

Soohyun Kim

List of Publications by Year in descending order

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119
papers

1,539
citations

361045

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344852

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119
all docs

119
docs citations

119
times ranked

1618
citing authors

#	ARTICLE	IF	CITATIONS
1	Disturbance Observer for Estimating Higher Order Disturbances in Time Series Expansion. IEEE Transactions on Automatic Control, 2010, 55, 1905-1911.	3.6	270
2	Measurement of the thickness profile of a transparent thin film deposited upon a pattern structure with an acousto-optic tunable filter. Optics Letters, 2002, 27, 1893.	1.7	84
3	A Robot Finger Design Using a Dual-Mode Twisting Mechanism to Achieve High-Speed Motion and Large Grasping Force. IEEE Transactions on Robotics, 2012, 28, 1398-1405.	7.3	76
4	Designing Anthropomorphic Robot Hand With Active Dual-Mode Twisted String Actuation Mechanism and Tiny Tension Sensors. IEEE Robotics and Automation Letters, 2017, 2, 1571-1578.	3.3	76
5	Morphology-based guidance line extraction for an autonomous weeding robot in paddy fields. Computers and Electronics in Agriculture, 2015, 113, 266-274.	3.7	73
6	Flow-induced voltage generation in non-ionic liquids over monolayer graphene. Applied Physics Letters, 2013, 102, .	1.5	52
7	Six-degree-of-freedom displacement measurement system using a diffraction grating. Review of Scientific Instruments, 2000, 71, 3214-3219.	0.6	50
8	Controller Design of an Electric Power Steering System. IEEE Transactions on Control Systems Technology, 2018, 26, 748-755.	3.2	45
9	Flow-induced voltage generation in high-purity metallic and semiconducting carbon nanotubes. Applied Physics Letters, 2011, 99, 104103.	1.5	44
10	Degradation of optical properties of a film-type single-wall carbon nanotubes saturable absorber (SWNT-SA) with an Er-doped all-fiber laser. Optics Express, 2012, 20, 12966.	1.7	42
11	Estimating Clothing Thermal Insulation Using an Infrared Camera. Sensors, 2016, 16, 341.	2.1	40
12	Compound Explosives Detection and Component Analysis via Terahertz Time-Domain Spectroscopy. Journal of the Optical Society of Korea, 2013, 17, 454-460.	0.6	36
13	Effective image enhancement techniques for fog-affected indoor and outdoor images. IET Image Processing, 2018, 12, 465-471.	1.4	35
14	A linear air bearing stage with active magnetic preloads for ultraprecise straight motion. Precision Engineering, 2010, 34, 186-194.	1.8	32
15	Design of a cat-inspired robotic leg for fast running. Advanced Robotics, 2014, 28, 1587-1598.	1.1	30
16	Note: A compact three-axis optical force/torque sensor using photo-interrupters. Review of Scientific Instruments, 2013, 84, 126109.	0.6	27
17	Polarization insensitive graphene saturable absorbers using etched fiber for highly stable ultrafast fiber lasers. Optics Express, 2015, 23, 22116.	1.7	24
18	A Novel Passive Quasi-Zero Stiffness Isolator for Ultra-Precision Measurement Systems. International Journal of Precision Engineering and Manufacturing, 2019, 20, 1573-1580.	1.1	23

