Jaewook Lee

List of Publications by Year
in descending order

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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	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
2	Topology optimization for continuous and discrete orientation design of functionally graded fiber-reinforced composite structures. Composite Structures, 2018, 201, 217-233.	3.1	75
3	Topology optimization of switched reluctance motors for the desired torque profile. Structural and Multidisciplinary Optimization, 2010, 42, 783-796.	1.7	62
4	Thermal-composite design optimization for heat flux shielding, focusing, and reversal. Structural and Multidisciplinary Optimization, 2014, 49, 59-68.	1.7	62
5	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
6	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
7	Structural Topology Optimization of Electrical Machinery to Maximize Stiffness With Body Force Distribution. IEEE Transactions on Magnetics, 2010, 46, 3790-3794.	1.2	44
8	Multiphysics Simulation. Simulation Foundations, Methods and Applications, 2014, , .	0.8	40
9	Simultaneous Design Optimization of Permanent Magnet, Coils, and Ferromagnetic Material in Actuators. IEEE Transactions on Magnetics, 2011, 47, 4712-4716.	1.2	36
10	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
11	Machine learning-combined topology optimization for functionary graded composite structure design. Computer Methods in Applied Mechanics and Engineering, 2021, 387, 114158.	3.4	25
12	Topology optimization of Halbach magnet arrays using isoparametric projection. Journal of Magnetism and Magnetic Materials, 2017, 432, 140-153.	1.0	24
13	Metamodel for Efficient Estimation of Capacity-Fade Uncertainty in Li-Ion Batteries for Electric Vehicles. Energies, 2015, 8, 5538-5554.	1.6	19
14	Multi-Material Topology Optimization of Magnetic Actuator With Segmented Permanent Magnets. IEEE Transactions on Magnetics, 2018, 54, 1-6.	1.2	18
15	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
16	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
17	Kilohertz magnetic field focusing in a pair of metallic periodic-ladder structures. Applied Physics Letters, 2011, 99, 093501.	1.5	16
18	Topology optimization of anisotropic magnetic composites in actuators using homogenization design method. Structural and Multidisciplinary Optimization, 2019, 60, 1423-1436.	1.7	15

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19	Heat flow control in thermo-magnetic convective systems using engineered magnetic fields. Applied Physics Letters, 2012, 101, 123507.	1.5	13
20	Design of spatially-varying orthotropic infill structures using multiscale topology optimization and explicit de-homogenization. Additive Manufacturing, 2021, 40, 101920.	1.7	13
21	Computational methods for the optimisation and design of electromechanical vehicle systems. International Journal of Vehicle Design, 2012, 58, 159.	0.1	12
22	Isogeometric Shape Optimization of Ferromagnetic Materials in Magnetic Actuators. IEEE Transactions on Magnetics, 2016, 52, 1-8.	1.2	12
23	Design and Fabrication of Magnetic System Using Multi-Material Topology Optimization. IEEE Access, 2021, 9, 8649-8658.	2.6	12
24	Kilohertz magnetic field focusing and force enhancement using a metallic loop array. Applied Physics Letters, 2012, 101, .	1.5	11
25	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
26	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
27	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
28	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
29	Multiphase topology optimization with a single variable using the phaseâ€field design method. International Journal for Numerical Methods in Engineering, 2019, 119, 334-360.	1.5	9
30	Shape design optimization of thermoelasticity problems using isogeometric boundary element method. Advances in Engineering Software, 2020, 149, 102871.	1.8	9
31	Implementation of SOH Estimator in Automotive BMSs Using Recursive Least-Squares. Electronics (Switzerland), 2019, 8, 1237.	1.8	9
32	Asymptotic homogenization of magnetic composite for controllable permanent magnet. Composites Part B: Engineering, 2019, 161, 128-140.	5.9	8
33	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
34	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
35	Topology optimization of magnetic composite microstructures for electropermanent magnet. Journal of Magnetism and Magnetic Materials, 2020, 503, 166596.	1.0	6
36	Multi-material topology optimization of permanent magnet synchronous motors. International Journal of Applied Electromagnetics and Mechanics, 2021, 67, 461-472.	0.3	6

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37	Topology optimization for three-dimensional design of segmented permanent magnet arrays. Structural and Multidisciplinary Optimization, 2020, 62, 3089-3104.	1.7	5
38	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
39	Optimization of Magnet and Back-Iron Topologies in Electromagnetic Vibration Energy Harvesters. IEEE Transactions on Magnetics, 2015, 51, 1-7.	1.2	4
40	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
41	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
42	Multiscale Finite Element Analysis of Linear Magnetic Actuators Using Asymptotic Homogenization Method. Multiscale Science and Engineering, 2019, 1, 70-75.	0.9	4
43	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
44	Electrode configuration optimization for maximizing throughput of dielectrophoretic particle separator. Journal of Mechanical Science and Technology, 2017, 31, 5951-5960.	0.7	3
45	Magnetic Force Enhancement Using Air-Gap Magnetic Field Manipulation by Optimized Coil Currents. Applied Sciences (Switzerland), 2020, 10, 104.	1.3	3
46	Topology Design Optimization of Electromagnetic Vibration Energy Harvester to Maximize Output Power. Journal of Magnetics, 2013, 18, 283-288.	0.2	3
47	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
48	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
49	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
50	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
51	Determination of Nonconductive Coating Thickness Using Electrical Contact Conductance and Surface Profile. Coatings, 2018, 8, 310.	1.2	1
52	Multiscale Analysis of Heterostructured Electropermanent Magnet in Magnetic Actuators. Multiscale Science and Engineering, 2020, 2, 20-26.	0.9	1
53	Kilohertz magnetic field focusing in a pair of metallic periodic-ladder structures. , 0, .		1
54	Optimization Methods for Electromechanical Systems. Simulation Foundations, Methods and Applications, 2014, , 41-59.	0.8	1

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55	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
56	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
57	Electromechanical System Simulation and Optimization Studies. Simulation Foundations, Methods and Applications, 2014, , 61-187.	0.8	0
58	Extensions to New Topics. Simulation Foundations, Methods and Applications, 2014, , 189-197.	0.8	0
59	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