Li Wen

List of Publications by Year
in descending order

69 papers	3,008 citations	147801 31 h-index	175258 52 g-index
69 all docs	69 docs citations	69 times ranked	2433 citing authors

#	Article	IF	Citations
1	Multimode Grasping Soft Gripper Achieved by Layer Jamming Structure and Tendon-Driven Mechanism. Soft Robotics, 2022, 9, 233-249.	8.0	41
2	Roadmap on soft robotics: multifunctionality, adaptability and growth without borders. Multifunctional Materials, 2022, 5, 032001.	3.7	37
3	A Biomimetic Suction Cup With a V-Notch Structure Inspired by the Net-Winged Midge Larvae. IEEE Robotics and Automation Letters, 2022, 7, 3547-3554.	5.1	3
4	A biomimetic remora disc with tunable, reversible adhesion for surface sliding and skimming. Bioinspiration and Biomimetics, 2022, 17, 036001.	2.9	7
5	Bio-inspired physical intelligence for soft robotics. Chinese Science Bulletin, 2022, 67, 959-975.	0.7	5
6	Editorial: Focus on research from China in Bioinspiration & Biomimetics. Bioinspiration and Biomimetics, 2022, , .	2.9	0
7	Aerial-aquatic robots capable of crossing the air-water boundary and hitchhiking on surfaces. Science Robotics, 2022, 7, eabm6695.	17.6	56
8	A novel robotic visual perception framework for underwater operation. Frontiers of Information Technology and Electronic Engineering, 2022, 23, 1602-1619.	2.6	3
9	Joint Anchor-Feature Refinement for Real-Time Accurate Object Detection in Images and Videos. IEEE Transactions on Circuits and Systems for Video Technology, 2021, 31, 594-607.	8.3	36
10	A soft manipulator for efficient delicate grasping in shallow water: Modeling, control, and real-world experiments. International Journal of Robotics Research, 2021, 40, 449-469.	8.5	118
11	A Multimodal, Enveloping Soft Gripper: Shape Conformation, Bioinspired Adhesion, and Expansion-Driven Suction. IEEE Transactions on Robotics, 2021, 37, 350-362.	10.3	71
12	A Tapered Soft Robotic Oropharyngeal Swab for Throat Testing: A New Way to Collect Sputa Samples. IEEE Robotics and Automation Magazine, 2021, 28, 90-100.	2.0	17
13	Editorial: Integrated Multi-modal and Sensorimotor Coordination for Enhanced Human-Robot Interaction. Frontiers in Neurorobotics, 2021, 15, 673659.	2.8	0
14	Soft Origami Gripper with Variable Effective Length. Advanced Intelligent Systems, 2021, 3, 2000251.	6.1	27
15	A biomimetic fish finlet with a liquid metal soft sensor for proprioception and underwater sensing. Bioinspiration and Biomimetics, 2021, 16, 065007.	2.9	5
16	Introduction to the focused section on flexible mechatronics for robotics. International Journal of Intelligent Robotics and Applications, 2021, 5, 283-286.	2.8	2
17	Prediction model-based learning adaptive control for underwater grasping of a soft manipulator. International Journal of Intelligent Robotics and Applications, 2021, 5, 337-353.	2.8	3
18	Legless soft robots capable of rapid, continuous, and steered jumping. Nature Communications, 2021, 12, 7028.	12.8	38