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19	A Portable and Remote 6-DOF Pose Sensor System With a Long Measurement Range Based on 1-D Laser Sensors. IEEE Transactions on Industrial Electronics, 2015, 62, 5722-5729.	5.2	22
20	Developing Accurate Long Distance 6-DOF Motion Detection with 1-D Laser Sensors: Three-Beam Detection System. IEEE Transactions on Industrial Electronics, 2012, , 1-1.	5.2	21
21	Flow-induced voltage generation over monolayer graphene in the presence of herringbone grooves. Nanoscale Research Letters, 2013, 8, 487.	3.1	21
22	A Novel Fabrication of 3.6 nm High Graphene Nanochannels for Ultrafast Ion Transport. Advanced Materials, 2017, 29, 1605854.	11.1	21
23	Design of a Prism to Compensate the Image-shifting Error of the Acousto-optic Tunable Filter. Optics Express, 2008, 16, 17138.	1.7	18
24	Highly Increased Flow-Induced Power Generation on Plasmonically Carbonized Single-Walled Carbon Nanotube. ACS Applied Materials & Interfaces, 2016, 8, 29877-29882.	4.0	18
25	Independent traction control for uneven terrain using stick-slip phenomenon: application to a stair climbing robot. Autonomous Robots, 2007, 23, 3-18.	3.2	15
26	Nondestructive evaluation of multilayered paint films in ambient atmosphere using terahertz reflection spectroscopy. NDT and E International, 2016, 80, 71-76.	1.7	14
27	A Study on the Effects of Multiwall Carbon Nanotubes on Dynamic Stiffness of Hydrophilic-base Magnetorheological Gel. Current Nanoscience, 2019, 15, 319-323.	0.7	14
28	Two-channel electrotactile stimulation for sensory feedback of fingers of prosthesis. , 2016, , .		13
29	Nondestructive Material Characterization in the Terahertz Band by Selective Extraction of Sample-Induced Echo Signals. Journal of Nondestructive Evaluation, 2015, 34, 1.	1.1	12
30	Vibration isolation strategies using magneto-rheological elastomer for a miniature cryogenic cooler in space application. , 2010, , .		11
31	Structural Optimization of a Novel 6-DOF Pose Sensor System for Enhancing Noise Robustness at a Long Distance. IEEE Transactions on Industrial Electronics, 2014, 61, 5622-5631.	5.2	11
32	Selective atomic layer deposition onto directly transferred monolayer graphene. Materials Letters, 2016, 165, 45-49.	1.3	10
33	High sensitivity inductive sensing system for position measurement. , 0, , .		9
34	Experimental determination of the spring constant of an individual multiwalled carbon nanotube cantilever using fluorescence measurement. Applied Physics Letters, 2009, 95, .	1.5	9
35	Actuation of a robotic fish caudal fin for low reaction torque. Review of Scientific Instruments, 2011, 82, 075114.	0.6	9
36	Design of modular gripper for explosive ordinance disposal robot manipulator based on modified dual-mode twisting actuation. International Journal of Control, Automation and Systems, 2016, 14, 1322-1330.	1.6	9

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37	Advanced sensing system of crane spreader motion(for Mobile Harbor). , 2012, , .		8
38	The Role of Relative Spinal Motion during Feline Galloping for Speed Performance. Journal of Bionic Engineering, 2014, 11, 517-528.	2.7	8
39	Development of a robotic finger with an active dual-mode twisting actuation and a miniature tendon tension sensor. , 2016, , .		8
40	Design and control of antagonistic robot joint with Twisted String Actuators. , 2016, , .		8
41	Practical Approach for Controlling Optical Image Stabilization System. International Journal of Control, Automation and Systems, 2020, 18, 824-833.	1.6	8
42	Developing a robust sensing system for remote relative 6-DOF motion using 1-D laser sensors. , 2012, , .		7
43	Vacuum chamber-free centrifuge with magnetic bearings. Review of Scientific Instruments, 2013, 84, 095106.	0.6	7
44	Weighted virtual tangential vector algorithm for local path planning of mobile robots. Electronics Letters, 2013, 49, 255-256.	0.5	7
45	Design improvement of the three-beam detector towards a precise long-range 6-degree of freedom motion sensor system. Review of Scientific Instruments, 2014, 85, 015004.	0.6	7
46	Vision based guidance line extraction for autonomous weed control robot in paddy field. , 2015, , .		6
47	A novel disturbance observer based robust current-control for a PMSM drive system. , 2015, , .		6
48	SoftGait: compliant walking assistance via pneumatically actuated robot legs. Electronics Letters, 2013, 49, 1208-1209.	0.5	5
49	Controllable pneumatic generator based on the catalytic decomposition of hydrogen peroxide. Review of Scientific Instruments, 2014, 85, 075109.	0.6	5
50	Bioinspired Image Stabilization Control Using the Adaptive Gain Adjustment Scheme of Vestibulo-Ocular Reflex. IEEE/ASME Transactions on Mechatronics, 2016, 21, 922-930.	3.7	5
51	A passively adaptive variable-radius pulley for a tendon-driven robotic joint. Mechanism and Machine Theory, 2018, 128, 110-124.	2.7	5
52	An H ∞ Design of Disturbance Observer for a Class of Linear Time-invariant Single-input/Single-output Systems. International Journal of Control, Automation and Systems, 2020, 18, 1662-1670.	1.6	5
53	Design and Evaluation of the Unmanned Technology Research Center Exoskeleton Implementing the Precedence Walking Assistance Mechanism. Journal of Electrical Engineering and Technology, 2015, 10, 2376-2383.	1.2	5
54	Development of quadruped robot for inspection of underground pipelines in nuclear power plants. Electronics Letters, 2022, 58, 234-236.	0.5	5

