

Zhen Zhang

List of Publications by Year in descending order

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52
papers

720
citations

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52
all docs

52
docs citations

52
times ranked

542
citing authors

#	ARTICLE	IF	CITATIONS
1	A Large Range Compliant Nano-Manipulator Supporting Electron Beam Lithography. Journal of Mechanical Design, Transactions of the ASME, 2022, 144, .	2.9	9
2	A Laser Scannerâ€“Stage Synchronized System Supporting the Large-Area Precision Polishing of Additive-Manufactured Metallic Surfaces. Engineering, 2021, 7, 1732-1740.	6.7	12
3	A large range compliant XY nano-manipulator with active parasitic rotation rejection. Precision Engineering, 2021, 72, 640-652.	3.4	15
4	Robust tracking with FPGA for high-speed laser galvanometer scanning. , 2021, , .		1
5	Frequency-shaped sliding mode control of piezoelectric nano-stages with hysteresis estimation. ISA Transactions, 2020, 107, 340-349.	5.7	4
6	Cross-Coupled Repetitive Control of a Compliant Nanomanipulator for Micro-Stereolithography. IEEE Access, 2020, 8, 3891-3900.	4.2	5
7	Thermodynamics analysis and rapid solidification of laser polished Inconel 718 by selective laser melting. Applied Surface Science, 2020, 511, 145423.	6.1	45
8	Hybrid laser technique for joining of polymer and titanium alloy. Journal of Laser Applications, 2019, 31, .	1.7	8
9	Tracking control of a large range 3D printed compliant nano-manipulator with enhanced anti-windup compensation. Mechanical Systems and Signal Processing, 2019, 131, 33-48.	8.0	11
10	The flow-difference feedback iteration method for aerostatic thrust bearings and its convergence characteristics. Proceedings of the Institution of Mechanical Engineers, Part J: Journal of Engineering Tribology, 2019, 233, 1743-1752.	1.8	1
11	Enhanced bond strength for micro-arc oxidation coating on magnesium alloy via laser surface microstructuring. Applied Surface Science, 2019, 478, 866-871.	6.1	29
12	A Robust Tracking of a Compliant Nanomanipulator-based Micro Stereo Lithography System. , 2019, , .		1
13	Robust Tracking of a Cost-Effective Micro-Stereolithography System Based on a Compliant Nanomanipulator. Micromachines, 2019, 10, 785.	2.9	3
14	A Spatial Design of a Large Stroke Compliant XY Nanomanipulator with Cross-Coupling Error Reduction. , 2019, , .		2
15	Large dynamic range tracking of an XY compliant nanomanipulator with cross-axis coupling reduction. Mechanical Systems and Signal Processing, 2019, 117, 757-770.	8.0	28
16	Comparison of the effect of typical patterns on friction and wear properties of chromium alloy prepared by laser surface texturing. Optics and Laser Technology, 2018, 106, 272-279.	4.6	40
17	Large Stroke Tracking of a Nanomanipulator with Anticipatory Anti-windup Compensation of Time-varying Internal Principle-based Control. , 2018, , .		0
18	Enhancement of Heat Dissipation by Laser Micro Structuring for LED Module. Polymers, 2018, 10, 886.	4.5	9

