

# Chang-wan Kim

## List of Publications by Year in descending order

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88  
papers

1,223  
citations

361296

20  
h-index

454834

30  
g-index

89  
all docs

89  
docs citations

89  
times ranked

1104  
citing authors

#	ARTICLE	IF	CITATIONS
1	Nanomechanical mass detection using nonlinear oscillations. Applied Physics Letters, 2009, 95, 203104.	1.5	64
2	An efficient and robust contact algorithm for a compliant contact force model between bodies of complex geometry. Multibody System Dynamics, 2010, 23, 99-120.	1.7	57
3	A Novel Method to Guarantee the Specified Thickness and Surface Roughness of the Roll-to-Roll Printed Patterns Using the Tension of a Moving Substrate. Journal of Microelectromechanical Systems, 2010, 19, 1243-1253.	1.7	56
4	A study on the effect of different modeling parameters on the dynamic response of a jacket-type offshore wind turbine in the Korean Southwest Sea. Renewable Energy, 2013, 58, 50-59.	4.3	53
5	Nonlinear vibration behavior of graphene resonators and their applications in sensitive mass detection. Nanoscale Research Letters, 2012, 7, 499.	3.1	49
6	Load analysis and comparison of different jacket foundations. Renewable Energy, 2013, 54, 201-210.	4.3	48
7	Dynamic modeling and analysis of a wind turbine drivetrain using the torsional dynamic model. International Journal of Precision Engineering and Manufacturing, 2013, 14, 153-159.	1.1	43
8	Study on the marine growth effect on the dynamic response of offshore wind turbines. International Journal of Precision Engineering and Manufacturing, 2012, 13, 1167-1176.	1.1	41
9	Three-Dimensional Solid Brick Element Using Slopes in the Absolute Nodal Coordinate Formulation. Journal of Computational and Nonlinear Dynamics, 2014, 9, .	0.7	41
10	Dynamic modeling and numerical analysis of a cold rolling mill. International Journal of Precision Engineering and Manufacturing, 2013, 14, 407-413.	1.1	33
11	Feasibility study of offshore wind turbine substructures for southwest offshore wind farm project in Korea. Renewable Energy, 2015, 74, 406-413.	4.3	32
12	Nanomechanical In Situ Monitoring of Proteolysis of Peptide by Cathepsin B. PLoS ONE, 2009, 4, e6248.	1.1	26
13	Finite size effect on nanomechanical mass detection: the role of surface elasticity. Nanotechnology, 2011, 22, 265502.	1.3	26
14	A Study on Vibration Characteristics of Brushless DC Motor by Electromagnetic-Structural Coupled Analysis Using Entire Finite Element Model. IEEE Transactions on Energy Conversion, 2018, 33, 1712-1718.	3.7	26
15	Optimization of a Lithium-Ion Battery for Maximization of Energy Density with Design of Experiments and Micro-genetic Algorithm. International Journal of Precision Engineering and Manufacturing - Green Technology, 2020, 7, 829-836.	2.7	25
16	Analysis of the equilibrated residual method for a posteriori error estimation on meshes with hanging nodes. Computer Methods in Applied Mechanics and Engineering, 2007, 196, 3493-3507.	3.4	24
17	Experimental and Numerical Investigation of the Vibration Characteristics in a Cold Rolling Mill Using Multibody Dynamics. ISIJ International, 2012, 52, 2042-2047.	0.6	23
18	Optimization for maximum specific energy density of a lithium-ion battery using progressive quadratic response surface method and design of experiments. Scientific Reports, 2020, 10, 15586.	1.6	23

