

# Kyung-Soo Kim

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

111  
papers

1,426  
citations

20  
h-index

33  
g-index

137  
ext. papers

1,821  
ext. citations

3.4  
avg, IF

4.96  
L-index

#	Paper	IF	Citations
111	The MSC Prosthetic Hand: Rapid, Powerful, and Intuitive. <i>IEEE Robotics and Automation Letters</i> , <b>2022</b> , 7, 3170-3177	4.2	0
110	Highly Damage-Resistant Thin Film Saturable Absorber Based on Mechanically Functionalized SWCNTs.. <i>Nanoscale Research Letters</i> , <b>2022</b> , 17, 11	5	
109	Development of quadruped robot for inspection of underground pipelines in nuclear power plants. <i>Electronics Letters</i> , <b>2022</b> , 58, 234-236	1.1	
108	Applications: Twisted String Actuation-based Compact Automatic Transmission <b>2021</b> ,		2
107	A Robust State of Charge Estimation Approach Based on Nonlinear Battery Cell Model for Lithium-Ion Batteries in Electric Vehicles. <i>IEEE Transactions on Vehicular Technology</i> , <b>2021</b> , 70, 5638-5647	6.8	6
106	Generalized Control Framework for Exoskeleton Robots by Interaction Force Feedback Control. <i>International Journal of Control, Automation and Systems</i> , <b>2021</b> , 19, 3419	2.9	
105	Real-Time Optimal Torque Control of Interior Permanent Magnet Synchronous Motors Based on a Numerical Optimization Technique. <i>IEEE Transactions on Control Systems Technology</i> , <b>2021</b> , 29, 1815-1822	4.8	4
104	Modulated Motion Blur-Based Vehicle Body Velocity and Pose Estimation Using an Optical Image Modulator. <i>IEEE Transactions on Vehicular Technology</i> , <b>2021</b> , 70, 8744-8754	6.8	
103	Bipedal Walking and Impact Reduction Algorithm for a Robot with Pneumatically Driven Knees. <i>International Journal of Control, Automation and Systems</i> , <b>2021</b> , 19, 3937-3946	2.9	0
102	Practical Approach for Controlling Optical Image Stabilization System. <i>International Journal of Control, Automation and Systems</i> , <b>2020</b> , 18, 824-833	2.9	4
101	Estimating Simultaneous and Proportional Finger Force Intention Based on sEMG Using a Constrained Autoencoder. <i>IEEE Access</i> , <b>2020</b> , 8, 138264-138276	3.5	4
100	A disturbance observer based approach to current control of PMSM drives for torque ripple reduction. <i>IFAC-PapersOnLine</i> , <b>2019</b> , 52, 206-209	0.7	
99	A Nonlinear-Model-Based Observer for a State-of-Charge Estimation of a Lithium-Ion Battery in Electric Vehicles. <i>Energies</i> , <b>2019</b> , 12, 3383	3.1	7
98	A Novel Passive Quasi-Zero Stiffness Isolator for Ultra-Precision Measurement Systems. <i>International Journal of Precision Engineering and Manufacturing</i> , <b>2019</b> , 20, 1573-1580	1.7	9
97	Using the Stator Current Ripple Model for Real-Time Estimation of Full Parameters of a Permanent Magnet Synchronous Motor. <i>IEEE Access</i> , <b>2019</b> , 7, 33369-33379	3.5	11
96	A 2-Speed Small Transmission Mechanism Based on Twisted String Actuation and a Dog Clutch. <i>IEEE Robotics and Automation Letters</i> , <b>2018</b> , 3, 1338-1345	4.2	19
95	Effective image enhancement techniques for fog-affected indoor and outdoor images. <i>IET Image Processing</i> , <b>2018</b> , 12, 465-471	1.7	19

