

Xuping Zhang Zhang

List of Publications by Year in descending order

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471371

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all docs

77
docs citations

77
times ranked

709
citing authors

#	ARTICLE	IF	CITATIONS
1	Robotic ICSI (Intracytoplasmic Sperm Injection). IEEE Transactions on Biomedical Engineering, 2011, 58, 2102-2108.	2.5	141
2	Three-Dimensional Rotation of Mouse Embryos. IEEE Transactions on Biomedical Engineering, 2012, 59, 1049-1056.	2.5	98
3	A Tutorial Survey and Comparison of Impedance Control on Robotic Manipulation. Robotica, 2019, 37, 801-836.	1.3	84
4	Dynamic Modeling and Experimental Validation of a 3-PRR Parallel Manipulator with Flexible Intermediate Links. Journal of Intelligent and Robotic Systems: Theory and Applications, 2007, 50, 323-340.	2.0	82
5	Controlled Aspiration and Positioning of Biological Cells in a Micropipette. IEEE Transactions on Biomedical Engineering, 2012, 59, 1032-1040.	2.5	65
6	Comprehensive modeling and identification of nonlinear joint dynamics for collaborative industrial robot manipulators. Control Engineering Practice, 2020, 101, 104462.	3.2	39
7	Learning-based object detection and localization for a mobile robot manipulator in SME production. Robotics and Computer-Integrated Manufacturing, 2022, 73, 102229.	6.1	38
8	Experimental Implementation on Vibration Mode Control of a Moving 3-PRR Flexible Parallel Manipulator with Multiple PZT Transducers. JVC/Journal of Vibration and Control, 2010, 16, 2035-2054.	1.5	37
9	Dynamic modelling and analysis of V- and Z-shaped electrothermal microactuators. Microsystem Technologies, 2017, 23, 3775-3789.	1.2	36
10	Vibration control of industrial robot arms by multi-mode time-varying input shaping. Mechanism and Machine Theory, 2021, 155, 104072.	2.7	36
11	Closed-form modelling and design analysis of V- and Z-shaped electrothermal microactuators. Journal of Micromechanics and Microengineering, 2017, 27, 015023.	1.5	34
12	Computationally efficient dynamic modeling of robot manipulators with multiple flexible-links using acceleration-based discrete time transfer matrix method. Robotics and Computer-Integrated Manufacturing, 2018, 49, 181-193.	6.1	30
13	Vibration control of elastodynamic response of a 3-PRR flexible parallel manipulator using PZT transducers. Robotica, 2008, 26, 655-665.	1.3	28
14	Coupling characteristics of rigid body motion and elastic deformation of a 3-PRR parallel manipulator with flexible links. Multibody System Dynamics, 2009, 21, 167-192.	1.7	27
15	A comparison model of V- and Z-shaped electrothermal microactuators. , 2015, , .		26
16	Motion control of flexible robot manipulators via optimizing redundant configurations. Mechanism and Machine Theory, 2001, 36, 883-892.	2.7	21
17	Impedance Control of Robots: An Overview. , 2017, , .		20
18	A novel methodology for analyzing modal dynamics of multi-rotor wind turbines. Journal of Sound and Vibration, 2021, 493, 115810.	2.1	19