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55	Development of magnetically preloaded air bearings for a linear slide: Active compensation of three degrees of freedom motion errors. Review of Scientific Instruments, 2008, 79, 036104.	0.6	4
56	Auto-positioning of sliding planes based on virtual force. International Journal of Control, Automation and Systems, 2013, 11, 798-804.	1.6	4
57	Tuning the S-curve motion profile in short distance case. , 2013, , .		4
58	Investigation of fiber Bragg grating as a spectral notch shaper for single-pulse coherent anti-Stokes Raman spectroscopy. Optics Communications, 2017, 383, 107-112.	1.0	4
59	Generalized Control Framework for Exoskeleton Robots by Interaction Force Feedback Control. International Journal of Control, Automation and Systems, 2021, 19, 3419-3427.	1.6	4
60	Compensation of surface inclination for detecting in optical triangulation sensors. , 0, , .		3
61	Development of the piezoelectric motor using momentum generated by bimorphs. Review of Scientific Instruments, 2005, 76, 105109.	0.6	3
62	Application of sliding actuation mechanism to robot finger. , 2009, , .		3
63	Ground following locomotion of a robot inspired by pill bugs. , 2011, , .		3
64	Dielectric Electroactive Polymer energy harvesting system forward path design for different vibration input patterns. , 2011, , .		3
65	Generalized design of disturbance observer for non-minimum phase system using an H-infinity approach. , 2013, , .		3
66	Sliding Mechanism of Lateral Thermoacoustic Process With Anisotropic Conductive Film for High Productivity and High Reliability. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2013, 3, 205-212.	1.4	3
67	Reinterpretation of disturbance observer as an add-on controller. , 2014, , .		3
68	A novel actuation for a robotic fish using a flexible joint. International Journal of Control, Automation and Systems, 2014, 12, 878-885.	1.6	3
69	Highly Enhanced Electromechanical Stability of Large-Area Graphene with Increased Interfacial Adhesion Energy by Electrothermal-Direct Transfer for Transparent Electrodes. ACS Applied Materials & Interfaces, 2016, 8, 23396-23403.	4.0	3
70	Highly enhanced compatibility of human brain vascular pericyte cells on monolayer graphene. Bioengineered, 2017, 8, 85-91.	1.4	3
71	Multiplex CARS imaging with spectral notch shaped laser pulses delivered by optical fibers. Optics Express, 2017, 25, 32178.	1.7	3
72	Control of tendon-driven(Twisted-string Actuator) robotic joint with adaptive variable-radius pulley. , 2020, , .		3

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73	Highly Damage-Resistant Thin Film Saturable Absorber Based on Mechanically Functionalized SWCNTs. <i>Nanoscale Research Letters</i> , 2022, 17, 11.	3.1	3
74	Moving fringe detection for ultra precision position measurement. , 0, , .		2
75	Structure optimization of 1-D laser sensors assembly for robust 6-DOF measurement. , 2012, , .		2
76	Note: Dynamic analysis of a robotic fish motion with a caudal fin with vertical phase differences. <i>Review of Scientific Instruments</i> , 2013, 84, 036108.	0.6	2
77	A tri-axial force sensor based on light intensity modulation for detecting ground reaction force. , 2013, , .		2
78	Portable serial robot manipulator with distributed actuation mechanism. , 2014, , .		2
79	Precedence walking assistance mechanism for exoskeletons with improved detection of step initiation based on gait analysis. <i>Journal of Mechanical Science and Technology</i> , 2014, 28, 4353-4359.	0.7	2
80	Remote position detection of steel coils using 2D laser scanners: Two-line-tracker. , 2014, , .		2
81	Design of biped robot inspired by cats for fast running. <i>Electronics Letters</i> , 2014, 50, 730-731.	0.5	2
82	Verification of the peak time approach for detection of step initiation using the UTRCEXO. <i>International Journal of Control, Automation and Systems</i> , 2014, 12, 1070-1076.	1.6	2
83	The analysis of new 3 DOF parallel delta type leg for a quadruped robot to maximize actuation torque reduction. , 2015, , .		2
84	A DOB based robust current control of Permanent Magnet Synchronous Motor. , 2015, , .		2
85	Supercontinuum notch shaping via fiber Bragg grating for the excitation source in coherent anti-Stokes Raman spectroscopy. , 2015, , .		2
86	Automatic parking system using background subtraction with CCTV environment international conference on control, automation and systems (ICCAS 2016). , 2016, , .		2
87	Note: Position/torque control of antagonistic robot joint with high-compliant twisted string actuators (TSAs). <i>Review of Scientific Instruments</i> , 2016, 87, 126107.	0.6	2
88	Control of and experimentation on an active dual-mode twisted string actuation mechanism. , 2017, , .		2
89	Development of a vehicle body velocity sensor using Modulated Motion Blur. , 2017, , .		2
90	Novel Descattering Approach for Stereo Vision in Dense Suspended Scatterer Environments. <i>Sensors</i> , 2017, 17, 1425.	2.1	2

