Zheng Wang

List of Publications by Year
in descending order

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95 papers	4,716 citations	186265 28 h-index	118850 62 g-index
96 all docs	96 docs citations	96 times ranked	3747 citing authors

#	Article	IF	Citations
1	Soft robotic glove for combined assistance and at-home rehabilitation. Robotics and Autonomous Systems, 2015, 73, 135-143.	5.1	1,168
2	Modeling of Soft Fiber-Reinforced Bending Actuators. IEEE Transactions on Robotics, 2015, 31, 778-789.	10.3	688
3	Towards a soft pneumatic glove for hand rehabilitation. , 2013, , .		336
4	A Soft-Robotic Gripper With Enhanced Object Adaptation and Grasping Reliability. IEEE Robotics and Automation Letters, 2017, 2, 2287-2293.	5.1	190
5	Interaction Forces of Soft Fiber Reinforced Bending Actuators. IEEE/ASME Transactions on Mechatronics, 2017, 22, 717-727.	5.8	130
6	Robot-Assisted Endoscopic Submucosal Dissection Is Effective in Treating Patients With Early-Stage Gastric Neoplasia. Clinical Gastroenterology and Hepatology, 2012, 10, 1117-1121.	4.4	117
7	BCL-13: A 13-DOF Soft Robotic Hand for Dexterous Grasping and In-Hand Manipulation. IEEE Robotics and Automation Letters, 2018, 3, 3379-3386.	5.1	105
8	Novel Variable-Stiffness Robotic Fingers with Built-In Position Feedback. Soft Robotics, 2017, 4, 338-352.	8.0	100
9	An HMM approach to realistic haptic human-robot interaction. , 2009, , .		98
10	A Soft-Robotic Approach to Anthropomorphic Robotic Hand Dexterity. IEEE Access, 2019, 7, 101483-101495.	4.2	78
11	Fiber-Reinforced Origamic Robotic Actuator. Soft Robotics, 2018, 5, 81-92.	8.0	65
12	Feasibility of full-thickness gastric resection using master and slave transluminal endoscopic robot and closure by overstitch: a preclinical study. Surgical Endoscopy and Other Interventional Techniques, 2014, 28, 319-324.	2.4	64
13	Effects of metformin, acarbose, and sitagliptin monotherapy on gut microbiota in Zucker diabetic fatty rats. BMJ Open Diabetes Research and Care, 2019, 7, e000717.	2.8	64
14	Endoscopic submucosal dissection of gastric lesions by using a master and slave transluminal endoscopic robot: an animal survival study. Endoscopy, 2012, 44, 690-694.	1.8	62
15	Optical Modeling of Sea Salt Aerosols: The Effects of Nonsphericity and Inhomogeneity. Journal of Geophysical Research D: Atmospheres, 2018, 123, 543-558.	3.3	62
16	A soft stretchable bending sensor and data glove applications. Robotics and Biomimetics, 2016, 3, 22.	1.7	61
17	Elongation Modeling and Compensation for the Flexible Tendon--Sheath System. IEEE/ASME Transactions on Mechatronics, 2014, 19, 1243-1250.	5.8	59
18	Adaptive Variable Stiffness Particle Phalange for Robust and Durable Robotic Grasping. Soft Robotics, 2020, 7, 743-757.	8.0	57

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19	Customizable Three-Dimensional-Printed Origami Soft Robotic Joint With Effective Behavior Shaping for Safe Interactions. IEEE Transactions on Robotics, 2019, 35, 114-123.	10.3	56
20	A Wearable Detector for Simultaneous Finger Joint Motion Measurement. IEEE Transactions on Biomedical Circuits and Systems, 2018, 12, 644-654.	4.0	45
21	An Underwater Robotic Manipulator with Soft Bladders and Compact Depth-Independent Actuation. Soft Robotics, 2020, 7, 535-549.	8.0	43
22	Haptic feedback and control of a flexible surgical endoscopic robot. Computer Methods and Programs in Biomedicine, 2013, 112, 260-271.	4.7	42
23	A Biomimetic Underwater Soft Robot Inspired by Cephalopod Mollusc. IEEE Robotics and Automation Letters, 2017, 2, 2217-2223.	5.1	40
24	A soft robotic approach to robust and dexterous grasping. , 2018, , .		40
25	Mechanical and electrical numerical analysis of soft liquid-embedded deformation sensors analysis. Extreme Mechanics Letters, 2014, 1, 42-46.	4.1	38
26	Soft robotics for engineers. HKIE Transactions, 2015, 22, 88-97.	0.1	36
27	A Proprioceptive Bellows (PB) Actuator With Position Feedback and Force Estimation. IEEE Robotics and Automation Letters, 2020, 5, 1867-1874.	5.1	36
28	Comparison of people's responses to real and virtual handshakes within a virtual environment. Brain Research Bulletin, 2011, 85, 276-282.	3.0	35
29	Evolution of Reproductive Morphology in Leaf Endophytes. PLoS ONE, 2009, 4, e4246.	2.5	31
30	Handshake: Realistic Human-Robot Interaction in Haptic Enhanced Virtual Reality. Presence: Teleoperators and Virtual Environments, 2011, 20, 371-392.	0.6	31
31	Otariidae-Inspired Soft-Robotic Supernumerary Flippers by Fabric Kirigami and Origami. IEEE/ASME Transactions on Mechatronics, 2021, 26, 2747-2757.	5.8	31
32	Soft-Actuator-Based Robotic Joint for Safe and Forceful Interaction With Controllable Impact Response. IEEE Robotics and Automation Letters, 2018, 3, 3505-3512.	5.1	29
33	Modeling tendon-sheath mechanism with flexible configurations for robot control. Robotica, 2013, 31, 1131-1142.	1.9	28
34	Modeling and motion compensation of a bidirectional tendon-sheath actuated system for robotic endoscopic surgery. Computer Methods and Programs in Biomedicine, 2015, 119, 77-87.	4.7	28
35	A Compact Dental Robotic System Using Soft Bracing Technique. IEEE Robotics and Automation Letters, 2019, 4, 1271-1278.	5.1	27
36	Mechanoreception for Soft Robots via Intuitive Body Cues. Soft Robotics, 2020, 7, 198-217.	8.0	27