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19	Numerical analysis of accelerated degradation in large lithium-ion batteries. <i>Computers and Chemical Engineering</i> , 2018, 112, 82-91.	2.0	21
20	Three- and four-noded planar elements using absolute nodal coordinate formulation. <i>Multibody System Dynamics</i> , 2013, 29, 255-269.	1.7	20
21	Elastomeric microfluidic valve with low, constant opening threshold pressure. <i>RSC Advances</i> , 2015, 5, 23239-23245.	1.7	20
22	The simplest 3-, 6- and 8-noded fully-parameterized ANCF plate elements using only transverse slopes. <i>Multibody System Dynamics</i> , 2015, 34, 23-51.	1.7	20
23	Thermal behaviors analysis of 55 Ah large-format lithium-ion pouch cells with different cell aspect ratios, tab locations, and C-rates. <i>Applied Thermal Engineering</i> , 2020, 175, 115422.	3.0	20
24	A triangular plate element 2343 using second-order absolute-nodal-coordinate slopes: numerical computation of shape functions. <i>Nonlinear Dynamics</i> , 2013, 74, 769-781.	2.7	19
25	Dynamic analysis of three-dimensional drivetrain system of wind turbine. <i>International Journal of Precision Engineering and Manufacturing</i> , 2014, 15, 1351-1357.	1.1	17
26	Development of a Mathematical Model for the Prediction of Vibration in a Cold Rolling Mill Including the Driving System. <i>ISIJ International</i> , 2012, 52, 1135-1144.	0.6	16
27	Two-way nonlinear mechanical-electrochemical-thermal coupled analysis method to predict thermal runaway of lithium-ion battery cells caused by quasi-static indentation. <i>Journal of Power Sources</i> , 2020, 475, 228678.	4.0	16
28	MILP-Based Dynamic Efficiency Scheduling Model of Battery Energy Storage Systems. <i>Journal of Electrical Engineering and Technology</i> , 2016, 11, 1063-1069.	1.2	16
29	Thermal effects on mass detection sensitivity of carbon nanotube resonators in nonlinear oscillation regime. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2015, 74, 39-44.	1.3	14
30	Thermal effects on nonlinear vibration of a carbon nanotube-based mass sensor using finite element analysis. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2017, 85, 125-136.	1.3	14
31	Characterization and gas sensing properties of bead-like ZnO using multi-walled carbon nanotube templates. <i>Ceramics International</i> , 2015, 41, 7729-7734.	2.3	13
32	Finite element analysis of railway disc brake considering structural, thermal, and wear phenomena. <i>Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science</i> , 2012, 226, 1845-1860.	1.1	12
33	Defect-related photoluminescence properties of as-synthesized and annealed NiO nanostructures via hydrothermal method. <i>Thin Solid Films</i> , 2016, 598, 33-38.	0.8	12
34	Kriging Model Based Optimization of MacPherson Strut Suspension for Minimizing Side Load using Flexible Multi-Body Dynamics. <i>International Journal of Precision Engineering and Manufacturing</i> , 2018, 19, 873-879.	1.1	12
35	Fast frequency response analysis of partially damped structures with non-proportional viscous damping. <i>Journal of Sound and Vibration</i> , 2006, 297, 1075-1081.	2.1	11
36	Geometrically nonlinear dynamic behavior on detection sensitivity of carbon nanotube-based mass sensor using finite element method. <i>Finite Elements in Analysis and Design</i> , 2017, 126, 39-49.	1.7	11

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37	An improved dynamic model of friction draft gear with a transitional characteristic accounting for housing deformation. <i>Vehicle System Dynamics</i> , 2018, 56, 1471-1491.	2.2	11
38	Fast frequency response analysis of large-scale structures with non-proportional damping. <i>International Journal for Numerical Methods in Engineering</i> , 2007, 69, 978-992.	1.5	10
39	Roll to roll air-floating oven drying process design and analysis for printed electronics. <i>International Journal of Precision Engineering and Manufacturing</i> , 2014, 15, 1303-1310.	1.1	10
40	Effects of mechanical deformation on energy conversion efficiency of piezoelectric nanogenerators. <i>Nanotechnology</i> , 2015, 26, 275402.	1.3	10
41	Absolute nodal coordinate formulation of tetrahedral solid element. <i>Nonlinear Dynamics</i> , 2017, 88, 2457-2471.	2.7	10
42	Reliability-based robust design optimization for torque ripple reduction considering manufacturing uncertainty of interior permanent magnet synchronous motor. <i>Journal of Mechanical Science and Technology</i> , 2020, 34, 1249-1256.	0.7	9
43	Design optimization of tab attachment positions and cell aspect ratio to minimize temperature difference in 45-Ah LFP large-format lithium-ion pouch cells. <i>Applied Thermal Engineering</i> , 2021, 182, 116143.	3.0	9
44	Analysis of Membrane Behavior of a Normally Closed Microvalve Using a Fluid-Structure Interaction Model. <i>Micromachines</i> , 2017, 8, 355.	1.4	8
45	Reliability-Based Robust Design Optimization of Lithium-Ion Battery Cells for Maximizing the Energy Density by Increasing Reliability and Robustness. <i>Energies</i> , 2021, 14, 6236.	1.6	8
46	Detailed Layered Nonlinear Finite Element Analysis for Lithium-Ion Battery Cells to Predict Internal Short Circuits Due to Separator Fractures under Hemisphere Indentation. <i>Journal of the Electrochemical Society</i> , 2020, 167, 120511.	1.3	8
47	Automotive structure vibration with component mode synthesis on a multi-level. <i>International Journal of Automotive Technology</i> , 2008, 9, 119-122.	0.7	7
48	Analysis on mass sensing characteristics of SWCNT-based nano-mechanical resonators using continuum mechanics based finite element analysis. <i>Journal of Mechanical Science and Technology</i> , 2015, 29, 4801-4806.	0.7	7
49	Optimization of Lithium-Ion Battery Pouch Cell for Maximization of Energy Density while Preventing Internal Short Circuit Caused by Separator Failure under Crush Load. <i>Journal of the Electrochemical Society</i> , 2021, 168, 030536.	1.3	7
50	Feedback Linearization Control of a Cardiovascular Circulatory Simulator. <i>IEEE Transactions on Control Systems Technology</i> , 2015, 23, 1970-1977.	3.2	6
51	Wear simulation for the centre plate arrangement of a freight car. <i>Vehicle System Dynamics</i> , 2015, 53, 856-876.	2.2	6
52	Dynamical response of multi-walled carbon nanotube resonators based on continuum mechanics modeling for mass sensing applications. <i>Journal of Mechanical Science and Technology</i> , 2017, 31, 2385-2391.	0.7	6
53	Data-driven health condition and RUL prognosis for liquid filtration systems. <i>Journal of Mechanical Science and Technology</i> , 2021, 35, 1597-1607.	0.7	6
54	Efficient Modal Frequency Response Analysis of Large Structures with Structural Damping. <i>AIAA Journal</i> , 2006, 44, 2130-2133.	1.5	5