#	ARTICLE	IF	CITATIONS
19	Optimum time-energy-jerk trajectory planning for serial robotic manipulators by reparameterized quintic NURBS curves. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, 2021, 235, 4382-4393.	1.1	18
20	Adaptive feedforward control of a collaborative industrial robot manipulator using a novel extension of the Generalized Maxwell-Slip friction model. Mechanism and Machine Theory, 2021, 155, 104109.	2.7	18
21	Fuzzy sliding mode variable structure control of a high-speed parallel PnP robot. Mechanism and Machine Theory, 2021, 162, 104349.	2.7	18
22	MULTI-MODE VIBRATION CONTROL AND POSITION ERROR ANALYSIS OF PARALLEL MANIPULATOR WITH MULTIPLE FLEXIBLE LINKS. Transactions of the Canadian Society for Mechanical Engineering, 2010, 34, 197-213.	0.3	17
23	Automated manipulation of zebrafish embryos using an electrothermal microgripper. Microsystem Technologies, 2020, 26, 1823-1834.	1.2	17
24	A new spatial rotor beam element for modeling spatial manipulators with joint and link flexibility. Mechanism and Machine Theory, 2000, 35, 403-421.	2.7	16
25	An optical tracker based robot registration and servoing method for ultrasound guided percutaneous renal access. BioMedical Engineering OnLine, 2013, 12, 47.	1.3	15
26	Batch Transfer of Zebrafish Embryos Into Multiwell Plates. IEEE Transactions on Automation Science and Engineering, 2011, 8, 625-632.	3.4	14
27	Investigation of axial forces on dynamic properties of a flexible 3-PRR planar parallel manipulator moving with high speed. Robotica, 2010, 28, 607-619.	1.3	13
28	On critical aeroelastic modes of a tri-rotor wind turbine. International Journal of Mechanical Sciences, 2021, 204, 106525.	3.6	13
29	A Comprehensive Analytical Model and Experimental Validation of Z-shaped Electrothermal Microactuators. Mechanisms and Machine Science, 2015, , 177-187.	0.3	13
30	A hybrid numerical method for vibration analysis of linear multibody systems with flexible components. Applied Mathematical Modelling, 2022, 101, 748-771.	2.2	12
31	Vibration suppression of a 3-PRR flexible parallel manipulator using input shaping. , 2009, , .		11
32	Dynamic electro-thermal modeling of V- and Z-shaped electrothermal microactuator. , 2016, , .		10
33	Design, Fabrication, and Testing of a Novel 3D 3-Fingered Electrothermal Microgripper with Multiple Degrees of Freedom. Micromachines, 2021, 12, 444.	1.4	10
34	A Tutorial Review on Point Cloud Registrations: Principle, Classification, Comparison, and Technology Challenges. Mathematical Problems in Engineering, 2021, 2021, 1-32.	0.6	10
35	Integrating Dynamics into Design and Motion Optimization of a 3-PRR Planar Parallel Manipulator with Discrete Time Transfer Matrix Method. Mathematical Problems in Engineering, 2020, 2020, 1-23.	0.6	9
36	Macro-to-micro positioning and auto focusing for fully automated single cell microinjection. Microsystem Technologies, 2021, 27, 11-21.	1.2	9

#	ARTICLE	IF	CITATIONS
37	Dynamics Parametrization and Calibration of Flexible-Joint Collaborative Industrial Robot Manipulators. <i>Mathematical Problems in Engineering</i> , 2020, 2020, 1-13.	0.6	6
38	Study on the Effect of Elastic Deformations on Rigid Body Motions of a 3-PRR Flexible Parallel Manipulator. , 2007, , .		5
39	Automated cell manipulation: Robotic ICSI. , 2011, , .		5
40	Practical Control of a Cold Milling Machine using an Adaptive PID Controller. <i>Applied Sciences (Switzerland)</i> , 2020, 10, 2516.	1.3	5
41	Dynamic modeling and active vibration control of a 3-PRR flexible parallel manipulator with PZT transducers. , 2008, , .		4
42	A Model Compensation-Prediction Scheme for Control of Micromanipulation Systems With a Single Feedback Loop. <i>IEEE/ASME Transactions on Mechatronics</i> , 2017, 22, 1973-1982.	3.7	4
43	Theoretical modal analysis and parameter study of Z-shaped electrothermal microactuators. <i>Microsystem Technologies</i> , 2018, 24, 3149-3160.	1.2	4
44	Smooth online time-varying input shaping with fractional delay FIR filtering. <i>Control Engineering Practice</i> , 2019, 88, 21-37.	3.2	4
45	Interaction dynamics modeling and adaptive impedance control of robotic exoskeleton for adolescent idiopathic scoliosis. <i>Computers in Biology and Medicine</i> , 2022, 145, 105495.	3.9	4
46	Digital Twin with Integrated Robot-Human/Environment Interaction Dynamics for an Industrial Mobile Manipulator. , 2022, , .		4
47	Vibration Modes and Parameter Analysis of V-Shaped Electrothermal Microactuators. <i>Shock and Vibration</i> , 2018, 2018, 1-12.	0.3	3
48	Concept Design and Dynamic Modelling of a Fibre-Based Continuum Robot for Early Cancer Detection Using DT-TMM. <i>Mechanisms and Machine Science</i> , 2019, , 177-185.	0.3	3
49	Comparison of the Dynamic Performance of Planar 3-DOF Parallel Manipulators. <i>Machines</i> , 2022, 10, 233.	1.2	3
50	Theoretical Thermal-Mechanical Modelling and Experimental Validation of a Three-Dimensional (3D) Electrothermal Microgripper with Three Fingers. <i>Micromachines</i> , 2021, 12, 1512.	1.4	3
51	An active control method for vibration reduction of a single-link flexible manipulator. <i>Journal of Low Frequency Noise Vibration and Active Control</i> , 0, , 146134842210949.	1.3	3
52	Dynamic Modeling and Digital Twin of a Harmonic Drive Based Collaborative Robot Joint. , 2022, , .		3
53	Active Vibration Control of a 3-PRR Flexible Parallel Manipulator With PZT Actuators and Sensors. , 2008, , .		2
54	Effect of axial forces on lateral stiffness of a flexible 3-PRR parallel manipulator moving with high-speed. , 2008, , .		2

