Magnet, Coils, and Ferromagnetic Material in Actuators. IEEE Transactions on Magnetics, 2011, 47, 4712-4716.	1.2	36
57	Topology optimization of switched reluctance motors for the desired torque profile. Structural and Multidisciplinary Optimization, 2010, 42, 783-796.	1.7	62
58	Structural Topology Optimization of Electrical Machinery to Maximize Stiffness With Body Force Distribution. IEEE Transactions on Magnetics, 2010, 46, 3790-3794.	1.2	44
59	Kilohertz magnetic field focusing in a pair of metallic periodic-ladder structures. , 0, .		1