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37	A High-Payload Proprioceptive Hybrid Robotic Gripper With Soft Origamic Actuators. IEEE Robotics and Automation Letters, 2020, 5, 3003-3010.	5.1	27
38	A Three-Dimensional-Printed Soft Robotic Glove With Enhanced Ergonomics and Force Capability. IEEE Robotics and Automation Letters, 2018, 3, 242-248.	5.1	26
39	Design and Modeling of an Extensible Soft Robotic Arm. IEEE Robotics and Automation Letters, 2019, 4, 4208-4215.	5.1	26
40	Secure state estimation for systems under mixed cyber-attacks: Security and performance analysis. Information Sciences, 2021, 546, 943-960.	6.9	26
41	DoraPicker: An autonomous picking system for general objects. , 2016, , .		24
42	A Compact Soft Robotic Wrist Brace With Origami Actuators. Frontiers in Robotics and AI, 2021, 8, 614623.	3.2	22
43	How the Inhomogeneity of Wet Sea Salt Aerosols Affects Direct Radiative Forcing. Geophysical Research Letters, 2019, 46, 1805-1813.	4.0	21
44	A robotic manipulator design with novel soft actuators. , 2017, , .		20
45	A Smart Robotic Walker With Intelligent Close-Proximity Interaction Capabilities for Elderly Mobility Safety. Frontiers in Neurorobotics, 2020, 14, 575889.	2.8	20
46	Ostraciiform Underwater Robot With Segmented Caudal Fin. IEEE Robotics and Automation Letters, 2018, 3, 2902-2909.	5.1	19
47	Fast online impedance estimation for robot control. , 2009, , .		18
48	A soft robotic glove for hand motion assistance. , 2016, , .		18
49	A soft stretchable bending sensor and data glove applications. , 2016, , .		16
50	Intuitive Control of Humanoid Soft-Robotic Hand BCL-13. , 2018, , .		15
51	A Novel Coding Architecture for LiDAR Point Cloud Sequence. IEEE Robotics and Automation Letters, 2020, 5, 5637-5644.	5.1	14
52	Enhancement of a master-slave robotic system for natural orifice transluminal endoscopic surgery. Annals of the Academy of Medicine, Singapore, 2011, 40, 223-30.	0.4	14
53	Modelling of human haptic skill: a framework and preliminary results. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2008, 41, 14761-14766.	0.4	13
54	A Grasping Component Mapping Approach for Soft Robotic End-Effector Control. , 2019, , .		13

