

Lining Sun

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

131 papers	956 citations	17 h-index	25 g-index
196 ext. papers	1,342 ext. citations	4 avg, IF	4.51 L-index

#	Paper	IF	Citations
131	Learning Adaptive Grasping From Human Demonstrations. <i>IEEE/ASME Transactions on Mechatronics</i> , 2022 , 1-9	5.5	1
130	A Bionic Spatial Cognition Model and Method for Robots Based on the Hippocampus Mechanism.. <i>Frontiers in Neurorobotics</i> , 2021 , 15, 769829	3.4	
129	Method of robot episode cognition based on hippocampus mechanism. <i>IEEE Access</i> , 2021 , 1-1	3.5	1
128	Swarming Microdroplets to a Dexterous Micromanipulator. <i>Advanced Functional Materials</i> , 2021 , 31, 2011193	15.6	13
127	Vertical distance from shading in the SEM. <i>Micron</i> , 2021 , 141, 102978	2.3	
126	Magnetic Actuated Shape-memory Helical Microswimmers with Programmable Recovery Behaviors. <i>Journal of Bionic Engineering</i> , 2021 , 18, 799-811	2.7	5
125	Creating Better Collision-Free Trajectory for Robot Motion Planning by Linearly Constrained Quadratic Programming. <i>Frontiers in Neurorobotics</i> , 2021 , 15, 724116	3.4	0
124	Cooperative Self-Assembled Magnetic Micropaddles at Liquid Surfaces. <i>ACS Applied Materials & Interfaces</i> , 2021 , 13, 46180-46191	9.5	2
123	Spatial Topological Relation Analysis for Cluttered Scenes. <i>Sensors</i> , 2020 , 20,	3.8	2
122	Ferrofluid Droplets as Liquid Microrobots with Multiple Deformabilities. <i>Advanced Functional Materials</i> , 2020 , 30, 2000138	15.6	24
121	Autonomous Biohybrid Urchin-Like Microperforator for Intracellular Payload Delivery. <i>Small</i> , 2020 , 16, e1906701	11	27
120	Cooperative recyclable magnetic microsubmarines for oil and microplastics removal from water. <i>Applied Materials Today</i> , 2020 , 20, 100682	6.6	26
119	Mechanical design and force control algorithm for a robot leg with hydraulic series-elastic actuators. <i>International Journal of Advanced Robotic Systems</i> , 2020 , 17, 172988142092101	1.4	1
118	A Strong Tracking Mixed-Degree Cubature Kalman Filter Method and Its Application in a Quadruped Robot. <i>Sensors</i> , 2020 , 20,	3.8	7
117	A Vision-Based Two-Stage Framework for Inferring Physical Properties of the Terrain. <i>Applied Sciences (Switzerland)</i> , 2020 , 10, 6473	2.6	4
116	Flexible nozzle based liquid metal direct writing system assisted in patterned silicon nanowires. <i>Microsystem Technologies</i> , 2020 , 26, 1285-1292	1.7	2
115	Attitude Trajectory Optimization to Ensure Balance Hexapod Locomotion. <i>Sensors</i> , 2020 , 20,	3.8	2