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19	A Three-Fingered Force Feedback Glove Using Fiber-Reinforced Soft Bending Actuators. IEEE Transactions on Industrial Electronics, 2020, 67, 7681-7690.	7.9	32
20	A soft gripper with programmable effective length, tactile and curvature sensory feedback. Smart Materials and Structures, 2020, 29, 035006.	3.5	46
21	A fluidâ€"structure interaction solver for the study on a passively deformed fish fin with non-uniformly distributed stiffness. Journal of Fluids and Structures, 2020, 92, 102778.	3.4	30
22	Underwater Mobile Manipulation: A Soft Arm on a Benthic Legged Robot. IEEE Robotics and Automation Magazine, 2020, 27, 12-26.	2.0	32
23	Tensegrity metamaterials for soft robotics. Science Robotics, 2020, 5, .	17.6	34
24	A Proprioceptive Soft Tentacle Gripper Based on Crosswise Stretchable Sensors. IEEE/ASME Transactions on Mechatronics, 2020, 25, 1841-1850.	5.8	34
25	Octopus Arm-Inspired Tapered Soft Actuators with Suckers for Improved Grasping. Soft Robotics, 2020, 7, 639-648.	8.0	171
26	Vertical Fibrous Morphology and Structure-Function Relationship in Natural and Biomimetic Suction-Based Adhesion Discs. Matter, 2020, 2, 1207-1221.	10.0	26
27	A 1 mm-Thick Miniatured Mobile Soft Robot With Mechanosensation and Multimodal Locomotion. IEEE Robotics and Automation Letters, 2020, 5, 3291-3298.	5.1	19
28	Linear Acceleration of an Undulatory Robotic Fish with Dynamic Morphing Median Fin under the Instantaneous Self-propelled Condition. Journal of Bionic Engineering, 2020, 17, 241-253.	5.0	7
29	Detachment of the remora suckerfish disc: kinematics and a bio-inspired robotic model. Bioinspiration and Biomimetics, 2020, 15, 056018.	2.9	16
30	Complex multiphase organohydrogels with programmable mechanics toward adaptive soft-matter machines. Science Advances, 2020, 6, eaax1464.	10.3	139
31	A bio-robotic remora disc with attachment and detachment capabilities for reversible underwater hitchhiking. , 2019, , .		4
32	A Soft Actuator with Tunable Mechanical Configurations for Object Grasping Based on Sensory Feedback. , 2019, , .		5
33	An Opposite-Bending-and-Extension Soft Robotic Manipulator for Delicate Grasping in Shallow Water. Frontiers in Robotics and AI, 2019, 6, 26.	3.2	41
34	Towards Real-Time Advancement of Underwater Visual Quality With GAN. IEEE Transactions on Industrial Electronics, 2019, 66, 9350-9359.	7.9	85
35	Understanding Fish Linear Acceleration Using an Undulatory Biorobotic Model with Soft Fluidic Elastomer Actuated Morphing Median Fins. Soft Robotics, 2018, 5, 375-388.	8.0	57
36	A Bio-inspired Soft Robotic Arm: Kinematic Modeling and Hydrodynamic Experiments. Journal of Bionic Engineering, 2018, 15, 204-219.	5.0	45

