

Yi Sun

List of Publications by Year in descending order

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79
papers

887
citations

623734

14
h-index

552781

26
g-index

80
all docs

80
docs citations

80
times ranked

624
citing authors

#	ARTICLE	IF	CITATIONS
1	Multi-objective optimization algorithms for flow shop scheduling problem: a review and prospects. International Journal of Advanced Manufacturing Technology, 2011, 55, 723-739.	3.0	81
2	Multi-layer electromagnetic spring with tunable negative stiffness for semi-active vibration isolation. Mechanical Systems and Signal Processing, 2019, 121, 942-960.	8.0	81
3	A tunable quasi-zero stiffness isolator based on a linear electromagnetic spring. Journal of Sound and Vibration, 2020, 482, 115449.	3.9	60
4	High-Staticâ€“Low-Dynamic Stiffness Isolator With Tunable Electromagnetic Mechanism. IEEE/ASME Transactions on Mechatronics, 2020, 25, 316-326.	5.8	49
5	An Adjustable Low-Frequency Vibration Isolation Stewart Platform Based On Electromagnetic Negative Stiffness. International Journal of Mechanical Sciences, 2020, 181, 105714.	6.7	47
6	Tunable negative stiffness spring using maxwell normal stress. International Journal of Mechanical Sciences, 2021, 193, 106127.	6.7	36
7	Quantitative study on the attachment and detachment of a passive suction cup. Vacuum, 2015, 116, 13-20.	3.5	34
8	Development of continuum manipulator actuated by thin McKibben pneumatic artificial muscle. Mechatronics, 2019, 60, 56-65.	3.3	33
9	Micropipette Aspiration of Single Cells for Both Mechanical and Electrical Characterization. IEEE Transactions on Biomedical Engineering, 2019, 66, 3185-3191.	4.2	28
10	Drawbar pull of a wheel with an actively actuated lug on sandy terrain. Journal of Terramechanics, 2014, 56, 17-24.	3.1	27
11	A versatile locomotion mechanism for amphibious robots: eccentric paddle mechanism. Advanced Robotics, 2013, 27, 611-625.	1.8	24
12	Modeling Electromagnetic Force and Axial-Stiffness for an Electromagnetic Negative-Stiffness Spring Toward Vibration Isolation. IEEE Transactions on Magnetics, 2019, 55, 1-10.	2.1	22
13	A novel electromagnet-based absolute displacement sensor with approximately linear quasi-zero-stiffness. International Journal of Mechanical Sciences, 2020, 181, 105695.	6.7	22
14	Decoupled kinematic control of terrestrial locomotion for an ePaddle-based reconfigurable amphibious robot. , 2011, , .		20
15	ePaddle mechanism: Towards the development of a versatile amphibious locomotion mechanism. , 2011, , .		18
16	Towards stable and efficient legged race-walking of an ePaddle-based robot. Mechatronics, 2013, 23, 108-120.	3.3	16
17	Design of an eccentric paddle locomotion mechanism for amphibious robots. , 2010, , .		14
18	Design, testing and modelling of a tuneable GER fluid damper under shear mode. Smart Materials and Structures, 2020, 29, 085011.	3.5	13