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91	A simple terahertz time-domain signal reconstruction algorithm for thickness measurement in real-world applications. Measurement: Journal of the International Measurement Confederation, 2020, 151, 107201.	2.5	2
92	Accurate thickness measurement using a single terahertz pulse obtained in ambient atmosphere. Optics Communications, 2020, 462, 125276.	1.0	2
93	Neural Network Based Contact Force Control Algorithm for Walking Robots. Sensors, 2021, 21, 287.	2.1	2
94	Simulation for energy harvesting system based on Dielectric Electro Active Polymers. , 2011, , .		1
95	Analysis on a robotic fish propulsion by using flexible structure. , 2012, , .		1
96	Single-pulse coherent anti-Stokes Raman spectroscopy via fiber Bragg grating. , 2016, , .		1
97	Note: Reconfigurable pelvis mechanism for efficient multi-locomotion: Biped and quadruped walking. Review of Scientific Instruments, 2017, 88, 126104.	0.6	1
98	General design of disturbance observer for stable linear time-invariant single-input/single-output systems via an H_{∞} approach. , 2017, , .		1
99	Note: Rotor design optimization for vacuum chamber-free ultracentrifuge. Review of Scientific Instruments, 2018, 89, 116107.	0.6	1
100	Non-destructive surface profile measurement of a thin film deposited on a patterned sample. AIP Conference Proceedings, 2003, , .	0.3	0
101	One-dimensional Spectroscopic Measurement of Patterned Structures Using a Custom-built Spectral Imaging Ellipsometer. AIP Conference Proceedings, 2003, , .	0.3	0
102	Design of multi-joint tracked robot for adaptive uneven terrain driving. , 2009, , .		0
103	Analysis of Pneumatic Balloon Actuator. , 2011, , .		0
104	Prototyping circuit design for Dielectric Electroactive Polymers energy harvesting. , 2011, , .		0
105	Study of classification of failure states for Small Unmanned Ground Vehicle by response surface methodology. , 2011, , .		0
106	Analysis of rod vibration on a dual-slider smooth impact drive mechanism for a compact zoom lens system. , 2012, , .		0
107	Data processing of Terahertz signals for in situ explosives detection and component analysis via Terahertz time-domain spectroscopy. , 2012, , .		0
108	Faster detection of step initiation for the unmanned technology research center exoskeleton (UTRCEXO) with insole-type force sensing resistor (FSR). , 2013, , .		0

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109	Application of chemical reaction based pneumatic power generator to robot finger. , 2013, , .		0
110	Dynamic analysis of the spinal-pelvic motion match during feline galloping for speed increase into quadruped robotic system. , 2014, , .		0
111	Graphene: Ultraconformal Contact Transfer of Monolayer Graphene on Metal to Various Substrates (Adv. Mater. 37/2014). Advanced Materials, 2014, 26, 6520-6520.	11.1	0
112	Add-on controller design based on disturbance observer in H-infinity framework. , 2015, , .		0
113	Multilayered film monitoring using terahertz reflective time-domain spectroscopy. , 2015, , .		0
114	Development of the crossbow-type launcher for a small reconnaissance robot based on the axiomatic theorem. Journal of Advanced Mechanical Design, Systems and Manufacturing, 2016, 10, JAMDSM0084-JAMDSM0084.	0.3	0
115	Modified nonlinear pressure estimator of pneumatic actuator for force controller design. , 2017, , .		0
116	Note: Hybrid active/passive force feedback actuator using hydrostatic transmission. Review of Scientific Instruments, 2017, 88, 126103.	0.6	0
117	Trajectory adaptation method for fast walking control of an exoskeleton. , 2017, , .		0
118	Modulated Motion Blur-Based Vehicle Body Velocity and Pose Estimation Using an Optical Image Modulator. IEEE Transactions on Vehicular Technology, 2021, 70, 8744-8754.	3.9	0
119	Selective extraction of refractive index in the ambient atmosphere using terahertz time-domain spectroscopy. , 2019, , .		0