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55	Compliant Control and Compensation for A Compact Cable-Driven Robotic Manipulator. IEEE Robotics and Automation Letters, 2020, 5, 5417-5424.	5.1	13
56	Soft Origami Optical-Sensing Actuator for Underwater Manipulation. Frontiers in Robotics and AI, 2020, 7, 616128.	3.2	13
57	A Customizable, Compact Robotic Manipulator for Assisting Multiple Dental Procedures. , 2018, , .		12
58	Untethered Multimode Fluidic Actuation: A New Approach to Soft and Compliant Robotics. Soft Robotics, 2021, 8, 71-84.	8.0	12
59	Underwater Crawling Robot With Hydraulic Soft Actuators. Frontiers in Robotics and AI, 2021, 8, 688697.	3.2	12
60	System support for automatic profiling and optimization. Operating Systems Review (ACM), 1997, 31, 15-26.	1.9	10
61	A Cephalopod-Inspired Soft-Robotic Siphon for Thrust Vectoring and Flow Rate Regulation. Soft Robotics, 2021, 8, 416-431.	8.0	10
62	A Hybrid Underwater Manipulator System With Intuitive Muscle-Level sEMG Mapping Control. IEEE Robotics and Automation Letters, 2020, 5, 3198-3205.	5.1	10
63	The future of transluminal surgery. Expert Review of Medical Devices, 2011, 8, 669-671.	2.8	9
64	Reinforcement Learning Meets Hybrid Zero Dynamics: A Case Study for RABBIT. , 2019, , .		8
65	Robotic Cane as a Soft SuperLimb for Elderly Sit-to-Stand Assistance*. , 2020, , .		8
66	Model-Based Control and External Load Estimation of an Extensible Soft Robotic Arm. Frontiers in Robotics and AI, 2020, 7, 586490.	3.2	8
67	The Next-Generation Surgical Robots. , 0, , .		7
68	A Six Degrees-of-Freedom Soft Robotic Joint With Tilt-Arranged Origami Actuator. Journal of Mechanisms and Robotics, 2022, 14, .	2.2	7
69	Vertebraic Soft Robotic Joint Design With Twisting and Antagonism. IEEE Robotics and Automation Letters, 2022, 7, 658-665.	5.1	6
70	Development of a robotic platform for natural orifice transluminal endoscopic surgery. Gastrointestinal Intervention, 2012, 1, 40-42.	0.1	5
71	A Multimodal Hydrogel Soft-Robotic Sensor for Multi-Functional Perception. Frontiers in Robotics and AI, 2021, 8, 692754.	3.2	5
72	A Rotational Tri-Fingered Gripper for Stable Adaptable Grasping. , 2018, , .		4

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73	Design of Anthropomorphic Fingers With Biomimetic Actuation Mechanism. IEEE Robotics and Automation Letters, 2019, 4, 3465-3472.	5.1	4
74	Control and Motion Scaling of A Compact Cable-driven Dental Robotic Manipulator. , 2019, , .		4
75	A Soft-Robotic Gripper for Ultra-High-Voltage Transmission Line Operations. , 2020, , .		4
76	Towards haptics enabled surgical robotic system for NOTES. , 2011, , .		3
77	Force feedback without sensor: A preliminary study on haptic modeling. , 2012, , .		3
78	An Ankle Based Soft Active Orthotic Device Powered by Pneumatic Artificial Muscle. , 2019, , .		3
79	Environmental Insulation of 3D Printable Origamic Soft Actuators. , 2019, , .		3
80	Failure Handling of Robotic Pick and Place Tasks With Multimodal Cues Under Partial Object Occlusion. Frontiers in Neurorobotics, 2021, 15, 570507.	2.8	3
81	Intent inference in shared-control teleoperation system in consideration of user behavior. Complex & Intelligent Systems, 2022, 8, 2971-2981.	6.5	3
82	Tactual Recognition of Soft Objects From Deformation Cues. IEEE Robotics and Automation Letters, 2022, 7, 96-103.	5.1	3
83	An Underwater Glider with Muscleâ€"Actuated Buoyancy Control and Caudal Fin Turning. Machines, 2022, 10, 381.	2.2	3
84	HAPTIC MODELING OF STOMACH FOR REAL-TIME PROPERTY AND FORCE ESTIMATION. Journal of Mechanics in Medicine and Biology, 2013, 13, 1350021.	0.7	2
85	Introduction to modeling of the McKibben pneumatic artificial muscle with end constraints. , 2016, , .		2
86	Analytical Solution to Global Dynamic Balance Control of the Acrobot. , 2018, , .		2
87	Social Haptic Interaction with Virtual Characters. Springer Series on Touch and Haptic Systems, 2012, , 189-214.	0.3	2
88	Global bounded consensus of general nonidentical networks with distributed time-delays. , 2015, , .		1
89	Kinematic Analysis of Soft Continuum Manipulators Based on Sparse Workspace Mapping. IEEE Robotics and Automation Letters, 2022, 7, 5055-5062.	5.1	1
90	Multi-Dimensional Proprioception and Stiffness Tuning for Soft Robotic Joints. , 2022, , .		1

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91	875 Endoscopic Submucosal Dissection Using a Computer-Controlled Master- Slave Robot. Gastrointestinal Endoscopy, 2011, 73, AB155.	1.0	0
92	Visual Servoing of Soft Robotic Arms by Binocular. Lecture Notes in Computer Science, 2019, , 130-143.	1.3	0
93	A Compact Asymmetrical Manipulator for Robotic Dentistry. , 2019, , .		0
94	A Soft Approach to the Exoskeleton Wearable Device for Temporomandibular Disorder (TMD). , 2021, , .		0
95	Editorial: Intelligence and Safety for Humanoid Robots: Design, Control, and Applications. Frontiers in Neurorobotics, 2021, 15, 808369.	2.8	0