

# Kyu-Jin Cho

## List of Publications by Citations

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134  
papers

3,962  
citations

29  
h-index

59  
g-index

155  
ext. papers

5,018  
ext. citations

5.4  
avg, IF

5.85  
L-index

#	Paper	IF	Citations
134	Meshworm: A Peristaltic Soft Robot With Antagonistic Nickel Titanium Coil Actuators. <i>IEEE/ASME Transactions on Mechatronics</i> , <b>2013</b> , 18, 1485-1497	5.5	404
133	Exo-Glove: A Wearable Robot for the Hand with a Soft Tendon Routing System. <i>IEEE Robotics and Automation Magazine</i> , <b>2015</b> , 22, 97-105	3.4	253
132	Review of biomimetic underwater robots using smart actuators. <i>International Journal of Precision Engineering and Manufacturing</i> , <b>2012</b> , 13, 1281-1292	1.7	227
131	BIOMECHANICS. Jumping on water: Surface tension-dominated jumping of water striders and robotic insects. <i>Science</i> , <b>2015</b> , 349, 517-21	33.3	188
130	Review of manufacturing processes for soft biomimetic robots. <i>International Journal of Precision Engineering and Manufacturing</i> , <b>2009</b> , 10, 171-181	1.7	182
129	Hygrobot: A self-locomotive ratcheted actuator powered by environmental humidity. <i>Science Robotics</i> , <b>2018</b> , 3,	18.6	178
128	Flea-Inspired Catapult Mechanism for Miniature Jumping Robots. <i>IEEE Transactions on Robotics</i> , <b>2012</b> , 28, 1007-1018	6.5	143
127	. <i>IEEE/ASME Transactions on Mechatronics</i> , <b>2013</b> , 18, 419-429	5.5	142
126	Electronic skins for soft, compact, reversible assembly of wirelessly activated fully soft robots. <i>Science Robotics</i> , <b>2018</b> , 3,	18.6	104
125	Engineering design framework for a shape memory alloy coil spring actuator using a static two-state model. <i>Smart Materials and Structures</i> , <b>2012</b> , 21, 055009	3.4	92
124	Flytrap-inspired robot using structurally integrated actuation based on bistability and a developable surface. <i>Bioinspiration and Biomimetics</i> , <b>2014</b> , 9, 036004	2.6	84
123	An origami-inspired, self-locking robotic arm that can be folded flat. <i>Science Robotics</i> , <b>2018</b> , 3,	18.6	83
122	Wheel Transformer: A Wheel-Leg Hybrid Robot With Passive Transformable Wheels. <i>IEEE Transactions on Robotics</i> , <b>2014</b> , 30, 1487-1498	6.5	70
121	Exo-Glove Poly II: A Polymer-Based Soft Wearable Robot for the Hand with a Tendon-Driven Actuation System. <i>Soft Robotics</i> , <b>2019</b> , 6, 214-227	9.2	70
120	. <i>IEEE Robotics and Automation Letters</i> , <b>2017</b> , 2, 1725-1732	4.2	64
119	Development of a polymer-based tendon-driven wearable robotic hand <b>2016</b> ,		61
118	Kinematic Condition for Maximizing the Thrust of a Robotic Fish Using a Compliant Caudal Fin. <i>IEEE Transactions on Robotics</i> , <b>2012</b> , 28, 1216-1227	6.5	60