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19	Non-reciprocating legged gait for robot with epicyclic-gear-based eccentric paddle mechanism. <i>Robotics and Autonomous Systems</i> , 2015, 68, 36-46.	5.1	12
20	Modeling the rotational paddling of an ePaddle-based amphibious robot. , 2012, , .		11
21	Optimum design of an eddy current damper considering the magnetic congregation effect. <i>Journal Physics D: Applied Physics</i> , 2020, 53, 115002.	2.8	11
22	Characteristics of normal and tangential forces acting on a single lug during translational motion in sandy soil. <i>Journal of Terramechanics</i> , 2014, 55, 47-59.	3.1	10
23	Planar legged walking of a passive-spine hexapod robot. <i>Advanced Robotics</i> , 2015, 29, 1510-1525.	1.8	10
24	Experimental Verification of the Oscillating Paddling Gait for an ePaddle-EGM Amphibious Locomotion Mechanism. <i>IEEE Robotics and Automation Letters</i> , 2017, 2, 2322-2327.	5.1	9
25	Modules Design of a Reconfigurable Multi-Legged Walking Robot. , 2006, , .		8
26	Experimental study on oscillating paddling gait of an eccentric paddle mechanism. , 2012, , .		8
27	Motion error compensation of multi-legged walking robots. <i>Chinese Journal of Mechanical Engineering (English Edition)</i> , 2012, 25, 639-646.	3.7	8
28	Paddle trajectory generation for accessing soft terrain by an ePaddle locomotion mechanism. , 2013, , .		8
29	Modeling of the oscillating-paddling gait for an ePaddle locomotion mechanism. , 2013, , .		8
30	Modeling paddle-aided stair-climbing for a mobile robot based on eccentric paddle mechanism. , 2015, , .		8
31	Development of Vibration Isolator With Controllable Stiffness Using Permanent Magnets and Coils. <i>Journal of Vibration and Acoustics, Transactions of the ASME</i> , 2019, 141, .	1.6	8
32	Shock Isolation Capability of an Electromagnetic Variable Stiffness Isolator With Bidirectional Stiffness Regulation. <i>IEEE/ASME Transactions on Mechatronics</i> , 2021, 26, 2038-2047.	5.8	8
33	Mechanical design of a compact and dexterous quadruped robot. , 2017, , .		7
34	Highly precise and efficient powder feeding system based on gravimetric feedback. <i>Powder Technology</i> , 2019, 354, 719-726.	4.2	7
35	An active hybrid control approach with the Fx-RLS adaptive algorithm for active-passive isolation structures. <i>Smart Materials and Structures</i> , 2020, 29, 105005.	3.5	7
36	Adaptive Deterministic Vibration Control of a Piezo-Actuated Activeâ€“Passive Isolation Structure. <i>Applied Sciences (Switzerland)</i> , 2021, 11, 3338.	2.5	6

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37	Reptile-Inspired Biomimetic Modeling Control Actuated by Behaviors. <i>Advanced Robotics</i> , 2009, 23, 847-864.	1.8	5
38	A Cooperative Simulated Annealing Algorithm for the Optimization of Process Planning. <i>Advanced Materials Research</i> , 2011, 181-182, 489-494.	0.3	5
39	Design and locomotion simulation of an improved eccentric paddle mechanism for amphibious robots. , 2013, , .		5
40	Development of a waterproof servo unit for amphibious robots. , 2015, , .		5
41	Design of a high-mobility multi-terrain robot based on eccentric paddle mechanism. <i>Robotics and Biomimetics</i> , 2016, 3, 8.	1.7	5
42	Design and analysis of a transformable spherical robot for multi-mode locomotion. , 2017, , .		5
43	Design and experiment of bio-inspired GER fluid damper. <i>Science China Information Sciences</i> , 2020, 63, 1.	4.3	5
44	Numerical modeling for viscoelastic sandwich smart structures bonded with piezoelectric materials. <i>Composite Structures</i> , 2021, 278, 114703.	5.8	5
45	Biological Modeling Control of a Multilegged Walking Robot. , 2006, , .		4
46	Control System of a Modular and Reconfigurable Multilegged Robot. , 2007, , .		4
47	Efficiency analysis of epicyclic gear mechanism of the improved ePaddle mechanism via virtual power. , 2013, , .		4
48	Experimental study on the oscillating paddling gait of an ePaddle mechanism with flexible configuration. <i>Advanced Robotics</i> , 0, , 1-12.	1.8	4
49	Effect of lug sinkage length to drawbar pull of a wheel with an actively actuated lug on sandy terrain. , 2014, , .		4
50	A continuous dynamic modeling approach for an omnidirectional mobile robot. <i>Advanced Robotics</i> , 2015, 29, 253-271.	1.8	4
51	Generating Vected Thrust With the Rotational Paddling Gait of an ePaddle-EGM Mechanism: Modeling and Experimental Verifications. <i>IEEE Journal of Oceanic Engineering</i> , 2017, 42, 522-531.	3.8	4
52	Piezoelectric Energy Harvesting from Suspension Structures with Piezoelectric Layers. <i>Sensors</i> , 2020, 20, 3755.	3.8	4
53	Design and analysis of a stiffness and damping regulator based on giant electrorheological fluid under multilayered squeeze mode. <i>Journal of Sound and Vibration</i> , 2022, 527, 116864.	3.9	4
54	Forward Kinematics Analysis and 3-Dimmission Gait Simulation of a MiniQuad Walking Robot. , 2007, , .		3