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55	On a component mode synthesis on multi-level and its application to dynamics analysis of vehicle system supported with spring-stiffness damper system. <i>Journal of Mechanical Science and Technology</i> , 2011, 25, 3115-3121.	0.7	5
56	GPU-based parallel computation for structural dynamic response analysis with CUDA. <i>Journal of Mechanical Science and Technology</i> , 2014, 28, 4155-4162.	0.7	5
57	Effects of post-annealing treatment on the microstructural evolution and quality of Cu(OH) <sub>2</sub> nanowires. <i>Journal of Alloys and Compounds</i> , 2015, 652, 153-157.	2.8	5
58	Shape-selective synthesis and photoluminescence of SnO <sub>2</sub> nanostructures under different catalyst conditions. <i>Applied Physics A: Materials Science and Processing</i> , 2015, 121, 715-721.	1.1	5
59	Finite-size effect on the dynamic and sensing performances of graphene resonators: the role of edge stress. <i>Beilstein Journal of Nanotechnology</i> , 2016, 7, 685-696.	1.5	5
60	Data-driven fault diagnosis based on coal-fired power plant operating data. <i>Journal of Mechanical Science and Technology</i> , 2020, 34, 3931-3936.	0.7	5
61	Topology Optimization to Reduce Electromagnetic Force Induced Vibration for the Specific Frequency of PMSM Motor Using Electromagnetic-Structural Coupled Analysis. <i>Energies</i> , 2021, 14, 431.	1.6	5
62	The Effect of Tab Attachment Positions and Cell Aspect Ratio on Temperature Difference in Large-Format LIBs Using Design of Experiments. <i>Energies</i> , 2021, 14, 116.	1.6	5
63	Theory of Thin-Walled, Pretwisted Composite Beams with Elastic Couplings. <i>Advanced Composite Materials</i> , 2009, 18, 105-119.	1.0	4
64	Sliding mode control for the Frank's Starling response of a piston pump mock ventricle. <i>Journal of Process Control</i> , 2015, 25, 70-77.	1.7	4
65	Sequential Approximate Optimization of MacPherson Strut Suspension for Minimizing Side Load by Using Progressive Meta-Model Method. <i>International Journal of Automotive Technology</i> , 2018, 19, 455-461.	0.7	4
66	Analysis on Dynamics Characteristics of Maglev with Loop Type Linear Synchronous Motor Section Change Algorithm using Electro-Mechanical Co-Simulation. <i>International Journal of Precision Engineering and Manufacturing - Green Technology</i> , 2018, 5, 401-408.	2.7	4
67	Optimal design to reduce torque ripple of IPM motor with radial based function meta-model considering design sensitivity analysis. <i>Journal of Mechanical Science and Technology</i> , 2019, 33, 3955-3961.	0.7	4
68	Load analysis and structural strength evaluation of semi-submersible platform for wind turbines in Jeju Island sea states using hydrodynamic-structure interaction analysis. <i>Journal of Mechanical Science and Technology</i> , 2020, 34, 1227-1235.	0.7	4
69	Prediction of Internal Circuit and Mechanical-Electrical-Thermal Response of Lithium-Ion Battery Cell with Mechanical-Thermal Coupled Analysis. <i>Energies</i> , 2022, 15, 929.	1.6	4
70	Use of distributed-memory parallel processing in computing the dynamic response of the passenger car system. <i>Proceedings of the Institution of Mechanical Engineers, Part D: Journal of Automobile Engineering</i> , 2006, 220, 1373-1381.	1.1	3
71	Damped dynamic response determination in the frequency domain for partially damped large scale structures. <i>Journal of Sound and Vibration</i> , 2009, 326, 703-708.	2.1	3
72	Facile fabrication of morphology-tunable SnO nanostructures by catalyst-free growth. <i>Materials Letters</i> , 2015, 158, 5-8.	1.3	3