117	Origami Wheel Transformer: A Variable-Diameter Wheel Drive Robot Using an Origami Structure. <i>Soft Robotics</i> , <b>2017</b> , 4, 163-180	9.2	59
116	Design of an Optically Controlled MR-Compatible Active Needle. <i>IEEE Transactions on Robotics</i> , <b>2015</b> , 31, 1-11	6.5	57
115	Bioinspired dual-morphing stretchable origami. <i>Science Robotics</i> , <b>2019</b> , 4,	18.6	57
114	Omegabot : Biomimetic inchworm robot using SMA coil actuator and smart composite microstructures (SCM) <b>2009</b> ,		48
113	Soft Robotic Blocks: Introducing SoBL, a Fast-Build Modularized Design Block. <i>IEEE Robotics and Automation Magazine</i> , <b>2016</b> , 23, 30-41	3.4	43
112	Design of a variable-stiffness flapping mechanism for maximizing the thrust of a bio-inspired underwater robot. <i>Bioinspiration and Biomimetics</i> , <b>2014</b> , 9, 036002	2.6	39
111	The Deformable Wheel Robot Using Magic-Ball Origami Structure <b>2013</b> ,		39
110	Ladybird beetle-inspired compliant origami. <i>Science Robotics</i> , <b>2020</b> , 5,	18.6	38
109	Segmented binary control of shape memory alloy actuator systems using the Peltier effect <b>2004</b> ,		33
108	Eyes are faster than hands: A soft wearable robot learns user intention from the egocentric view. <i>Science Robotics</i> , <b>2019</b> , 4,	18.6	31
107	Implementation of various control algorithms for hand rehabilitation exercise using wearable robotic hand. <i>Intelligent Service Robotics</i> , <b>2013</b> , 6, 181-189	2.6	31
106	Deformable wheel robot based on origami structure <b>2013</b> ,		30
105	Toward a solution to the snapping problem in a concentric-tube continuum robot: Grooved tubes with anisotropy <b>2014</b> ,		29
104	Anisotropic Patterning to Reduce Instability of Concentric-Tube Robots. <i>IEEE Transactions on Robotics</i> , <b>2015</b> , 31, 1311-1323	6.5	28
103	Development and evaluation of a soft wearable weight support device for reducing muscle fatigue on shoulder. <i>PLoS ONE</i> , <b>2017</b> , 12, e0173730	3.7	27
102	Underactuated Adaptive Gripper Using Flexural Buckling. <i>IEEE Transactions on Robotics</i> , <b>2013</b> , 29, 1396-1407	10.7	27
101	Design and analysis of a stiffness adjustable structure using an endoskeleton. <i>International Journal of Precision Engineering and Manufacturing</i> , <b>2012</b> , 13, 1255-1258	1.7	25
100	A Novel Slack-Enabling Tendon Drive That Improves Efficiency, Size, and Safety in Soft Wearable Robots. <i>IEEE/ASME Transactions on Mechatronics</i> , <b>2017</b> , 22, 59-70	5.5	24

99	Kinematic analysis and experimental verification on the locomotion of gecko. <i>Journal of Bionic Engineering</i> , <b>2009</b> , 6, 246-254	2.7	23
98	Towards a biologically inspired small-scale water jumping robot <b>2008</b> ,		23
97	Flea inspired catapult mechanism with active energy storage and release for small scale jumping robot <b>2013</b> ,		22
96	Sensorless displacement estimation of a shape memory alloy coil spring actuator using inductance. <i>Smart Materials and Structures</i> , <b>2013</b> , 22, 025001	3.4	22
95	Architecture design of a multiaxis cellular actuator array using segmented binary control of shape memory alloy <b>2006</b> , 22, 831-843		22
94	Interfacing Soft and Hard: A Spring Reinforced Actuator. <i>Soft Robotics</i> , <b>2020</b> , 7, 44-58	9.2	22
93	Review of machine learning methods in soft robotics. <i>PLoS ONE</i> , <b>2021</b> , 16, e0246102	3.7	22
92	Deformable-wheel robot based on soft material. <i>International Journal of Precision Engineering and Manufacturing</i> , <b>2013</b> , 14, 1439-1445	1.7	21
91	Effect of initial tool-plate curvature on snap-through load of unsymmetric laminated cross-ply bistable composites. <i>Composite Structures</i> , <b>2015</b> , 122, 82-91	5.3	20
90	Towards a bio-mimetic flytrap robot based on a snap-through mechanism <b>2010</b> ,		20
89	JumpRoACH: A Trajectory-Adjustable Integrated Jumping-Crawling Robot. <i>IEEE/ASME Transactions on Mechatronics</i> , <b>2019</b> , 24, 947-958	5.5	19
88	Curvature tailoring of unsymmetric laminates with an initial curvature. <i>Journal of Composite Materials</i> , <b>2013</b> , 47, 3163-3174	2.7	19
87	Jointless structure and under-actuation mechanism for compact hand exoskeleton. <i>IEEE International Conference on Rehabilitation Robotics</i> , <b>2011</b> , 2011, 5975394	1.3	19
86	Continuously Variable Stiffness Mechanism Using Nonuniform Patterns on Coaxial Tubes for Continuum Microsurgical Robot. <i>IEEE Transactions on Robotics</i> , <b>2019</b> , 35, 1475-1487	6.5	18
85	<b>2015</b> ,		18
84	Exo-Wrist: A Soft Tendon-Driven Wrist-Wearable Robot With Active Anchor for Dart-Throwing Motion in Hemiplegic Patients. <i>IEEE Robotics and Automation Letters</i> , <b>2019</b> , 4, 4499-4506	4.2	18
83	Modification of microstructure and strength/conductivity properties of Cu-15 Ag in-situ composites by equal-channel angular pressing. <i>Metals and Materials International</i> , <b>2012</b> , 18, 355-360	2.4	18
82	Self-Folding Origami Using Torsion Shape Memory Alloy Wire Actuators <b>2014</b> ,		17

