Zheng Wang

List of Publications by Year
in descending order

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Version: 2024-02-01

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	Intent inference in shared-control teleoperation system in consideration of user behavior. Complex & Intelligent Systems, 2022, 8, 2971-2981.	6.5	3
2	Tactual Recognition of Soft Objects From Deformation Cues. IEEE Robotics and Automation Letters, 2022, 7, 96-103.	5.1	3
3	Vertebraic Soft Robotic Joint Design With Twisting and Antagonism. IEEE Robotics and Automation Letters, 2022, 7, 658-665.	5.1	6
4	Kinematic Analysis of Soft Continuum Manipulators Based on Sparse Workspace Mapping. IEEE Robotics and Automation Letters, 2022, 7, 5055-5062.	5.1	1
5	An Underwater Glider with Muscleâ€"Actuated Buoyancy Control and Caudal Fin Turning. Machines, 2022, 10, 381.	2.2	3
6	A Six Degrees-of-Freedom Soft Robotic Joint With Tilt-Arranged Origami Actuator. Journal of Mechanisms and Robotics, 2022, 14, .	2.2	7
7	Multi-Dimensional Proprioception and Stiffness Tuning for Soft Robotic Joints. , 2022, , .		1
8	A Cephalopod-Inspired Soft-Robotic Siphon for Thrust Vectoring and Flow Rate Regulation. Soft Robotics, 2021, 8, 416-431.	8.0	10
9	Untethered Multimode Fluidic Actuation: A New Approach to Soft and Compliant Robotics. Soft Robotics, 2021, 8, 71-84.	8.0	12
10	Secure state estimation for systems under mixed cyber-attacks: Security and performance analysis. Information Sciences, 2021, 546, 943-960.	6.9	26
11	Failure Handling of Robotic Pick and Place Tasks With Multimodal Cues Under Partial Object Occlusion. Frontiers in Neurorobotics, 2021, 15, 570507.	2.8	3
12	A Compact Soft Robotic Wrist Brace With Origami Actuators. Frontiers in Robotics and AI, 2021, 8, 614623.	3.2	22
13	A Soft Approach to the Exoskeleton Wearable Device for Temporomandibular Disorder (TMD). , 2021, , .		0
14	Underwater Crawling Robot With Hydraulic Soft Actuators. Frontiers in Robotics and AI, 2021, 8, 688697.	3.2	12
15	A Multimodal Hydrogel Soft-Robotic Sensor for Multi-Functional Perception. Frontiers in Robotics and AI, 2021, 8, 692754.	3.2	5
16	Otariidae-Inspired Soft-Robotic Supernumerary Flippers by Fabric Kirigami and Origami. IEEE/ASME Transactions on Mechatronics, 2021, 26, 2747-2757.	5.8	31
17	Editorial: Intelligence and Safety for Humanoid Robots: Design, Control, and Applications. Frontiers in Neurorobotics, 2021, 15, 808369.	2.8	0
18	Mechanoreception for Soft Robots via Intuitive Body Cues. Soft Robotics, 2020, 7, 198-217.	8.0	27