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55	Dynamic Modeling of Flexible Robot Manipulators: Acceleration-Based Discrete Time Transfer Matrix Method. <i>Mechanisms and Machine Science</i> , 2015, , 377-386.	0.3	2
56	Vibration Analysis of V-Shaped Beam Electrothermal Microactuators. , 2017, , .		2
57	Vibration Analysis of U-Shaped Beam Electrothermal Microactuators. , 2017, , .		2
58	Structure and Design of Microgrippers: A Survey. , 2017, , .		2
59	Experimental Study on the Life and Nonlinear Actuation Behaviors of V-shaped SU-8 Electrothermal Microactuators. , 2018, , .		2
60	Controlled positioning of biological cells inside a micropipette. , 2012, , .		1
61	Sensing and Intelligent Perception in Robotic Applications. <i>Journal of Sensors</i> , 2016, 2016, 1-1.	0.6	1
62	Experimental Testing and Performance Comparisons between V - and Z-shaped Electrothermal Microactuators. , 2018, , .		1
63	A Mechanic Model and Velocity Optimization of Cell Microinjection. , 2019, , .		1
64	A Novel Recognition Algorithm in 3D Point Clouds based for on Local Spherical Harmonics. , 2019, , .		1
65	Design and Simulation of A Novel Three-Dimensional Multi-Degree-Of-Freedom Electrothermal Microgripper. , 2020, , .		1
66	An intuitive representation and analysis of multi-rotor wind turbine whirling modes. <i>Wind Energy</i> , 2022, 25, 553-572.	1.9	1
67	Structural Vibration Control of a Moving 3-PRR Flexible Parallel Manipulator With Multiple PZT Actuators and Sensors. , 2007, , .		1
68	A Nonlinear Mechanic Model of a Zebrafish Embryo under Microinjection. , 2021, , .		1
69	A Switchable Rigid-Continuum Robot Arm: Design and Testing. , 2022, , .		1
70	Automated batch transfer of zebrafish embryos using a multi-degrees-of-freedom system. , 2011, , .		0
71	An equivalent line-beam vibration model for frequency analysis of the V-and Z-shaped electrothermal microactuators. , 2017, , .		0
72	Dynamic Modeling and Analysis of a Mobile Flexible Robot Arm. , 2018, , .		0

#	ARTICLE	IF	CITATIONS
73	Review on the Development and Applications of Vibration Isolators. , 2019, , .		0
74	A Novel Auto-Focusing Algorithm for Automated Cell Immobilization. , 2019, , .		0
75	Automated Macro-Micro Manipulation for Robotic Microinjection with Computer Vision. , 2019, , .		0
76	Control Strategy for a Developed Robotic Spine Exoskeleton. , 2020, , .		0
77	Theoretical thermal-mechanical modelling and experimental validation of a novel 3D three-fingered electrothermal microgripper. Precision Engineering, 2022, 77, 205-219.	1.8	0