81	Component assembly with shape memory polymer fastener for microrobots. <i>Smart Materials and Structures</i> , <b>2014</b> , 23, 015011	3.4	16
80	The effect of leg compliance in multi-directional jumping of a flea-inspired mechanism. <i>Bioinspiration and Biomimetics</i> , <b>2017</b> , 12, 026006	2.6	15
79	Frog hopper-inspired direction-changing concept for miniature jumping robots. <i>Bioinspiration and Biomimetics</i> , <b>2016</b> , 11, 056015	2.6	15
78	Design of a slider-crank leg mechanism for mobile hopping robotic platforms. <i>Journal of Mechanical Science and Technology</i> , <b>2013</b> , 27, 207-214	1.6	15
77	A Novel Low-Cost, Large Curvature Bend Sensor Based on a Bowden-Cable. <i>Sensors</i> , <b>2016</b> , 16,	3.8	15
76	Hydrodynamic advantages of a low aspect-ratio flapping foil. <i>Journal of Fluids and Structures</i> , <b>2017</b> , 71, 70-77	3.1	14
75	Deformable soft wheel robot using hybrid actuation <b>2012</b> ,		14
74	. <i>Proceedings - IEEE International Conference on Robotics and Automation</i> , <b>2007</b> ,		14
73	Investigation on the control strategy of soft wearable robotic hand with slack enabling tendon actuator <b>2015</b> ,		13
72	Vortical structures around a flexible oscillating panel for maximum thrust in a quiescent fluid. <i>Journal of Fluids and Structures</i> , <b>2016</b> , 67, 241-260	3.1	13
71	Feedforward friction compensation of Bowden-cable transmission via loop routing <b>2015</b> ,		13
70	Design of a passive brake mechanism for tendon driven devices. <i>International Journal of Precision Engineering and Manufacturing</i> , <b>2012</b> , 13, 1487-1490	1.7	13
69	Dual-stiffness structures with reconfiguring mechanism: Design and investigation. <i>Journal of Intelligent Material Systems and Structures</i> , <b>2016</b> , 27, 995-1010	2.3	12
68	Wheel transformer: A miniaturized terrain adaptive robot with passively transformed wheels <b>2013</b> ,		12
67	High-load capacity origami transformable wheel. <i>Science Robotics</i> , <b>2021</b> , 6,	18.6	12
66	A large-stroke shape memory alloy spring actuator using double-coil configuration. <i>Smart Materials and Structures</i> , <b>2015</b> , 24, 095014	3.4	11
65	Fabrication of Composite and Sheet Metal Laminated Bistable Jumping Mechanism. <i>Journal of Mechanisms and Robotics</i> , <b>2015</b> , 7,	2.2	11
64	Capstan brake: Passive brake for tendon-driven mechanism <b>2012</b> ,		11

63	Development of a transformable wheel actuated by soft pneumatic actuators. <i>International Journal of Control, Automation and Systems</i> , <b>2017</b> , 15, 36-44	2.9	10
62	Finger-sized climbing robot using artificial proleg <b>2010</b> ,		10
61	Biomimetic Robots <b>2016</b> , 543-574		10
60	Control of a Bowden-Cable Actuation System With Embedded BoASensor for Soft Wearable Robots. <i>IEEE Transactions on Industrial Electronics</i> , <b>2020</b> , 67, 7669-7680	8.9	10
59	. <i>IEEE Robotics and Automation Letters</i> , <b>2020</b> , 5, 1883-1890	4.2	9
58	Evaluation of an improved soft meal assistive exoskeleton with an adjustable weight-bearing system for people with disability <b>2015</b> ,		9
57	Generalized curvature tailoring of bistable CFRP laminates by curing on a cylindrical tool-plate with misalignment. <i>Composites Science and Technology</i> , <b>2014</b> , 103, 127-133	8.6	9
56	Development of A Meal Assistive Exoskeleton made of Soft Materials for polymyositis patients <b>2014</b> ,		9
55	Design and Manufacturing a Bio-inspired Variable Stiffness Mechanism in a Robotic Dolphin. <i>Lecture Notes in Computer Science</i> , <b>2013</b> , 302-309	0.9	9
54	Fast, compact, and lightweight shape-shifting system composed of distributed self-folding origami modules <b>2016</b> ,		8
53	Wake and thrust of an angularly reciprocating plate. <i>Journal of Fluid Mechanics</i> , <b>2013</b> , 720, 545-557	3.7	8
52	A feasibility study on tension control of Bowden-cable based on a dual-wire scheme <b>2017</b> ,		8
51	Role of compliant leg in the flea-inspired jumping mechanism <b>2014</b> ,		8
50	Design and control of vast DOF wet SMA array actuators		8
49	A Needlescopic Wrist Mechanism With Articulated Motion and Kinematic Tractability for Micro Laparoscopic Surgery. <i>IEEE/ASME Transactions on Mechatronics</i> , <b>2020</b> , 25, 229-238	5.5	8
48	Force characteristics of rolling contact joint for compact structure <b>2016</b> ,		7
47	Design & analysis a flytrap robot using bi-stable composite <b>2011</b> ,		7
46	Development of a Multi-functional Soft Robot (SNUMAX) and Performance in RoboSoft Grand Challenge. <i>Frontiers in Robotics and AI</i> , <b>2016</b> , 3,	2.8	7