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19	Compliant Control and Compensation for A Compact Cable-Driven Robotic Manipulator. IEEE Robotics and Automation Letters, 2020, 5, 5417-5424.	5.1	13
20	A Novel Coding Architecture for LiDAR Point Cloud Sequence. IEEE Robotics and Automation Letters, 2020, 5, 5637-5644.	5.1	14
21	A Smart Robotic Walker With Intelligent Close-Proximity Interaction Capabilities for Elderly Mobility Safety. Frontiers in Neurorobotics, 2020, 14, 575889.	2.8	20
22	Adaptive Variable Stiffness Particle Phalange for Robust and Durable Robotic Grasping. Soft Robotics, 2020, 7, 743-757.	8.0	57
23	Robotic Cane as a Soft SuperLimb for Elderly Sit-to-Stand Assistance*. , 2020, , .		8
24	A Hybrid Underwater Manipulator System With Intuitive Muscle-Level sEMG Mapping Control. IEEE Robotics and Automation Letters, 2020, 5, 3198-3205.	5.1	10
25	A High-Payload Proprioceptive Hybrid Robotic Gripper With Soft Origamic Actuators. IEEE Robotics and Automation Letters, 2020, 5, 3003-3010.	5.1	27
26	An Underwater Robotic Manipulator with Soft Bladders and Compact Depth-Independent Actuation. Soft Robotics, 2020, 7, 535-549.	8.0	43
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	Model-Based Control and External Load Estimation of an Extensible Soft Robotic Arm. Frontiers in Robotics and AI, 2020, 7, 586490.	3.2	8
29	Soft Origami Optical-Sensing Actuator for Underwater Manipulation. Frontiers in Robotics and AI, 2020, 7, 616128.	3.2	13
30	A Soft-Robotic Gripper for Ultra-High-Voltage Transmission Line Operations. , 2020, , .		4
31	A Soft-Robotic Approach to Anthropomorphic Robotic Hand Dexterity. IEEE Access, 2019, 7, 101483-101495.	4.2	78
32	Design and Modeling of an Extensible Soft Robotic Arm. IEEE Robotics and Automation Letters, 2019, 4, 4208-4215.	5.1	26
33	Reinforcement Learning Meets Hybrid Zero Dynamics: A Case Study for RABBIT. , 2019, , .		8
34	Visual Servoing of Soft Robotic Arms by Binocular. Lecture Notes in Computer Science, 2019, , 130-143.	1.3	0
35	A Grasping Component Mapping Approach for Soft Robotic End-Effector Control. , 2019, , .		13
36	Design of Anthropomorphic Fingers With Biomimetic Actuation Mechanism. IEEE Robotics and Automation Letters, 2019, 4, 3465-3472.	5.1	4

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37	Control and Motion Scaling of A Compact Cable-driven Dental Robotic Manipulator. , 2019, , .		4
38	A Compact Dental Robotic System Using Soft Bracing Technique. IEEE Robotics and Automation Letters, 2019, 4, 1271-1278.	5.1	27
39	How the Inhomogeneity of Wet Sea Salt Aerosols Affects Direct Radiative Forcing. Geophysical Research Letters, 2019, 46, 1805-1813.	4.0	21
40	A Compact Asymmetrical Manipulator for Robotic Dentistry. , 2019, , .		0
41	An Ankle Based Soft Active Orthotic Device Powered by Pneumatic Artificial Muscle. , 2019, , .		3
42	Environmental Insulation of 3D Printable Origamic Soft Actuators. , 2019, , .		3
43	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
44	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
45	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
46	A Wearable Detector for Simultaneous Finger Joint Motion Measurement. IEEE Transactions on Biomedical Circuits and Systems, 2018, 12, 644-654.	4.0	45
47	Fiber-Reinforced Origamic Robotic Actuator. Soft Robotics, 2018, 5, 81-92.	8.0	65
48	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
49	Intuitive Control of Humanoid Soft-Robotic Hand BCL-13. , 2018, , .		15
50	A Rotational Tri-Fingered Gripper for Stable Adaptable Grasping. , 2018, , .		4
51	Analytical Solution to Global Dynamic Balance Control of the Acrobot. , 2018, , .		2
52	A Customizable, Compact Robotic Manipulator for Assisting Multiple Dental Procedures. , 2018, , .		12
53	Ostraciiform Underwater Robot With Segmented Caudal Fin. IEEE Robotics and Automation Letters, 2018, 3, 2902-2909.	5.1	19
54	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

