Yonghua Chen

List of Publications by Year
in descending order

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76 papers	2,601 citations	279798 23 h-index	233421 45 g-index
76 all docs	76 docs citations	76 times ranked	2195 citing authors

#	Article	IF	Citations
1	Untethered-Bioinspired Quadrupedal Robot Based on Double-Chamber Pre-charged Pneumatic Soft Actuators with Highly Flexible Trunk. Soft Robotics, 2021, 8, 97-108.	8.0	15
2	A Dual-Mode Actuator for Soft Robotic Hand. IEEE Robotics and Automation Letters, 2021, 6, 1144-1151.	5.1	17
3	A Novel Tendon-Driven Soft Actuator with Self-Pumping Property. Soft Robotics, 2020, 7, 130-139.	8.0	29
4	Design and Automatic Fabrication of Novel Bio-Inspired Soft Smart Robotic Hands. IEEE Access, 2020, 8, 155912-155925.	4.2	14
5	A Variable Stiffness Soft Continuum Robot Based on Pre-charged Air, Particle Jamming, and Origami. , 2020, , .		11
6	Adaptive Variable Stiffness Particle Phalange for Robust and Durable Robotic Grasping. Soft Robotics, 2020, 7, 743-757.	8.0	57
7	A Proprioceptive Bellows (PB) Actuator With Position Feedback and Force Estimation. IEEE Robotics and Automation Letters, 2020, 5, 1867-1874.	5.1	36
8	50 Benchmarks for Anthropomorphic Hand Function-based Dexterity Classification and Kinematics-based Hand Design. , 2020, , .		4
9	A Soft-Robotic Approach to Anthropomorphic Robotic Hand Dexterity. IEEE Access, 2019, 7, 101483-101495.	4.2	78
10	Small-Beads Transmission and Its Application to Robot Joints. IEEE/ASME Transactions on Mechatronics, 2019, 24, 2282-2292.	5.8	3
11	A Grasping Component Mapping Approach for Soft Robotic End-Effector Control. , 2019, , .		13
12	Driving Mechanisms, Motion, and Mechanics of Screw Drive In-Pipe Robots: A Review. Applied Sciences (Switzerland), 2019, 9, 2514.	2.5	19
13	Bio-inspired robotic dog paddling: kinematic and hydro-dynamic analysis. Bioinspiration and Biomimetics, 2019, 14, 066008.	2.9	21
14	Pre-Charged Pneumatic Soft Gripper With Closed-Loop Control. IEEE Robotics and Automation Letters, 2019, 4, 1402-1408.	5.1	48
15	When joggers meet robots: the past, present, and future of research on humanoid robots. Bio-Design and Manufacturing, 2019, 2, 108-118.	7.7	13
16	Soft Robotic Grippers Based on Particle Transmission. IEEE/ASME Transactions on Mechatronics, 2019, 24, 969-978.	5.8	42
17	Fabrication and Dynamic Modeling of Bidirectional Bending Soft Actuator Integrated with Optical Waveguide Curvature Sensor. Soft Robotics, 2019, 6, 495-506.	8.0	73
18	A variable stiffness gripper based on differential drive particle jamming. Bioinspiration and Biomimetics, 2019, 14, 036009.	2.9	54

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19	Principles and methods for stiffness modulation in soft robot design and development. Bio-Design and Manufacturing, 2018, 1, 14-25.	7.7	78
20	Controllable and reversible tuning of material rigidity for robot applications. Materials Today, 2018, 21, 563-576.	14.2	158
21	Inerter-based semi-active suspensions with low-order mechanical admittance via network synthesis. Transactions of the Institute of Measurement and Control, 2018, 40, 4233-4245.	1.7	22
22	Innovative Design of Embedded Pressure and Position Sensors for Soft Actuators. IEEE Robotics and Automation Letters, 2018, 3, 656-663.	5.1	52
23	Achievable Dynamic Response for Vehicle Suspensions with Acceleration Measurements. , 2018, , .		2
24	Passive and Active Particle Damping in Soft Robotic Actuators. , 2018, , .		9
25	Precharged Pneumatic Soft Actuators and Their Applications to Untethered Soft Robots. Soft Robotics, 2018, 5, 567-575.	8.0	64
26	Passive Particle Jamming and Its Stiffening of Soft Robotic Grippers. IEEE Transactions on Robotics, 2017, 33, 446-455.	10.3	227
27	Bioinspired Robotic Fingers Based on Pneumatic Actuator and 3D Printing of Smart Material. Soft Robotics, 2017, 4, 147-162.	8.0	176
28	Design, analysis and innovation in variable radius active screw in-pipe drive mechanisms. International Journal of Advanced Robotic Systems, 2017, 14, 172988141770356.	2.1	8
29	Novel Variable-Stiffness Robotic Fingers with Built-In Position Feedback. Soft Robotics, 2017, 4, 338-352.	8.0	100
30	Design and Analysis of an Active Helical Drive Downhole Tractor. Chinese Journal of Mechanical Engineering (English Edition), 2017, 30, 428-437.	3.7	6
31	3D printing of smart materials for robotics with variable stiffness and position feedback. , 2017, , .		14
32	A robotic manipulator design with novel soft actuators. , 2017, , .		20
33	Physical Rigging for Physical Models and Posable Joint Designs Based on Additive Manufacturing Technology. Procedia Manufacturing, 2017, 11, 2235-2242.	1.9	5
34	Stiffening of soft robotic actuators â€" Jamming approaches. , 2017, , .		4
35	When joggers meet robots: A preliminary study on foot strike patterns. , 2017, , .		1
36	Novel Design and Three-Dimensional Printing of Variable Stiffness Robotic Grippers. Journal of Mechanisms and Robotics, 2016, 8, .	2.2	54