45	Reliability analysis of a tendon-driven actuation for soft robots. <i>International Journal of Robotics Research</i> , <b>2021</b> , 40, 494-511	5.7	7
44	A Positive Pressure Jamming Based Variable Stiffness Structure and its Application on Wearable Robots. <i>IEEE Robotics and Automation Letters</i> , <b>2021</b> , 6, 8078-8085	4.2	7
43	Learning-Based Fingertip Force Estimation for Soft Wearable Hand Robot With Tendon-Sheath Mechanism. <i>IEEE Robotics and Automation Letters</i> , <b>2020</b> , 5, 946-953	4.2	6
42	Design of a Bioinspired Robotic Hand: Magnetic Synapse Sensor Integration for a Robust Remote Tactile Sensing. <i>IEEE Robotics and Automation Letters</i> , <b>2018</b> , 3, 3545-3552	4.2	6
41	The effect of compliant joint and caudal fin in thrust generation for robotic fish <b>2010</b> ,		6
40	Evaluation of the antagonistic tendon driven system for SNU Exo-Glove <b>2012</b> ,		6
39	Research on Technology Status and Development Direction of Wearable Robot. <i>Fashion &amp; Textile Research Journal</i> , <b>2019</b> , 21, 640-655	0.5	6
38	Joint Angle Estimation of a Tendon-Driven Soft Wearable Robot through a Tension and Stroke Measurement. <i>Sensors</i> , <b>2020</b> , 20,	3.8	5
37	Design of the shape memory alloy coil spring actuator for the soft deformable wheel robot <b>2012</b> ,		5
36	Development of an Insect Size Micro Jumping Robot. <i>Lecture Notes in Computer Science</i> , <b>2014</b> , 405-407	0.9	5
35	Single to Multi: Data-Driven High Resolution Calibration Method for Piezoresistive Sensor Array. <i>IEEE Robotics and Automation Letters</i> , <b>2021</b> , 6, 4970-4977	4.2	5
34	Tendon-Driven Jamming Mechanism for Configurable Variable Stiffness. <i>Soft Robotics</i> , <b>2021</b> , 8, 109-118	9.2	5
33	Single EMG Sensor-Driven Robotic Glove Control for Reliable Augmentation of Power Grasping. <i>IEEE Transactions on Medical Robotics and Bionics</i> , <b>2021</b> , 3, 179-189	3.1	5
32	Development and Preclinical Trials of a Novel Steerable Cannula for 360° Arthroscopic Capsular Release in Minimally Invasive Surgery. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference</i> , <b>2019</b> , 2019, 4033-4038	0.9	4
31	Design of anisotropic pneumatic artificial muscles and their applications to soft wearable devices for text neck symptoms. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference</i> , <b>2017</b> , 2017, 4135-4138	0.9	4
30	Omegabot: Crawling robot inspired by Ascotis Selenaria <b>2010</b> ,		4
29	Bio-inspired Design of a Double-Sided Crawling Robot. <i>Lecture Notes in Computer Science</i> , <b>2017</b> , 562-566	0.9	4
28	Wearable Lymphedema Massaging Modules: Proof of Concept using Origami-inspired Soft Fabric Pneumatic Actuators. <i>IEEE International Conference on Rehabilitation Robotics</i> , <b>2019</b> , 2019, 950-956	1.3	3

