Jong Won Kim

List of Publications by Year
in descending order

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Version: 2024-02-01

49 papers	1,050 citations	430874 18 h-index	454955 30 g-index
49 all docs	49 docs citations	49 times ranked	645 citing authors

#	Article	IF	Citations
1	Development of a wall-climbing robot using a tracked wheel mechanism. Journal of Mechanical Science and Technology, 2008, 22, 1490-1498.	1.5	106
2	Hybrid rapid prototyping system using machining and deposition. CAD Computer Aided Design, 2002, 34, 741-754.	2.7	102
3	Optimal design and kinetic analysis of a stair-climbing mobile robot with rocker-bogie mechanism. Mechanism and Machine Theory, 2012, 50, 90-108.	4.5	86
4	MultiTrack: A multi-linked track robot with suction adhesion for climbing and transition. Robotics and Autonomous Systems, 2015, 72, 207-216.	5.1	73
5	Design and stability analysis of a novel wall-climbing robotic platform (ROPE RIDE). Mechanism and Machine Theory, 2013, 70, 189-208.	4.5	66
6	STEP: A New Mobile Platform With 2-DOF Transformable Wheels for Service Robots. IEEE/ASME Transactions on Mechatronics, 2020, 25, 1859-1868.	5.8	40
7	Development of a wall-climbing platform with modularized wall-cleaning units. Automation in Construction, 2017, 83, 1-18.	9.8	38
8	Optimal design and workspace analysis of a mobile welding robot with a 3P3R serial manipulator. Robotics and Autonomous Systems, 2011, 59, 813-826.	5.1	36
9	A New Mobile Platform (RHyMo) for Smooth Movement on Rugged Terrain. IEEE/ASME Transactions on Mechatronics, 2016, 21, 1303-1314.	5.8	32
10	Unmanned High-Rise FaÃ§ade Cleaning Robot Implemented on a Gondola: Field Test on 000-Building in Korea. IEEE Access, 2019, 7, 30174-30184.	4.2	29
11	Gain-scheduled robust control of a novel 3-DOF micro parallel positioning platform via a dual stage servo system. Mechatronics, 2008, 18, 495-505.	3.3	25
12	Numerical hybrid Taguchi-random coordinate search algorithm for path synthesis. Mechanism and Machine Theory, 2016, 102, 203-216.	4.5	23
13	Design and analysis of decoupled parallel mechanism with redundant actuator. International Journal of Precision Engineering and Manufacturing, 2009, 10, 93-99.	2.2	22
14	Improvement of step-climbing capability of a new mobile robot RHyMo via kineto-static analysis. Mechanism and Machine Theory, 2017, 114, 20-37.	4.5	22
15	Design and Force-Tracking Impedance Control of 2-DOF Wall-Cleaning Manipulator via Disturbance Observer. IEEE/ASME Transactions on Mechatronics, 2020, 25, 1487-1498.	5.8	22
16	Dynamic analysis during internal transition of a compliant multi-body climbing robot with magnetic adhesion. Journal of Mechanical Science and Technology, 2014, 28, 5175-5187.	1.5	21
17	Curved-Spoke Tri-Wheel Mechanism for Fast Stair-Climbing. IEEE Access, 2019, 7, 173766-173773.	4.2	21
18	Rocker-Pillar : Design of the rough terrain mobile robot platform with caterpillar tracks and rocker bogie mechanism. , 2012, , .		20