114	Local CPG Self Growing Network Model with Multiple Physical Properties. <i>Applied Sciences (Switzerland)</i> , 2020 , 10, 5497	2.6	1
113	Force-controlled Compensation Scheme for P-Q Valve-controlled Asymmetric Cylinder used on Hydraulic Quadruped Robots. <i>Journal of Bionic Engineering</i> , 2020 , 17, 1139-1151	2.7	2
112	High-Speed AFM Imaging of Nanopositioning Stages Using H _∞ and Iterative Learning Control. <i>IEEE Transactions on Industrial Electronics</i> , 2020 , 67, 2430-2439	8.9	23
111	Analysis and Measurement of Adhesive Behavior for Gecko-Inspired Synthetic Microwedge Structure. <i>Advanced Materials Interfaces</i> , 2019 , 6, 1900283	4.6	8
110	Programmable Generation and Motion Control of a Snakelike Magnetic Microrobot Swarm. <i>IEEE/ASME Transactions on Mechatronics</i> , 2019 , 24, 902-912	5.5	23
109	Mechanism Design and Optimization of a Haptic Master Manipulator for Laparoscopic Surgical Robots. <i>IEEE Access</i> , 2019 , 7, 147808-147824	3.5	8
108	Learning Articulated Constraints From a One-Shot Demonstration for Robot Manipulation Planning. <i>IEEE Access</i> , 2019 , 7, 172584-172596	3.5	3
107	Automated Noncontact Micromanipulation Using Magnetic Swimming Microrobots. <i>IEEE Nanotechnology Magazine</i> , 2018 , 17, 666-669	2.6	18
106	Nanoscale Mapping of the Surface Potential: Multifrequency Modulation Open-Loop Kelvin Probe Force Microscopy. <i>IEEE Nanotechnology Magazine</i> , 2018 , 17, 670-674	2.6	0
105	In Situ Quantification the Complex Poisson's Ratio of Single Cells Using a Magnetic-Drive Dynamic Atomic Force Microscopy Approach. <i>IEEE Nanotechnology Magazine</i> , 2018 , 17, 680-683	2.6	2
104	Simultaneously Measuring Force and Displacement: Calibration of Magnetic Torque Actuated Microcantilevers for Nanomechanical Mapping. <i>IEEE Sensors Journal</i> , 2018 , 18, 2682-2689	4	1
103	Development of a novel long range piezoelectric motor based on double rectangular trajectories driving. <i>Microsystem Technologies</i> , 2018 , 24, 1733-1742	1.7	6
102	A Friction-Inertial-Based Rotary Motor: Design, Modelling and Experiments. <i>Materials</i> , 2018 , 11,	3.5	9
101	Real-Time Curvature Detection of a Flexible Needle with a Bevel Tip. <i>Sensors</i> , 2018 , 18,	3.8	4
100	A Design of an Instrument Based on a Piezoelectric Actuator to Study the Force Output of Piezoelectric Ceramic. <i>Journal of Testing and Evaluation</i> , 2018 , 46, 20160656	1	1
99	Singularity Analysis for the Existing Closed-Form Solutions of the Hand-Eye Calibration. <i>IEEE Access</i> , 2018 , 6, 75407-75421	3.5	10
98	Design, analysis and experimental performance of a piezoelectric rotary actuator based on compliant foot driving. <i>Microsystem Technologies</i> , 2017 , 23, 3765-3773	1.7	11
97	Design, analysis and experimental performance of a bionic piezoelectric rotary actuator. <i>Journal of Bionic Engineering</i> , 2017 , 14, 348-355	2.7	17

96	A 6-DOF parallel bone-grinding robot for cervical disc replacement surgery. <i>Medical and Biological Engineering and Computing</i> , 2017 , 55, 2107-2121	3.1	5
95	Multiparametric Kelvin Probe Force Microscopy for the Simultaneous Mapping of Surface Potential and Nanomechanical Properties. <i>Langmuir</i> , 2017 , 33, 2725-2733	4	15
94	A Novel Position Compensation Scheme for Cable-Pulley Mechanisms Used in Laparoscopic Surgical Robots. <i>Sensors</i> , 2017 , 17,	3.8	13
93	Broad modulus range nanomechanical mapping by magnetic-drive soft probes. <i>Nature Communications</i> , 2017 , 8, 1944	17.4	31
92	A velocity estimation algorithm for legged robot. <i>Advances in Mechanical Engineering</i> , 2017 , 9, 168781401173273		
91	Design and experimental performance of a piezoelectric wheelbarrow applicable to the stick-slip motion study 2016 ,		1
90	A single-step lithography system based on an enhanced robotic adhesive dispenser. <i>Review of Scientific Instruments</i> , 2016 , 87, 095005	1.7	3
89	Atomic force microscope caliper for critical dimension measurements of micro and nanostructures through sidewall scanning. <i>Ultramicroscopy</i> , 2015 , 158, 8-16	3.1	12
88	Dropwise condensation on a hydrophobic probe-tip for manipulating micro-objects. <i>Applied Physics Letters</i> , 2015 , 106, 084105	3.4	14
87	Controlling Force in Polarization-Maintaining Fiber Fused Biconical Tapering. <i>Mathematical Problems in Engineering</i> , 2015 , 2015, 1-9	1.1	
86	Development of Three-Dimensional Atomic Force Microscope for Sidewall Structures Imaging With Controllable Scanning Density. <i>IEEE/ASME Transactions on Mechatronics</i> , 2015 , 1-1	5.5	22
85	Design and analysis of a piezostack driven jetting dispenser for high viscosity adhesives 2014 ,		6
84	An improved Canny edge detection algorithm 2014 ,		84
83	Velocity Control of a Bounding Quadruped via Energy Control and Vestibular Reflexes. <i>Journal of Bionic Engineering</i> , 2014 , 11, 556-571	2.7	8
82	Atomic force microscopy deep trench and sidewall imaging with an optical fiber probe. <i>Review of Scientific Instruments</i> , 2014 , 85, 123704	1.7	9
81	Mechanism of force mode dip-pen nanolithography. <i>Journal of Applied Physics</i> , 2014 , 115, 174314	2.5	
80	SEM Image-Based 3-D Nanomanipulation Information Extraction and Closed-Loop Probe Control. <i>IEEE Nanotechnology Magazine</i> , 2014 , 13, 1194-1203	2.6	3
79	A vacuum microgripping tool with integrated vibration releasing capability. <i>Review of Scientific Instruments</i> , 2014 , 85, 085002	1.7	26