27	A jumping robotic insect based on a torque reversal catapult mechanism <b>2013</b> ,		3
26	Snap-through behavior of bi-stable composite structure using SMA spring actuator <b>2011</b> ,		3
25	Soft Morphing Motion of Flytrap Robot Using Bending Propagating Actuation. <i>Journal of Institute of Control, Robotics and Systems</i> , <b>2012</b> , 18, 168-174	1	3
24	Underwater maneuvering of robotic sheets through buoyancy-mediated active flutter. <i>Science Robotics</i> , <b>2021</b> , 6,	18.6	3
23	4D Printing of Continuous Shape Representation. <i>Advanced Materials Technologies</i> , <b>2021</b> , 6, 2100133	6.8	3
22	Design, fabrication and analysis of a body-caudal fin propulsion system for a microrobotic fish <b>2008</b> ,		2
21	Multi-Axis SMA Actuator Array for Driving Anthropomorphic Robot Hand		2
20	Multi-Segment State Coordination for Reducing Latency Time of Shape Memory Alloy Actuator Systems		2
19	Curved Compliant Facet Origami-Based Self-Deployable Gliding Wing Module for Jump-Gliding <b>2016</b> ,		2
18	Morphing Origami Block for Lightweight Reconfigurable System. <i>IEEE Transactions on Robotics</i> , <b>2021</b> , 37, 494-505	6.5	2
17	An Omnidirectional Jumper with Expanded Movability via Steering, Self-Righting and Take-off Angle Adjustment <b>2018</b> ,		2
16	Body-powered variable impedance: An approach to augmenting humans with a passive device by reshaping lifting posture. <i>Science Robotics</i> , <b>2021</b> , 6,	18.6	2
15	Design of Continuum Robot With Variable Stiffness for Gastrointestinal Stenting Using Conformability Factor. <i>IEEE Transactions on Medical Robotics and Bionics</i> , <b>2020</b> , 2, 529-532	3.1	1
14	Concept of variable transmission for tendon driven mechanism <b>2013</b> ,		1
13	Design and manufacturing a robotic dolphin to increase dynamic performance <b>2013</b> ,		1
12	Meso-scale compliant gripper inspired by caterpillar's proleg <b>2011</b> ,		1
11	Deployable Soft Pneumatic Networks (D-PneuNets) Actuator With Dual-Morphing Origami Chambers for High-Compactness. <i>IEEE Robotics and Automation Letters</i> , <b>2022</b> , 7, 1262-1269	4.2	1
10	Review of the Insect-Inspired Robots: from Single to Multi-Modal Locomotion. <i>Journal of the Korean Society for Precision Engineering</i> , <b>2018</b> , 35, 911-923	0.3	1



9	Maximum Thrust Condition by Compliant Joint of a Caudal Fin for Developing a Robotic Fish. <i>Journal of Institute of Control, Robotics and Systems</i> , <b>2012</b> , 18, 103-109	1	1
8	. <i>IEEE Robotics and Automation Letters</i> , <b>2020</b> , 5, 5858-5865	4.2	1
7	Design Optimization of Asymmetric Patterns for Variable Stiffness of Continuum Tubular Robots. <i>IEEE Transactions on Industrial Electronics</i> , <b>2021</b> , 1-1	8.9	1
6	Anthropomorphic Prosthetic Hand Inspired by Efficient Swing Mechanics for Sports Activities. <i>IEEE/ASME Transactions on Mechatronics</i> , <b>2021</b> , 1-1	5.5	1
5	A Dual-Origami Design that Enables the Quasisequential Deployment and Bending Motion of Soft Robots and Grippers. <i>Advanced Intelligent Systems</i> , <b>2022</b> , 4, 2100176	6	1
4	Slider-Tendon Linear Actuator with Under-actuation and Fast-connection for Soft Wearable Robots. <i>IEEE/ASME Transactions on Mechatronics</i> , <b>2021</b> , 1-1	5.5	0
3	Dimensionality reduction of cellular actuator arrays using the concept of synergy for driving a robotic hand. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society</i> , <b>2006</b> , 2006, 2718-21		
2	Survey of Brassiere Related Clothing Tendency for Mastectomy Patients. <i>Fashion &amp; Textile Research Journal</i> , <b>2019</b> , 21, 800-812	0.5	
1	Development of Efficiency Enhanced Scotch Yoke Mechanism for Robotic Fish. <i>International Journal of Precision Engineering and Manufacturing</i> , <b>2018</b> , 19, 1507-1513	1.7	