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19	Optimal design of the front linkage of a hydraulic excavator for multi-objective function. Journal of Mechanical Science and Technology, 2014, 28, 3103-3111.	1.5	20
20	Optimization-Based Nonimpact Rolling Locomotion of a Variable Geometry Truss. IEEE Robotics and Automation Letters, 2019, 4, 747-752.	5.1	17
21	Dual Ascender Robot With Position Estimation Using Angle and Length Sensors. IEEE Sensors Journal, 2020, 20, 7422-7432.	4.7	16
22	Optimal Parameter Design of a Cleaning Device for Vertical Glass Surfaces. International Journal of Precision Engineering and Manufacturing, 2019, 20, 233-241.	2.2	14
23	Parallel 2-DoF manipulator for wall-cleaning applications. Automation in Construction, 2019, 101, 209-217.	9.8	14
24	Design, modeling and optimization of an underwater manipulator with four-bar mechanism and compliant linkage. Journal of Mechanical Science and Technology, 2016, 30, 4337-4343.	1.5	12
25	Compact Variable Gravity Compensation Mechanism With a Geometrically Optimized Lever for Maximizing Variable Ratio of Torque Generation. IEEE/ASME Transactions on Mechatronics, 2020, 25, 2019-2026.	5.8	12
26	Design of Window-Cleaning Robotic Manipulator With Compliant Adaptation Capability. IEEE/ASME Transactions on Mechatronics, 2020, 25, 1878-1885.	5.8	12
27	Analysis method of climbing stairs with the rocker-bogie mechanism. Journal of Mechanical Science and Technology, 2013, 27, 2783-2788.	1.5	11
28	Optimal design of a micro evaporator with lateral gaps. Applied Thermal Engineering, 2009, 29, 2921-2926.	6.0	10
29	Development and kinematic calibration for measurement structure of a micro parallel mechanism platform. Journal of Mechanical Science and Technology, 2008, 22, 746-754.	1.5	9
30	Positioning control of an underwater robot with tilting thrusters via decomposition of thrust vector. International Journal of Control, Automation and Systems, 2017, 15, 2283-2291.	2.7	9
31	Optimal Trajectory Planning for 2-DOF Adaptive Transformable Wheel. IEEE Access, 2020, 8, 14452-14459.	4.2	9
32	Characteristics of R-123 two-phase flow through micro-scale short tube orifice for design of a small cooling system. Experimental Thermal and Fluid Science, 2011, 35, 1484-1489.	2.7	8
33	A new non-servo motor type automatic tool changing mechanism based on rotational transmission with dual four-bar linkages. Meccanica, 2018, 53, 2447-2459.	2.0	8
34	Design and fabrication of a micro PZT cantilever array actuator for applications in fluidic systems. Journal of Mechanical Science and Technology, 2005, 19, 1544-1553.	1.5	7
35	Empirical modeling of rotating thruster for underwater robotic platform. Journal of Marine Science and Technology, 2015, 20, 118-126.	2.9	7
36	Trajectory generation algorithm for smooth movement of a hybrid-type robot Rocker-Pillar. Journal of Mechanical Science and Technology, 2016, 30, 5217-5224.	1.5	7

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37	Disturbance compensation of a dual-arm underwater robot via redundant parallel mechanism theory. Meccanica, 2017, 52, 1711-1719.	2.0	7
38	Performance Comparison of Adaptive Mechanisms of Cleaning Module to Overcome Step-Shaped Obstacles on FaÃ§ades. IEEE Access, 2019, 7, 159879-159887.	4.2	7
39	Design of Compact Variable Gravity Compensator (CVGC) Based on Cam and Variable Pivot of a Lever Mechanism. , 2019, , .		7
40	Highly Repeatable Rope Winch Design With Multiple Windings and Differential Gear Mechanism. IEEE Access, 2020, 8, 87291-87308.	4.2	7
41	Reconfiguration Solution of a Variable Topology Truss: Design and Experiment. IEEE Robotics and Automation Letters, 2020, 5, 1939-1945.	5.1	7
42	Polygon-Based Random Tree Search Planning for Variable Geometry Truss Robot. IEEE Robotics and Automation Letters, 2020, 5, 813-819.	5.1	7
43	Multidisciplinary methodology to predict the performance of modular actuator-based manipulator. Robotics and Computer-Integrated Manufacturing, 2018, 52, 46-64.	9.9	5
44	Development of Efficient Strategy for Square Peg-in-Hole Assembly Task. International Journal of Precision Engineering and Manufacturing, 2018, 19, 1323-1330.	2.2	5
45	Optimal design of a micro-orifice for constant evaporator superheat in a small cooler. Applied Thermal Engineering, 2011, 31, 2631-2635.	6.0	3
46	A New Lizard-Inspired Robot With S-Shaped Lateral Body Motions. IEEE/ASME Transactions on Mechatronics, 2020, 25, 130-141.	5.8	3
47	Chatter analysis of a parallel mechanism-based universal machining center. Journal of Mechanical Science and Technology, 2003, 17, 691-697.	0.4	2
48	A dynamic model of humanoid robots using the analytical method. International Journal of Precision Engineering and Manufacturing, 2010, 11, 67-75.	2.2	2
49	Position Error Compensation of FaÃ§ade-Cleaning Robot by Optimal Rope Winch Design. IEEE Access, 2021, 9, 143392-143405.	4.2	2