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55	Legged gaits planning for a novel ePaddle-based amphibious robot. , 2011, , .		3
56	Planning of Legged Race-walking Gait for an ePaddle-based Amphibious Robot. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 218-223.	0.4	3
57	Improved effective design of the eccentric paddle mechanism for amphibious robots. , 2014, , .		3
58	Toward a novel deformable robot mechanism to transition between spherical rolling and quadruped walking. , 2017, , .		3
59	Accelerating sample preparation of graded thermoelectric materials using an automatic powder feeding system. Advances in Manufacturing, 2019, 7, 278-287.	6.1	3
60	Practical Kicking Motion Generation Method for NAO. , 2019, , .		2
61	A multi-legged robot with less actuators by applying passive body segment joint. , 2012, , .		1
62	Influences of lug motion on lug-soil reaction forces in sandy soil. , 2014, , .		1
63	Characteristics of lug-soil interaction forces acting on a rotating lug in sandy soil. , 2014, , .		1
64	Influence of moving direction on normal force acting on a single lug during translational motion in sandy soil. , 2014, , .		1
65	Analysis of the non-reciprocating legged gait for a hexapod robot based on the ePaddle-EGM. Robotics and Biomimetics, 2016, 3, 9.	1.7	1
66	Irradiation test of the control system of a tracked robot for nuclear disaster response. , 2017, , .		1
67	Modelling and analysis of the passive planar rimless wheel mechanism in universal domain. , 2017, , .		1
68	Optimized non-reciprocating legged gait for an eccentric paddle mechanism. Robotics and Autonomous Systems, 2018, 103, 83-92.	5.1	1
69	The Improvement of Dropout Strategy Based on Two Evolutionary Algorithms. , 2018, , .		1
70	Design and Modeling an Elongatable Robotic Snake towards Augmented Serpentine Gait. , 2019, , .		1
71	Design, Modeling and Performance Evaluation of Mobile Robot Based on Eccentric Paddle Mechanism. Journal of Physics: Conference Series, 2021, 1802, 042018.	0.4	1
72	Modeling of Passive Dynamic Walking Behavior of the Asymmetric Spatial Rimless Wheel on Slope. Lecture Notes in Computer Science, 2021, , 482-493.	1.3	1

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73	General Particle Swarm Optimization Algorithm for Integration of Process Planning and Scheduling. Advanced Materials Research, 2010, 118-120, 409-413.	0.3	0
74	Characteristics of tangential force acting on a single lug with translational motion in sandy soil. , 2014, , .		0
75	Optimized non-reciprocating tripod gait for a hexapod robot with epicyclic-gear-based eccentric paddle mechanism. , 2015, , .		0
76	Modeling of lug-soil interaction forces acting on a single lug during rotational motion in sandy soil. , 2017, , .		0
77	Stiffness analysis and verification of one 3 - RPS parallel sensor. , 2017, , .		0
78	Design and Experimental Evaluation of a Multi-Mode Mobile Robot Based on Eccentric Paddle Mechanism. IEEE Robotics and Automation Letters, 2021, 6, 8607-8614.	5.1	0
79	STABILITY ANALYSIS AND GAIT PLANNING OF A QUADRUPED ROBOT BASED ON THE ECCENTRIC PADDLE MECHANISM. Control and Intelligent Systems, 2014, 42, .	0.3	0