Yonghua Chen

List of Publications by Year
in descending order

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	A Novel, Variable Stiffness Robotic Gripper Based on Integrated Soft Actuating and Particle Jamming. Soft Robotics, 2016, 3, 134-143.	8.0	247
2	Passive Particle Jamming and Its Stiffening of Soft Robotic Grippers. IEEE Transactions on Robotics, 2017, 33, 446-455.	10.3	227
3	Robot machining: recent development and future research issues. International Journal of Advanced Manufacturing Technology, 2013, 66, 1489-1497.	3.0	216
4	3D printing of shape memory polymer for functional part fabrication. International Journal of Advanced Manufacturing Technology, 2016, 84, 2079-2095.	3.0	215
5	Bioinspired Robotic Fingers Based on Pneumatic Actuator and 3D Printing of Smart Material. Soft Robotics, 2017, 4, 147-162.	8.0	176
6	Controllable and reversible tuning of material rigidity for robot applications. Materials Today, 2018, 21, 563-576.	14.2	158
7	Novel Variable-Stiffness Robotic Fingers with Built-In Position Feedback. Soft Robotics, 2017, 4, 338-352.	8.0	100
8	Principles and methods for stiffness modulation in soft robot design and development. Bio-Design and Manufacturing, 2018, 1, 14-25.	7.7	78
9	A Soft-Robotic Approach to Anthropomorphic Robotic Hand Dexterity. IEEE Access, 2019, 7, 101483-101495.	4.2	78
10	Fabrication and Dynamic Modeling of Bidirectional Bending Soft Actuator Integrated with Optical Waveguide Curvature Sensor. Soft Robotics, 2019, 6, 495-506.	8.0	73
11	Precharged Pneumatic Soft Actuators and Their Applications to Untethered Soft Robots. Soft Robotics, 2018, 5, 567-575.	8.0	64
12	Adaptive Variable Stiffness Particle Phalange for Robust and Durable Robotic Grasping. Soft Robotics, 2020, 7, 743-757.	8.0	57
13	Novel Design and Three-Dimensional Printing of Variable Stiffness Robotic Grippers. Journal of Mechanisms and Robotics, 2016, 8, .	2.2	54
14	A variable stiffness gripper based on differential drive particle jamming. Bioinspiration and Biomimetics, 2019, 14, 036009.	2.9	54
15	Innovative Design of Embedded Pressure and Position Sensors for Soft Actuators. IEEE Robotics and Automation Letters, 2018, 3, 656-663.	5.1	52
16	Pre-Charged Pneumatic Soft Gripper With Closed-Loop Control. IEEE Robotics and Automation Letters, 2019, 4, 1402-1408.	5.1	48
17	Joint analysis in rapid fabrication of nonâ€assembly mechanisms. Rapid Prototyping Journal, 2011, 17, 408-417.	3.2	43
18	Soft Robotic Grippers Based on Particle Transmission. IEEE/ASME Transactions on Mechatronics, 2019, 24, 969-978.	5.8	42

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19	A Proprioceptive Bellows (PB) Actuator With Position Feedback and Force Estimation. IEEE Robotics and Automation Letters, 2020, 5, 1867-1874.	5.1	36
20	A Novel Tendon-Driven Soft Actuator with Self-Pumping Property. Soft Robotics, 2020, 7, 130-139.	8.0	29
21	Novel Design and 3-D Printing of Nonassembly Controllable Pneumatic Robots. IEEE/ASME Transactions on Mechatronics, 2016, 21, 649-659.	5.8	27
22	3D printing of variable stiffness hyper-redundant robotic arm. , 2016, , .		25
23	Haptic-aided robot path planning based on virtual tele-operation. Robotics and Computer-Integrated Manufacturing, 2009, 25, 792-803.	9.9	24
24	A Simple and Novel Hybrid Robotic System for Robot-Assisted Femur Fracture Reduction. Advanced Robotics, 2012, 26, 83-104.	1.8	24
25	Novel design and 3D printing of variable stiffness robotic fingers based on shape memory polymer. , 2016, , .		24
26	Digital assembly and direct fabrication of mechanism based on selective laser melting. Rapid Prototyping Journal, 2013, 19, 166-172.	3.2	23
27	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
28	Minimise joint clearance in rapid fabrication of non-assembly mechanisms. International Journal of Computer Integrated Manufacturing, 2011, 24, 726-734.	4.6	21
29	Bio-inspired robotic dog paddling: kinematic and hydro-dynamic analysis. Bioinspiration and Biomimetics, 2019, 14, 066008.	2.9	21
30	A robotic manipulator design with novel soft actuators. , 2017, , .		20
31	Driving Mechanisms, Motion, and Mechanics of Screw Drive In-Pipe Robots: A Review. Applied Sciences (Switzerland), 2019, 9, 2514.	2.5	19
32	Topology optimization for manufacturability based on the visibility map. Computer-Aided Design and Applications, 2016, 13, 86-94.	0.6	17
33	A Dual-Mode Actuator for Soft Robotic Hand. IEEE Robotics and Automation Letters, 2021, 6, 1144-1151.	5.1	17
34	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
35	A simple and novel helical drive in-pipe robot. Robotica, 2015, 33, 920-932.	1.9	16
36	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