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37	A Soft Bionic Gripper with Variable Effective Length. Journal of Bionic Engineering, 2018, 15, 220-235.	5.0	97
38	A eutectic-alloy-infused soft actuator with sensing, tunable degrees of freedom, and stiffness properties. Journal of Micromechanics and Microengineering, 2018, 28, 024004.	2.6	77
39	A Variable Degree-of-Freedom and Self-Sensing Soft Bending Actuator Based on Conductive Liquid Metal and Thermoplastic Polymer Composites. , 2018, , .		3
40	A multi-body dynamics based numerical modelling tool for solving aquatic biomimetic problems. Bioinspiration and Biomimetics, 2018, 13, 056001.	2.9	24
41	A biorobotic adhesive disc for underwater hitchhiking inspired by the remora suckerfish. Science Robotics, 2017, 2, .	17.6	200
42	A Programmable Mechanical Freedom and Variable Stiffness Soft Actuator with Low Melting Point Alloy. Lecture Notes in Computer Science, 2017, , 151-161.	1.3	14
43	A survey on fabrication, control, and hydrodynamic function of biomimetic robotic fish. Science China Technological Sciences, 2017, 60, 1365-1380.	4.0	29
44	Modeling and experiments of a soft robotic gripper in amphibious environments. International Journal of Advanced Robotic Systems, 2017, 14, 172988141770714.	2.1	87
45	A Kalman filter based force-feedback control system for hydrodynamic investigation of unsteady aquatic propulsion. , 2017, , .		3
46	A Real-time and Unsupervised Advancement Scheme for Underwater Machine Vision. , 2017, , .		3
47	Quantitative hydrodynamic investigation of fish caudal fin cupping motion using a bio-robotic model. , 2016, , .		3
48	Design, fabrication and kinematic modeling of a 3D-motion soft robotic arm. , 2016, , .		20
49	Universal soft pneumatic robotic gripper with variable effective length. , 2016, , .		121
50	Fiber-reinforced soft robotic anthropomorphic finger. , 2016, , .		6
51	Investigation of Fish Caudal Fin Locomotion Using a Bio-Inspired Robotic Model. International Journal of Advanced Robotic Systems, 2016, 13, 87.	2.1	17
52	Hydrodynamics of a robotic fish tail: effects of the caudal peduncle, fin ray motions and the flow speed. Bioinspiration and Biomimetics, 2016, 11, 016008.	2.9	43
53	Structure, biomimetics, and fluid dynamics of fish skin surfaces. Physical Review Fluids, 2016, 1, .	2.5	73
54	Hydrodynamic function of biomimetic shark skin: effect of denticle pattern and spacing. Bioinspiration and Biomimetics, 2015, 10, 066010.	2.9	68

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55	Hydrodynamic function of a robotic fish caudal fin: Effect of kinematics and flow speed. , 2015, , .		0
56	Hydrodynamics of C-Start Escape Responses of Fish as Studied with Simple Physical Models. Integrative and Comparative Biology, 2015, 55, 728-739.	2.0	43
57	Biomimetic shark skin: design, fabrication and hydrodynamic function. Journal of Experimental Biology, 2014, 217, 1656-1666.	1.7	340
58	A Stiffness-Adjusting Method to Improve Thrust Efficiency of a Two-Joint Robotic Fish. Advances in Mechanical Engineering, 2014, 6, 537905.	1.6	3
59	Hydrodynamic performance of a biomimetic robotic swimmer actuated by ionic polymerâ€"metal composite. Smart Materials and Structures, 2013, 22, 075035.	3.5	67
60	A novel method for investigating the kinematic effect on the hydrodynamics of robotic fish. , 2013, , .		1
61	Quantitative Thrust Efficiency of a Self-Propulsive Robotic Fish: Experimental Method and Hydrodynamic Investigation. IEEE/ASME Transactions on Mechatronics, 2013, 18, 1027-1038.	5.8	96
62	Understanding undulatory locomotion in fishes using an inertia-compensated flapping foil robotic device. Bioinspiration and Biomimetics, 2013, 8, 046013.	2.9	54
63	Modelling and Fuzzy Control of an Efficient Swimming Ionic Polymer-Metal Composite Actuated Robot. International Journal of Advanced Robotic Systems, 2013, 10, 350.	2.1	21
64	Hybrid undulatory kinematics of a robotic Mackerel (Scomber scombrus): Theoretical modeling and experimental investigation. Science China Technological Sciences, 2012, 55, 2941-2952.	4.0	18
65	Novel Method for the Modeling and Control Investigation of Efficient Swimming for Robotic Fish. IEEE Transactions on Industrial Electronics, 2012, 59, 3176-3188.	7.9	78
66	A novel method based on a force-feedback technique for the hydrodynamic investigation of kinematic effects on robotic fish. , 2011, , .		5
67	Development of a twoâ€joint robotic fish for realâ€world exploration. Journal of Field Robotics, 2011, 28, 70-79.	6.0	102
68	A novel method for simultaneous measurement of internal and external hydrodynamic force of self-propelled robotic fish. , 2010, , .		0
69	Conceptual design and recovery stroke mode of a mechanical pectoral fin. , 2007, , .		0