94	Controller Design of an Electric Power Steering System. <i>IEEE Transactions on Control Systems Technology</i> , <b>2018</b> , 26, 748-755	4.8	24
93	A Robust Current Controller for Uncertain Permanent Magnet Synchronous Motors with a Performance Recovery Property for Electric Power Steering Applications. <i>Energies</i> , <b>2018</b> , 11, 1224	3.1	7
92	Design of Robot Hand With Pneumatic Dual-Mode Actuation Mechanism Powered by Chemical Gas Generation Method. <i>IEEE Robotics and Automation Letters</i> , <b>2018</b> , 3, 4193-4200	4.2	3
91	Design of a miniature force sensor based on photointerrupter for robotic hand. <i>Sensors and Actuators A: Physical</i> , <b>2018</b> , 269, 444-453	3.9	13
90	An Impulse-time Perturbation Approach for a Symmetric Extra-insensitive Input Shaper. <i>International Journal of Control, Automation and Systems</i> , <b>2018</b> , 16, 1239-1246	2.9	5
89	Designing Anthropomorphic Robot Hand With Active Dual-Mode Twisted String Actuation Mechanism and Tiny Tension Sensors. <i>IEEE Robotics and Automation Letters</i> , <b>2017</b> , 2, 1571-1578	4.2	43
88	. <i>IEEE/ASME Transactions on Mechatronics</i> , <b>2017</b> , 22, 1992-2002	5.5	7
87	. <i>IEEE/ASME Transactions on Mechatronics</i> , <b>2017</b> , 22, 1983-1991	5.5	6
86	Design and Analysis of the Active Dual-Mode Twisting Actuation Mechanism. <i>IEEE/ASME Transactions on Mechatronics</i> , <b>2017</b> , 22, 2790-2801	5.5	11
85	Investigation of fiber Bragg grating as a spectral notch shaper for single-pulse coherent anti-Stokes Raman spectroscopy. <i>Optics Communications</i> , <b>2017</b> , 383, 107-112	2	3
84	Note: Hybrid active/passive force feedback actuator using hydrostatic transmission. <i>Review of Scientific Instruments</i> , <b>2017</b> , 88, 126103	1.7	
83	Development of a vehicle body velocity sensor using Modulated Motion Blur <b>2017</b> ,		1
82	. <i>IEEE Transactions on Human-Machine Systems</i> , <b>2017</b> , 47, 1089-1099	4.1	11
81	Design of modular gripper for explosive ordinance disposal robot manipulator based on modified dual-mode twisting actuation. <i>International Journal of Control, Automation and Systems</i> , <b>2016</b> , 14, 1322-1330	2.9	3
80	Design and control of antagonistic robot joint with Twisted String Actuators <b>2016</b> ,		5
79	Optimization and reliability evaluation of COG bonding process. <i>Journal of Mechanical Science and Technology</i> , <b>2016</b> , 30, 1305-1313	1.6	2
78	Bioinspired Image Stabilization Control Using the Adaptive Gain Adjustment Scheme of Vestibulo-Ocular Reflex. <i>IEEE/ASME Transactions on Mechatronics</i> , <b>2016</b> , 21, 922-930	5.5	4
77	Estimating Clothing Thermal Insulation Using an Infrared Camera. <i>Sensors</i> , <b>2016</b> , 16,	3.8	28