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37	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
38	A helical drive in-pipe robot based on compound planetary gearing. Advanced Robotics, 2014, 28, 1165-1175.	1.8	14
39	3D printing of smart materials for robotics with variable stiffness and position feedback. , 2017, , .		14
40	Design and Automatic Fabrication of Novel Bio-Inspired Soft Smart Robotic Hands. IEEE Access, 2020, 8, 155912-155925.	4.2	14
41	Processability investigatation of non-assembly mechanisms for powder bed fusion process. International Journal of Advanced Manufacturing Technology, 2013, 64, 1193-1200.	3.0	13
42	A Grasping Component Mapping Approach for Soft Robotic End-Effector Control. , 2019, , .		13
43	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
44	A Variable Stiffness Soft Continuum Robot Based on Pre-charged Air, Particle Jamming, and Origami. , 2020, , .		11
45	Topology optimisation and customisation of a prosthetic knee joint design. International Journal of Computer Integrated Manufacturing, 2013, 26, 968-976.	4.6	9
46	Passive and Active Particle Damping in Soft Robotic Actuators. , 2018, , .		9
47	Design and Rapid Fabrication of Non-assembly Mechanisms. , 2010, , .		8
48	Development of a novel in-pipe walking robot. , 2015, , .		8
49	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
50	Magnetic force aided compliant needle navigation and needle performance analysis. , 2007, , .		7
51	A Haptic Virtual Turning Operation System. , 2006, , .		6
52	Design and Analysis of an Active Helical Drive Downhole Tractor. Chinese Journal of Mechanical Engineering (English Edition), 2017, 30, 428-437.	3.7	6
53	Down-hole robots: Current status, challenge and innovation. , 2013, , .		5
54	Physical Rigging for Physical Models and Posable Joint Designs Based on Additive Manufacturing Technology. Procedia Manufacturing, 2017, 11, 2235-2242.	1.9	5

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55	Accessibility Analysis for CMM Inspection Planning Using Haptic Device. , 2006, , .		4
56	Control simulation of a six DOF parallel-serial robot for femur fracture reduction. , 2009, , .		4
57	Development of a six degree of freedom (DOF) hybrid robot for femur shaft fracture reduction. , 2009, , .		4
58	Haptic simulation of bone drilling based on hybrid 3D part representation. , 2013, , .		4
59	Stiffening of soft robotic actuators â€" Jamming approaches. , 2017, , .		4
60	50 Benchmarks for Anthropomorphic Hand Function-based Dexterity Classification and Kinematics-based Hand Design. , 2020, , .		4
61	Topology Optimization of a Prosthetic Knee Joint Component. , 2010, , .		3
62	Study on virtual coordinate measuring machine based on augmented virtuality. , 2012, , .		3
63	Small-Beads Transmission and Its Application to Robot Joints. IEEE/ASME Transactions on Mechatronics, 2019, 24, 2282-2292.	5.8	3
64	Haptic simulation of flexible needle insertion. , 2007, , .		2
65	Modeling of flexible needle for haptic insertion simulation. , 2008, , .		2
66	Performance evaluation of Particle Swarm Optimization and Solid Isotropic Material with Penalization in topology optimization. , 2012, , .		2
67	Simulation of a robot machining system based on heterogeneous-resolution representation. Computer-Aided Design and Applications, 2016, 13, 77-85.	0.6	2
68	Achievable Dynamic Response for Vehicle Suspensions with Acceleration Measurements. , 2018, , .		2
69	Haptic Aided Soft-touch Multi-material Product Design. , 2006, , .		1
70	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
71	When joggers meet robots: A preliminary study on foot strike patterns. , 2017, , .		1
72	Selection of Build Orientation in FDM with Allowed Maximum Tensile Strain. , 2010, , .		0

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73	A haptic-based part decomposition method for multi-material product design. International Journal of Computer Integrated Manufacturing, 2011, 24, 405-415.	4.6	0
74	Modeling of one-direction bendable articulated needle. , 2011, , .		0
75	Probing while driving for oil well surface profile measurement. , 2013, , .		0
76	An intelligent search strategy based on leadership, foraging efficiency and threshold response. , 2014, , .		0