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19	Cross-Coupled Repetitive Control of an XY Compliant Nanomanipulator. , 2018, , .		2
20	An Improved Phase Detection Method for Laser Guide Systems Using Position Sensitive Detectors. , 2018, 2, 1-4.		4
21	A self-adjusting stiffness center design for large stroke compliant XY nanomanipulators. Mechanical Sciences, 2018, 9, 41-50.	1.0	7
22	Robust adaptive backstepping control for piezoelectric nano-manipulating systems. Mechanical Systems and Signal Processing, 2017, 83, 130-148.	8.0	47
23	A Large Range Flexure-Based Servo System Supporting Precision Additive Manufacturing. Engineering, 2017, 3, 708-715.	6.7	20
24	Robust repetitive control for time delay systems with application to nano manipulations. , 2017, , .		1
25	Large range tracking of an XY compliant nanomanipulator with nonlinear stiffness. , 2017, , .		0
26	Phase difference method based position detection system for linear motion orientation. , 2017, , .		1
27	A discrete-time robust anti-windup tracking approach with application to a piezoelectric nano-stage. , 2017, , .		1
28	Design of an additive manufactured XY compliant manipulator with spatial redundant constraints. , 2016, , .		6
29	A beam flexure-based nanopositioning stage supporting laser direct-write nanofabrication. Science China: Physics, Mechanics and Astronomy, 2016, 59, 1.	5.1	4
30	Sampled-data extended state observer for uncertain nonlinear systems. Control Theory and Technology, 2016, 14, 189-198.	1.6	3
31	Internal model-based tracking of a servo gantry system with frequency-varying references. IFAC-PapersOnLine, 2016, 49, 39-44.	0.9	0
32	Tracking control of nano manipulating systems: A parallel phase-optimal notch filter approach. , 2016, , .		1
33	Discrete time-varying internal model-based tracking of a servo gantry system with frequency-varying references. , 2016, , .		0
34	Robust Antiwindup Compensation for High-Precision Tracking of a Piezoelectric Nanostage. IEEE Transactions on Industrial Electronics, 2016, 63, 6460-6470.	7.9	23
35	A disturbance observer-based adaptive control approach for flexure beam nano manipulators. ISA Transactions, 2016, 60, 206-217.	5.7	29
36	High precision tracking control of a servo gantry with dynamic friction compensation. ISA Transactions, 2016, 62, 349-356.	5.7	28

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37	Cross-coupled contour tracking control with time-varying internal model of a parallel bi-axis servo gantry. , 2015, , .		0
38	Design and analysis of an <i>X&Y</i> parallel nanopositioner supporting large-stroke servomechanism. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, 2015, 229, 364-376.	2.1	37
39	Modeling and control of a novel X&Y parallel piezoelectric-actuator driven nanopositioner. ISA Transactions, 2015, 56, 145-154.	5.7	31
40	A flow-difference feedback iteration method and its application to high-speed aerostatic journal bearings. Tribology International, 2015, 84, 132-141.	5.9	26
41	Flexure-hinges guided nano-stage for precision manipulations: Design, modeling and control. International Journal of Precision Engineering and Manufacturing, 2015, 16, 2245-2254.	2.2	22
42	Design, modeling and control of a novel parallel kinematics servo gantry for high precision tracking. , 2014, , .		4
43	A discrete time-varying internal model-based approach for high precision tracking of a multi-axis servo gantry. ISA Transactions, 2014, 53, 1695-1703.	5.7	10
44	Time-varying internal model-based tracking control for a voice coil motor servo gantry. , 2013, , .		12
45	An Internal Model-Based Tracking Control for a Class of Uncertain Linear Time-Varying Systems. , 2010, , .		11
46	A Novel Internal Model-Based Tracking Control for a Class of Linear Time-Varying Systems. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2010, 132, .	1.6	17
47	Rotational angle based pressure control of a common rail fuel injection system for internal combustion engines. , 2009, , .		6
48	Trajectory tracking and disturbance rejection for linear time-varying systems: Input/output representation. Systems and Control Letters, 2009, 58, 452-460.	2.3	39
49	Adaptive Robust Output Regulation of Uncertain Linear Periodic Systems. IEEE Transactions on Automatic Control, 2009, 54, 266-278.	5.7	47
50	Semiglobal robust output regulation with generalized immersion. , 2008, , .		0
51	The linear periodic output regulation problem. Systems and Control Letters, 2006, 55, 518-529.	2.3	57
52	Design, Fabrication and Implementation of a High-Performance Compliant Nanopositioner via 3D Printing with Continuous Fiber-Reinforced Composite. Journal of Micromechanics and Microengineering, 0, , .	2.6	1