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73	Analysis of in-wheel motorized wheelchair cornering performance with electro-mechanical co-simulation. <i>International Journal of Precision Engineering and Manufacturing</i> , 2015, 16, 501-507.	1.1	3
74	Influence of the Chemical Molar Ratio on the Copper Nanoparticles: Controlled Surfactants, Reducing Agents, and Precursors. <i>Bulletin of the Korean Chemical Society</i> , 2016, 37, 700-704.	1.0	3
75	Efficient three-stage approach to fatigue life assessment for transport machines in the context of stilt sprayer performance. <i>Engineering Failure Analysis</i> , 2017, 81, 10-30.	1.8	3
76	Freight cars shunting impacts analysis using an improved dynamic model of friction draft gear. <i>Vehicle System Dynamics</i> , 2018, 56, 1492-1507.	2.2	3
77	Metamodel-Based Optimization of a Lithium-Ion Battery Cell for Maximization of Energy Density with Evolutionary Algorithm. <i>Journal of the Electrochemical Society</i> , 2019, 166, A211-A216.	1.3	3
78	A preconditioned iterative method for modal frequency-response analysis of structures with non-proportional damping. <i>Journal of Sound and Vibration</i> , 2006, 297, 1097-1103.	2.1	2
79	Frequency response computation of structures including non-proportional damping in a shared memory environment. <i>Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science</i> , 2013, 227, 288-298.	1.1	2
80	Two-DOF Anthropomorphic Test Devices Reproducing Human Rider Motion Intent for the Evaluation of Dynamic Stability and Safety of Unicycle Robots. <i>International Journal of Control, Automation and Systems</i> , 2019, 17, 1569-1578.	1.6	2
81	Optimization of laminated composite structures under nonlinear dynamic loading using the equivalent static load method. <i>Journal of Mechanical Science and Technology</i> , 2021, 35, 4105-4113.	0.7	2
82	A statistical analysis of thermal characteristics of 55-Ah large-format LIB pouch cell with different tab-type, tab size, and tab position. <i>Case Studies in Thermal Engineering</i> , 2022, 30, 101777.	2.8	2
83	Comparison of photoluminescence of carbon nanotube/ZnO nanostructures synthesized by gas- and solution-phase transport. <i>Applied Physics A: Materials Science and Processing</i> , 2015, 118, 733-738.	1.1	1
84	Design of end coil angular position and centerline shape of C-type side load coil spring for reducing side load of MacPherson strut suspension. <i>Journal of Mechanical Science and Technology</i> , 2021, 35, 1153-1160.	0.7	1
85	Reliability-Based Design Optimization for Reducing the Performance Failure and Maximizing the Specific Energy of Lithium-Ion Batteries Considering Manufacturing Uncertainty of Porous Electrodes. <i>Energies</i> , 2021, 14, 6100.	1.6	1
86	Efficient enforced motion analysis of full-scale vehicle structures with global and local structural damping. <i>Journal of Sound and Vibration</i> , 2007, 306, 940-945.	2.1	0
87	Deterministic Fatigue Damage Evaluation of Semi-submersible Platform for Wind Turbines Using Hydrodynamic-Structure Interaction Analysis. <i>International Journal of Precision Engineering and Manufacturing - Green Technology</i> , 0, , 1.	2.7	0
88	Investigation of Unbalanced Mass of a Work Roll in a Cold Rolling Mill. <i>Transactions of the Korean Society of Mechanical Engineers, A</i> , 2012, 36, 429-435.	0.1	0