

Shiwu Zhang

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/1014125/publications.pdf>

Version: 2024-02-01

47
papers

1,315
citations

361413

20
h-index

361022

35
g-index

47
all docs

47
docs citations

47
times ranked

1035
citing authors

#	ARTICLE	IF	CITATIONS
1	Innovative variable stiffness and variable damping magnetorheological actuation system for robotic arm positioning. <i>Journal of Intelligent Material Systems and Structures</i> , 2023, 34, 123-137.	2.5	8
2	Bearing Fault Diagnosis of Switched Reluctance Motor in Electric Vehicle Powertrain via Multisensor Data Fusion. <i>IEEE Transactions on Industrial Informatics</i> , 2022, 18, 2452-2464.	11.3	17
3	Modeling and Motion Control of a Soft SMA Planar Actuator. <i>IEEE/ASME Transactions on Mechatronics</i> , 2022, 27, 916-927.	5.8	11
4	Real-time adaptive leg-stiffness for roll compensation via magnetorheological control in a legged robot. <i>Smart Materials and Structures</i> , 2022, 31, 045003.	3.5	6
5	Development of a magnetorheological elastomer rubber joint with fail-safe characteristics for high-speed trains. <i>Smart Materials and Structures</i> , 2022, 31, 045008.	3.5	2
6	Investigation of a seat suspension installed with compact variable stiffness and damping rotary magnetorheological dampers. <i>Mechanical Systems and Signal Processing</i> , 2022, 171, 108802.	8.0	24
7	Reprogrammable Untethered Actuator for Soft Bio-Inspired Robots. <i>Advanced Intelligent Systems</i> , 2021, 3, 2000146.	6.1	9
8	A Robot Boat Powered by Liquid Metal Engines. <i>Advanced Materials Technologies</i> , 2021, 6, .	5.8	14
9	Efficient Data Reduction at the Edge of Industrial Internet of Things for PMSM Bearing Fault Diagnosis. <i>IEEE Transactions on Instrumentation and Measurement</i> , 2021, , 1-1.	4.7	27
10	Liquid metal motor. <i>IScience</i> , 2021, 24, 101911.	4.1	27
11	Light-controlled versatile manipulation of liquid metal droplets: a gateway to future liquid robots. <i>Materials Horizons</i> , 2021, 8, 3063-3071.	12.2	27
12	Experimental Study of a Variable Stiffness Seat Suspension Installed With a Compact Rotary MR Damper. <i>Frontiers in Materials</i> , 2021, 8, .	2.4	11
13	A bionic soft tongue driven by shape memory alloy and pneumatics. <i>Bioinspiration and Biomimetics</i> , 2021, 16, .	2.9	9
14	Highly stretchable and sensitive strain sensor based on liquid metal composite for wearable sign language communication device. <i>Smart Materials and Structures</i> , 2021, 30, 115005.	3.5	11
15	A Liquid Metal Artificial Muscle. <i>Advanced Materials</i> , 2021, 33, e2103062.	21.0	82
16	Stray Flux-Based Rotation Angle Measurement for Bearing Fault Diagnosis in Variable-Speed BLDC Motors. <i>IEEE Transactions on Energy Conversion</i> , 2021, 36, 3156-3166.	5.2	9
17	Shape and Force Sensing of A Soft SMA Planar Actuator for Soft Robots. , 2021, , .		0
18	A magnetorheological elastomer rail damper for wideband attenuation of rail noise and vibration. <i>Journal of Intelligent Material Systems and Structures</i> , 2020, 31, 220-228.	2.5	16