78	Experimental Study on the Creation of Nanodots with Combined-Dynamic Mode Dip-Pen Nanolithography. <i>Integrated Ferroelectrics</i> , 2014 , 151, 7-13	0.8	23
77	Control of a Quadruped Robot with Bionic Springy Legs in Trotting Gait. <i>Journal of Bionic Engineering</i> , 2014 , 11, 188-198	2.7	60
76	Development of an antagonistic bionic joint controller for a musculoskeletal quadruped 2013 ,		1
75	Design of a unidirectional joint with adjustable stiffness for energy efficient hopping leg 2013 ,		2
74	CPG Control for Biped Hopping Robot in Unpredictable Environment. <i>Journal of Bionic Engineering</i> , 2012 , 9, 29-38	2.7	27
73	Dynamic dimensional synthesis of a precision 6-DOF parallel manipulator 2012 ,		1
72	Design and development of a cheetah robot under the neural mechanism controlling the leg's muscles 2012 ,		3
71	Bio-inspired controller for a robot cheetah with a neural mechanism controlling leg muscles. <i>Journal of Bionic Engineering</i> , 2012 , 9, 282-293	2.7	19
70	Adaptive Kalman filter and dynamic recurrent neural networks-based control design of macro-micro manipulator. <i>Journal of Control Theory and Applications</i> , 2012 , 10, 504-510		3
69	Image sub-pixel recognition method for optical precise adjustment 2012 ,		1
68	Fuzzy Control and Connected Region Marking Algorithm-Based SEM Nanomanipulation. <i>Mathematical Problems in Engineering</i> , 2012 , 2012, 1-16	1.1	2
67	Stiffness analysis and modal analysis of precision parallel manipulator with flexure hinge 2012 ,		1
66	Optimal motion generation for heavy duty industrial robots—Control scheme and algorithm 2011 ,		3
65	Dynamic Separation of a Sphere from a Flat or Sphere in the Presence of a Liquid Meniscus. <i>Tribology Transactions</i> , 2011 , 54, 542-547	1.8	4
64	Frame vibration suppression for wafer transfer system 2011 ,		1
63	A novel control strategy for quadruped robot walking over irregular terrain 2011 ,		5
62	A 3D stick-slip nanopositioner for nanomanipulation 2011 ,		7
61	Analysis and experiment of stick-slip motion principle in a legged microrobot 2011 ,		2

60	Development of a robot system assisting artificial cervical disc replacement surgery 2010 ,		2
59	Design and realization of an interactive medical images three dimension visualization system 2010 ,		1
58	Three-dimensional geometric modeling of the spine based on reverse engineering technology 2010 ,		1
57	FPGA-Based Control System for 6-UPS Medical Parallel Robot 2010 ,		1
56	A closed-loop intelligent control strategy for precise non-contact liquid dispensing 2010 ,		2
55	Intelligent control of Piezoelectric Micropump based on MEMS flow sensor 2010 ,		1
54	Active control of adhesion force for pick-and-place of micro objects with compound vibration in micromanipulation 2010 ,		1
53	Design and analysis of a 6-DOF parallel robot used in artificial cervical disc replacement surgery 2010 ,		3
52	Calibration of a 6-DOF parallel micromanipulator for nanomanipulation 2010 ,		1
51	Force-driven robotic drag control for freehand 3D ultrasound-guided robot-assisted percutaneous surgery 2009 ,		2
50	A Novel High-Speed and High-Accuracy Manipulator of Planar Five-Link Structure: Modeling and Calibration. <i>Advanced Robotics</i> , 2009 , 23, 89-112	1.7	1
49	Piezoelectrically driven silicon microgrippers integrated with sidewall piezoresistive sensor 2009 ,		3
48	A MEMS Flow Sensor and Its Application in Adaptive Liquid Dispensing 2009 ,		1
47	Design of a control system for a macro-micro dual-drive high acceleration high precision positioning stage for IC packaging. <i>Science in China Series D: Earth Sciences</i> , 2009 , 52, 1858-1865		13
46	An in-pipe micro robot actuated by piezoelectric bimorphs. <i>Science Bulletin</i> , 2009 , 54, 2134-2142	10.6	15
45	Design and Fabrication of a Four-Arm-Structure MEMS Gripper. <i>IEEE Transactions on Industrial Electronics</i> , 2009 , 56, 996-1004	8.9	51
44	Track-terrain interaction analysis for tracked mobile robot 2008 ,		2
43	Two-dimensional dense-arrayed probe-cards with a hoe-shaped probing-tip micromachining technique. <i>Proceedings of the IEEE International Conference on Micro Electro Mechanical Systems (MEMS)</i> , 2008 ,		1