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55	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
56	A soft robotic approach to robust and dexterous grasping. , 2018, , .		40
57	A Soft-Robotic Gripper With Enhanced Object Adaptation and Grasping Reliability. IEEE Robotics and Automation Letters, 2017, 2, 2287-2293.	5.1	190
58	Novel Variable-Stiffness Robotic Fingers with Built-In Position Feedback. Soft Robotics, 2017, 4, 338-352.	8.0	100
59	Interaction Forces of Soft Fiber Reinforced Bending Actuators. IEEE/ASME Transactions on Mechatronics, 2017, 22, 717-727.	5.8	130
60	A robotic manipulator design with novel soft actuators. , 2017, , .		20
61	A Biomimetic Underwater Soft Robot Inspired by Cephalopod Mollusc. IEEE Robotics and Automation Letters, 2017, 2, 2217-2223.	5.1	40
62	Introduction to modeling of the McKibben pneumatic artificial muscle with end constraints. , 2016, , .		2
63	DoraPicker: An autonomous picking system for general objects. , 2016, , .		24
64	A soft stretchable bending sensor and data glove applications. , 2016, , .		16
65	A soft robotic glove for hand motion assistance. , 2016, , .		18
66	A soft stretchable bending sensor and data glove applications. Robotics and Biomimetics, 2016, 3, 22.	1.7	61
67	Modeling of Soft Fiber-Reinforced Bending Actuators. IEEE Transactions on Robotics, 2015, 31, 778-789.	10.3	688
68	Global bounded consensus of general nonidentical networks with distributed time-delays. , 2015, , .		1
69	Soft robotics for engineers. HKIE Transactions, 2015, 22, 88-97.	0.1	36
70	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
71	Soft robotic glove for combined assistance and at-home rehabilitation. Robotics and Autonomous Systems, 2015, 73, 135-143.	5.1	1,168
72	Mechanical and electrical numerical analysis of soft liquid-embedded deformation sensors analysis. Extreme Mechanics Letters, 2014, 1, 42-46.	4.1	38

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73	Elongation Modeling and Compensation for the Flexible Tendon--Sheath System. IEEE/ASME Transactions on Mechatronics, 2014, 19, 1243-1250.	5.8	59
74	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
75	HAPTIC MODELING OF STOMACH FOR REAL-TIME PROPERTY AND FORCE ESTIMATION. Journal of Mechanics in Medicine and Biology, 2013, 13, 1350021.	0.7	2
76	Haptic feedback and control of a flexible surgical endoscopic robot. Computer Methods and Programs in Biomedicine, 2013, 112, 260-271.	4.7	42
77	Modeling tendon-sheath mechanism with flexible configurations for robot control. Robotica, 2013, 31, 1131-1142.	1.9	28
78	Towards a soft pneumatic glove for hand rehabilitation. , 2013, , .		336
79	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
80	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
81	Force feedback without sensor: A preliminary study on haptic modeling. , 2012, , .		3
82	Development of a robotic platform for natural orifice transluminal endoscopic surgery. Gastrointestinal Intervention, 2012, 1, 40-42.	0.1	5
83	Social Haptic Interaction with Virtual Characters. Springer Series on Touch and Haptic Systems, 2012, , 189-214.	0.3	2
84	Towards haptics enabled surgical robotic system for NOTES. , 2011, , .		3
85	875 Endoscopic Submucosal Dissection Using a Computer-Controlled Master- Slave Robot. Gastrointestinal Endoscopy, 2011, 73, AB155.	1.0	0
86	Comparison of people's responses to real and virtual handshakes within a virtual environment. Brain Research Bulletin, 2011, 85, 276-282.	3.0	35
87	Handshake: Realistic Human-Robot Interaction in Haptic Enhanced Virtual Reality. Presence: Teleoperators and Virtual Environments, 2011, 20, 371-392.	0.6	31
88	The future of transluminal surgery. Expert Review of Medical Devices, 2011, 8, 669-671.	2.8	9
89	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
90	Evolution of Reproductive Morphology in Leaf Endophytes. PLoS ONE, 2009, 4, e4246.	2.5	31

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91	An HMM approach to realistic haptic human-robot interaction. , 2009, , .		98
92	Fast online impedance estimation for robot control. , 2009, , .		18
93	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
94	System support for automatic profiling and optimization. Operating Systems Review (ACM), 1997, 31, 15-26.	1.9	10
95	The Next-Generation Surgical Robots. , 0, , .		7