#	ARTICLE	IF	CITATIONS
19	The variable resonance magnetorheological pendulum tuned mass damper: Mathematical modelling and seismic experimental studies. <i>Journal of Intelligent Material Systems and Structures</i> , 2020, 31, 263-276.	2.5	10
20	Programmable Digital Liquid Metal Droplets in Reconfigurable Magnetic Fields. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 37670-37679.	8.0	44
21	Development of a biomimetic scallop robot capable of jet propulsion. <i>Bioinspiration and Biomimetics</i> , 2020, 15, 036008.	2.9	11
22	Particle-Based Porous Materials for the Rapid and Spontaneous Diffusion of Liquid Metals. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 11163-11170.	8.0	17
23	Liquid metal droplet robot. <i>Applied Materials Today</i> , 2020, 19, 100597.	4.3	57
24	Modeling and Motion Control of a Liquid Metal Droplet in a Fluidic Channel. <i>IEEE/ASME Transactions on Mechatronics</i> , 2020, 25, 942-950.	5.8	18
25	Aerial Grasping with a Lightweight Manipulator Based on Multi-Objective Optimization and Visual Compensation. <i>Sensors</i> , 2019, 19, 4253.	3.8	19
26	Magnetically and Electrically Controllable Functional Liquid Metal Droplets. <i>Advanced Materials Technologies</i> , 2019, 4, 1800694.	5.8	60
27	Experimental testing and modelling of a rotary variable stiffness and damping shock absorber using magnetorheological technology. <i>Journal of Intelligent Material Systems and Structures</i> , 2019, 30, 1453-1465.	2.5	23
28	Rotation of Liquid Metal Droplets Solely Driven by the Action of Magnetic Fields. <i>Applied Sciences (Switzerland)</i> , 2019, 9, 1421.	2.5	5
29	Producing and Manipulating Functional Liquid Metal Droplets using Magnetic and Electrical Fields. , 2019, , .		1
30	A Controllable Untethered Vehicle Driven by Electrically Actuated Liquid Metal Droplets. <i>IEEE Transactions on Industrial Informatics</i> , 2019, 15, 2535-2543.	11.3	22
31	A New Generation of Magnetorheological Vehicle Suspension System With Tunable Stiffness and Damping Characteristics. <i>IEEE Transactions on Industrial Informatics</i> , 2019, 15, 4696-4708.	11.3	47
32	Design and Implementation of a Soft Robotic Arm Driven by SMA Coils. <i>IEEE Transactions on Industrial Electronics</i> , 2019, 66, 6108-6116.	7.9	95
33	On a CPG-Based Hexapod Robot: AmphiHex-II With Variable Stiffness Legs. <i>IEEE/ASME Transactions on Mechatronics</i> , 2018, 23, 542-551.	5.8	75
34	Development of magnetorheological elastomers based tuned mass damper for building protection from seismic events. <i>Journal of Intelligent Material Systems and Structures</i> , 2018, 29, 1777-1789.	2.5	37
35	A dual caudal-fin miniature robotic fish with an integrated oscillation and jet propulsive mechanism. <i>Bioinspiration and Biomimetics</i> , 2018, 13, 036007.	2.9	21
36	Design of a Bionic Scallop Robot Based on Jet Propulsion. , 2018, , .		4

#	ARTICLE	IF	CITATIONS
37	Accurately Motion Control of a Liquid Metal Droplet in One-Dimensional Fluidic Channel. , 2018, , .		1
38	Design and modeling analysis of a changeable stiffness robotic leg working with magnetorheological technology. Journal of Intelligent Material Systems and Structures, 2018, 29, 3725-3736.	2.5	7
39	Unconventional locomotion of liquid metal droplets driven by magnetic fields. Soft Matter, 2018, 14, 7113-7118.	2.7	54
40	A highly adaptive magnetorheological fluid robotic leg for efficient terrestrial locomotion. Smart Materials and Structures, 2016, 25, 095019.	3.5	12
41	Design and Control of an Agile Robotic Fish With Integrative Biomimetic Mechanisms. IEEE/ASME Transactions on Mechatronics, 2016, 21, 1846-1857.	5.8	92
42	AmphiHex-I: Locomotory Performance in Amphibious Environments With Specially Designed Transformable Flipper Legs. IEEE/ASME Transactions on Mechatronics, 2016, 21, 1720-1731.	5.8	55
43	Dynamic characteristics of planar bending actuator embedded with shape memory alloy. Mechatronics, 2015, 25, 18-26.	3.3	30
44	Gait study and pattern generation of a starfish-like soft robot with flexible rays actuated by SMAs. Journal of Bionic Engineering, 2014, 11, 400-411.	5.0	102
45	Design and Implementation of a Lightweight Bioinspired Pectoral Fin Driven by SMA. IEEE/ASME Transactions on Mechatronics, 2014, 19, 1773-1785.	5.8	43
46	A Novel Implementation of a Flexible Robotic Fin Actuated by Shape Memory Alloy. Journal of Bionic Engineering, 2012, 9, 156-165.	5.0	43
47	Development of a magnetorheological elastomer rubber joint with fail-safe characteristics for high-speed trains. Smart Materials and Structures, 0, , .	3.5	0