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37	A Novel, Variable Stiffness Robotic Gripper Based on Integrated Soft Actuating and Particle Jamming. Soft Robotics, 2016, 3, 134-143.	8.0	247
38	Novel design and 3D printing of variable stiffness robotic fingers based on shape memory polymer. , 2016, , .		24
39	3D printing of variable stiffness hyper-redundant robotic arm. , 2016, , .		25
40	Simulation of a robot machining system based on heterogeneous-resolution representation. Computer-Aided Design and Applications, 2016, 13, 77-85.	0.6	2
41	Novel Design and 3-D Printing of Nonassembly Controllable Pneumatic Robots. IEEE/ASME Transactions on Mechatronics, 2016, 21, 649-659.	5.8	27
42	3D printing of shape memory polymer for functional part fabrication. International Journal of Advanced Manufacturing Technology, 2016, 84, 2079-2095.	3.0	215
43	Topology optimization for manufacturability based on the visibility map. Computer-Aided Design and Applications, 2016, 13, 86-94.	0.6	17
44	Development of a novel in-pipe walking robot. , 2015, , .		8
45	A simple and novel helical drive in-pipe robot. Robotica, 2015, 33, 920-932.	1.9	16
46	An intelligent search strategy based on leadership, foraging efficiency and threshold response. , 2014, , .		0
47	Optimized inchworm motion planning for a novel in-pipe robot. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, 2014, 228, 1248-1258.	2.1	16
48	A helical drive in-pipe robot based on compound planetary gearing. Advanced Robotics, 2014, 28, 1165-1175.	1.8	14
49	RP part surface quality versus build orientation: when the layers are getting thinner. International Journal of Advanced Manufacturing Technology, 2013, 67, 377-385.	3.0	14
50	Robot machining: recent development and future research issues. International Journal of Advanced Manufacturing Technology, 2013, 66, 1489-1497.	3.0	216
51	Down-hole robots: Current status, challenge and innovation. , 2013, , .		5
52	Haptic simulation of bone drilling based on hybrid 3D part representation. , 2013, , .		4
53	Processability investigatation of non-assembly mechanisms for powder bed fusion process. International Journal of Advanced Manufacturing Technology, 2013, 64, 1193-1200.	3.0	13
54	Digital assembly and direct fabrication of mechanism based on selective laser melting. Rapid Prototyping Journal, 2013, 19, 166-172.	3.2	23

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55	Probing while driving for oil well surface profile measurement. , 2013, , .		0
56	Topology optimisation and customisation of a prosthetic knee joint design. International Journal of Computer Integrated Manufacturing, 2013, 26, 968-976.	4.6	9
57	A Simple and Novel Hybrid Robotic System for Robot-Assisted Femur Fracture Reduction. Advanced Robotics, 2012, 26, 83-104.	1.8	24
58	Performance evaluation of Particle Swarm Optimization and Solid Isotropic Material with Penalization in topology optimization. , 2012, , .		2
59	Study on virtual coordinate measuring machine based on augmented virtuality. , 2012, , .		3
60	A haptic-based part decomposition method for multi-material product design. International Journal of Computer Integrated Manufacturing, 2011, 24, 405-415.	4.6	0
61	Modeling of one-direction bendable articulated needle. , 2011, , .		0
62	Minimise joint clearance in rapid fabrication of non-assembly mechanisms. International Journal of Computer Integrated Manufacturing, 2011, 24, 726-734.	4.6	21
63	Joint analysis in rapid fabrication of nonâ€assembly mechanisms. Rapid Prototyping Journal, 2011, 17, 408-417.	3.2	43
64	Selection of Build Orientation in FDM with Allowed Maximum Tensile Strain. , 2010, , .		0
65	Design and Rapid Fabrication of Non-assembly Mechanisms. , 2010, , .		8
66	Topology Optimization of a Prosthetic Knee Joint Component. , 2010, , .		3
67	Haptic-aided robot path planning based on virtual tele-operation. Robotics and Computer-Integrated Manufacturing, 2009, 25, 792-803.	9.9	24
68	Neural network based force modeling for haptic virtual machining simulation. Virtual Environments, Human-Computer Interfaces and Measurements Systems, 2009 VECIMS '09 IEEE International Conference on, 2009, , .	0.0	1
69	Control simulation of a six DOF parallel-serial robot for femur fracture reduction. , 2009, , .		4
70	Development of a six degree of freedom (DOF) hybrid robot for femur shaft fracture reduction. , 2009, , .		4
71	Modeling of flexible needle for haptic insertion simulation. , 2008, , .		2
72	Haptic simulation of flexible needle insertion. , 2007, , .		2

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73	Magnetic force aided compliant needle navigation and needle performance analysis. , 2007, , .		7
74	Accessibility Analysis for CMM Inspection Planning Using Haptic Device. , 2006, , .		4
75	Haptic Aided Soft-touch Multi-material Product Design. , 2006, , .		1
76	A Haptic Virtual Turning Operation System. , 2006, , .		6