76	Two-channel electrotactile stimulation for sensory feedback of fingers of prosthesis <b>2016</b> ,		6
75	Note: Position/torque control of antagonistic robot joint with high-compliant twisted string actuators (TSAs). <i>Review of Scientific Instruments</i> , <b>2016</b> , 87, 126107	1.7	2
74	Nondestructive evaluation of multilayered paint films in ambient atmosphere using terahertz reflection spectroscopy. <i>NDT and E International</i> , <b>2016</b> , 80, 71-76	4.1	9
73	Development of a robotic finger with an active dual-mode twisting actuation and a miniature tendon tension sensor <b>2016</b> ,		7
72	Nondestructive Material Characterization in the Terahertz Band by Selective Extraction of Sample-Induced Echo Signals. <i>Journal of Nondestructive Evaluation</i> , <b>2015</b> , 34, 1	2.1	8
71	Ultrashort stretched-pulse L-band laser using carbon-nanotube saturable absorber. <i>Optics Express</i> , <b>2015</b> , 23, 7779-85	3.3	25
70	A Portable and Remote 6-DOF Pose Sensor System With a Long Measurement Range Based on 1-D Laser Sensors. <i>IEEE Transactions on Industrial Electronics</i> , <b>2015</b> , 62, 5722-5729	8.9	16
69	Note: Vibration suppression using tunable vibration absorber based on stiffness variable magneto-rheological gel. <i>Review of Scientific Instruments</i> , <b>2015</b> , 86, 106106	1.7	13
68	A feasibility study of designing a tunable vibration absorber using stiffness variable magnetorheological gel <b>2015</b> ,		2
67	Morphology-based guidance line extraction for an autonomous weeding robot in paddy fields. <i>Computers and Electronics in Agriculture</i> , <b>2015</b> , 113, 266-274	6.5	42
66	Using common spatial pattern algorithm for unsupervised real-time estimation of fingertip forces from sEMG signals <b>2015</b> ,		4
65	Supercontinuum notch shaping via fiber Bragg grating for the excitation source in coherent anti-Stokes Raman spectroscopy <b>2015</b> ,		2
64	A novel disturbance observer based robust current-control for a PMSM drive system <b>2015</b> ,		2
63	Design of biped robot inspired by cats for fast running. <i>Electronics Letters</i> , <b>2014</b> , 50, 730-731	1.1	2
62	The Role of Relative Spinal Motion during Feline Galloping for Speed Performance. <i>Journal of Bionic Engineering</i> , <b>2014</b> , 11, 517-528	2.7	6
61	Using Intaglio-Shaped Bumps for Increasing the Conductive Particle Density in Lateral Thermosonic Process With Anisotropic Conductive Film. <i>IEEE Transactions on Components, Packaging and Manufacturing Technology</i> , <b>2014</b> , 4, 371-376	1.7	1
60	An advanced cargo handling system operating at sea. <i>International Journal of Control, Automation and Systems</i> , <b>2014</b> , 12, 852-860	2.9	2
59	Verification of the peak time approach for detection of step initiation using the UTRCEXO. <i>International Journal of Control, Automation and Systems</i> , <b>2014</b> , 12, 1070-1076	2.9	2

58	A novel actuation for a robotic fish using a flexible joint. <i>International Journal of Control, Automation and Systems</i> , <b>2014</b> , 12, 878-885	2.9	2
57	Structural Optimization of a Novel 6-DOF Pose Sensor System for Enhancing Noise Robustness at a Long Distance. <i>IEEE Transactions on Industrial Electronics</i> , <b>2014</b> , 61, 5622-5631	8.9	10
56	Conceptual and basic designs of the Mobile Harbor crane based on topology and shape optimization. <i>Structural and Multidisciplinary Optimization</i> , <b>2014</b> , 50, 505-515	3.6	17
55	Design of a cat-inspired robotic leg for fast running. <i>Advanced Robotics</i> , <b>2014</b> , 28, 1587-1598	1.7	13
54	Portable serial robot manipulator with distributed actuation mechanism <b>2014</b> ,		2
53	Note: Reliable and non-contact 6D motion tracking system based on 2D laser scanners for cargo transportation. <i>Review of Scientific Instruments</i> , <b>2014</b> , 85, 106102	1.7	3
52	Double-looped Mach-Zehnder interferometer for achieving multiple ring-down interferograms. <i>Optics Express</i> , <b>2014</b> , 22, 28353-62	3.3	0
51	Design improvement of the three-beam detector towards a precise long-range 6-degree of freedom motion sensor system. <i>Review of Scientific Instruments</i> , <b>2014</b> , 85, 015004	1.7	7
50	Controllable pneumatic generator based on the catalytic decomposition of hydrogen peroxide. <i>Review of Scientific Instruments</i> , <b>2014</b> , 85, 075109	1.7	4
49	Precedence walking assistance mechanism for exoskeletons with improved detection of step initiation based on gait analysis. <i>Journal of Mechanical Science and Technology</i> , <b>2014</b> , 28, 4353-4359	1.6	0
48	<b>2014</b> ,		11
47	Design and control of robot manipulator with a distributed actuation mechanism. <i>Mechatronics</i> , <b>2014</b> , 24, 1223-1230	3	5
46	Design, analysis and simulation of biped running robot <b>2014</b> ,		1
45	Remote position detection of steel coils using 2D laser scanners: Two-line-tracker <b>2014</b> ,		2
44	Auto-positioning of sliding planes based on virtual force. <i>International Journal of Control, Automation and Systems</i> , <b>2013</b> , 11, 798-804	2.9	3
43	Note: A compact three-axis optical force/torque sensor using photo-interrupters. <i>Review of Scientific Instruments</i> , <b>2013</b> , 84, 126109	1.7	23
42	An impulse-time perturbation approach for enhancing the robustness of extra-insensitive input shapers. <i>Automatica</i> , <b>2013</b> , 49, 3425-3431	5.7	20
41	Generalized design of disturbance observer for non-minimum phase system using an H-infinity approach <b>2013</b> ,		1

40	Finger module design based on dual-mode twisting actuation for explosive ordnance disposal gripper <b>2013</b> ,		1
39	Sliding Mechanism of Lateral Thermosonic Process With Anisotropic Conductive Film for High Productivity and High Reliability. <i>IEEE Transactions on Components, Packaging and Manufacturing Technology</i> , <b>2013</b> , 3, 205-212	1.7	3
38	Design and test of an adaptive vibration absorber based on magnetorheological elastomers and a hybrid electromagnet. <i>Journal of Intelligent Material Systems and Structures</i> , <b>2013</b> , 24, 803-812	2.3	27
37	Weighted virtual tangential vector algorithm for local path planning of mobile robots. <i>Electronics Letters</i> , <b>2013</b> , 49, 255-256	1.1	5
36	Reduced order disturbance observer for discrete-time linear systems. <i>Automatica</i> , <b>2013</b> , 49, 968-975	5.7	79
35	Robust Zero Placement for Motion Control of Lightly Damped Systems. <i>IEEE Transactions on Industrial Electronics</i> , <b>2013</b> , 60, 3857-3864	8.9	19
34	SoftGait: compliant walking assistance via pneumatically actuated robot legs. <i>Electronics Letters</i> , <b>2013</b> , 49, 1208-1209	1.1	5
33	Tuning the S-curve motion profile in short distance case <b>2013</b> ,		2
32	Development of anthropomorphic robot hand with dual-mode twisting actuation and electromagnetic joint locking mechanism <b>2013</b> ,		15
31	Design of Prosthetic Robot Hand with High Performances Based on Novel Actuation Principles. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , <b>2013</b> , 46, 313-318		4
30	Compound Explosives Detection and Component Analysis via Terahertz Time-Domain Spectroscopy. <i>Journal of the Optical Society of Korea</i> , <b>2013</b> , 17, 454-460		25
29	Developing Accurate Long-Distance 6-DOF Motion Detection With One-Dimensional Laser Sensors: Three-Beam Detection System. <i>IEEE Transactions on Industrial Electronics</i> , <b>2012</b> , 1-1	8.9	14
28	Developing a robust sensing system for remote relative 6-DOF motion using 1-D laser sensors <b>2012</b> ,		5
27	Advanced sensing system of crane spreader motion(for Mobile Harbor) <b>2012</b> ,		3
26	Structure optimization of 1-D laser sensors assembly for robust 6-DOF measurement <b>2012</b> ,		1
25	A Robot Finger Design Using a Dual-Mode Twisting Mechanism to Achieve High-Speed Motion and Large Grasping Force. <i>IEEE Transactions on Robotics</i> , <b>2012</b> , 28, 1398-1405	6.5	48
24	Note: real time control of a tunable vibration absorber based on magnetorheological elastomer for suppressing tonal vibrations. <i>Review of Scientific Instruments</i> , <b>2012</b> , 83, 046108	1.7	22
23	Degradation of optical properties of a film-type single-wall carbon nanotubes saturable absorber (SWNT-SA) with an Er-doped all-fiber laser. <i>Optics Express</i> , <b>2012</b> , 20, 12966-74	3.3	34

22	A Survey of Control Issues in Optical Data Storage Systems. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , <b>2011</b> , 44, 854-868		7
21	Bias Compensation for Fast Servo Track Writer Seek Control. <i>IEEE Transactions on Magnetics</i> , <b>2011</b> , 47, 1937-1943	2	9
20	Developing a real time controlled adaptive MRE-based tunable vibration absorber system for a linear cryogenic cooler <b>2011</b> ,		5
19	Ground following locomotion of a robot inspired by pill bugs <b>2011</b> ,		1
18	Formulating a Laplace domain approach for tuning motion profiles <b>2011</b> ,		4
17	A novel smooth impact drive mechanism actuation method with dual-slider for a compact zoom lens system. <i>Review of Scientific Instruments</i> , <b>2011</b> , 82, 085105	1.7	27
16	Elastic region of an ACF joint for thermosonic flip-chip bonding. <i>Journal of Micromechanics and Microengineering</i> , <b>2011</b> , 21, 095015	2	5
15	Vibration isolation strategies using magneto-rheological elastomer for a miniature cryogenic cooler in space application <b>2010</b> ,		9
14	Using lateral vibration for thermosonic flip-chip interconnection with anisotropic conductive film. <i>Journal of Micromechanics and Microengineering</i> , <b>2010</b> , 20, 105015	2	9
13	Disturbance Observer for Estimating Higher Order Disturbances in Time Series Expansion. <i>IEEE Transactions on Automatic Control</i> , <b>2010</b> , 55, 1905-1911	5.9	196
12	Distributed-Actuation Mechanism for a Finger-Type Manipulator: Theory and Experiments. <i>IEEE Transactions on Robotics</i> , <b>2010</b> , 26, 569-575	6.5	15
11	A Closed-Form Solution to Asymmetric Motion Profile Allowing Acceleration Manipulation. <i>IEEE Transactions on Industrial Electronics</i> , <b>2010</b> , 57, 2499-2506	8.9	38
10	BLDC motor driven robot finger design using the sliding actuation principle <b>2010</b> ,		2
9	Precise Control Law Design of Robot Finger Embedding Distributed Actuation Mechanism. <i>Journal of Institute of Control, Robotics and Systems</i> , <b>2010</b> , 16, 846-851	1	1
8	Sliding Mode Control Using Novel Sliding Surfaces. <i>Lecture Notes in Control and Information Sciences</i> , <b>2009</b> ,	0.5	88
7	A practically efficient method for motion control based on asymmetric velocity profile. <i>International Journal of Machine Tools and Manufacture</i> , <b>2009</b> , 49, 678-682	9.4	21
6	A Lyapunov Approach for Discrete-time Sliding Hyperplane Design and Robust Sliding Mode Control using MROF. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , <b>2008</b> , 41, 1129-1134		1
5	Sliding Mode Design via Quadratic Performance Optimization with Pole-Clustering Constraint. <i>SIAM Journal on Control and Optimization</i> , <b>2004</b> , 43, 670-684	1.9	21

4	Disturbance attenuation via strictly positive real compensators. <i>Journal of the Franklin Institute</i> , <b>2003</b> , 340, 515-521	4	2
3	Eccentricity Compensation in Optical Storage Systems: Analysis and Experiments. <i>Japanese Journal of Applied Physics</i> , <b>2002</b> , 41, 6302-6303	1.4	5
2	Designing robust sliding hyperplanes for parametric uncertain systems: a Riccati approach. <i>Automatica</i> , <b>2000</b> , 36, 1041-1048	5.7	100
1	Using scales in the multiobjective approach. <i>IEEE Transactions on Automatic Control</i> , <b>2000</b> , 45, 973-977	5.9	8