42	Analysis of a New Workspace of the Hexaglide as a Motion Simulator for Fuel Tanker Trucks 2007 ,		1
41	A Flexible Experimental System for Complex Microassembly under Microscale Force and Vision-Based Control. <i>International Journal of Optomechatronics</i> , 2007 , 1, 81-102	3.5	9
40	Error Analysis and Compensation of Precision Parallel Robot for Sensor Locating in ICF 2007 ,		2
39	Automated Precise Liquid Dispensing System for Protein Crystallization 2007 ,		3
38	An Intelligent Home Environment Inspecting Robot 2007 ,		1
37	Tracking Control Method of Piezoelectric Actuator for Compensating Hysteresis and Creep 2007 ,		2
36	Design, Control and Application of a PZT-driven Micro-stage 2007 ,		1
35	Obstacle Performance Analysis of Mine Research Robot Based on Terramechanics 2007 ,		2
34	An Integrated Parallel Micromanipulator with Flexure Hinges for Optical Fiber Alignment 2007 ,		5
33	Kinematics analysis for obstacle-climbing performance of a rescue robot 2007 ,		4
32	A New Pose Measuring and Kinematics Calibrating Method for Manipulators. <i>Proceedings - IEEE International Conference on Robotics and Automation</i> , 2007 ,		4
31	A Novel Approach to Deriving the Unit-Homogeneous Jacobian Matrices of Mechanisms 2007 ,		5
30	Dynamic Load Effect on Tracked Robot Obstacle Performance 2007 ,		13
29	THE BOND STRENGTH MEASUREMENT OF SILICON-SILICON BONDING WAFERS BASED ON CRACK OPENING METHOD. <i>International Journal of Information Acquisition</i> , 2006 , 03, 339-347		1
28	Intelligent Detection of Bumps in a Mobile Robot 2006 ,		1
27	Optimal Kinematic Design of a Planar Parallel Manipulator with High Speed and High Precision 2006 ,		2
26	Image Fusion and 3-D Surface Reconstruction of Microparts Using Complex Valued Wavelet Transforms 2006 ,		2
25	Model and Simulation Research of Tissue Based CT Images 2006 ,		2

24	The Stability Analysis for Quadruped Bionic Robot 2006 ,	4
23	Behavior-based Control of a Hybrid Quadruped Robot 2006 ,	2
22	Time-Optimal Trajectory Generation of a Fast-Motion Planar Parallel Manipulator 2006 ,	3
21	Design Research of a Novel High Speed Nanometer Positioning System on Macro/Micro Driven for MEMS 2006 ,	4
20	Dynamic Modelling and Optimized Energy Distribution of Amphibian Walking Robot 2006 ,	2
19	A New Auto-focusing Algorithm for Optical Microscope Based Automated System 2006 ,	3
18	Measurement Method of Bond Strength for Silicon Direct Wafer Bonding 2006 ,	1
17	sEMG Based Control for 5 DOF Upper Limb Rehabilitation Robot System 2006 ,	8
16	A Compliant Ultra-Precision 6-DOF Parallel Positioner Based on the Coarse/Fine Dual Architecture 2006 ,	1
15	A New Wavelet Based Multi-focus Image Fusion Scheme and Its Application on Optical Microscopy 2006 ,	15
14	Wavelet-Based Focus Measure and 3-D Surface Reconstruction Method for Microscopy Images 2006 ,	23
13	Periodicity Locomotion Control Based on Central Pattern Generator 2006 ,	3
12	A novel ultrasonic micro-dissection technique for biomedicine. <i>Ultrasonics</i> , 2006 , 44 Suppl 1, e255-60	3.5 14
11	Adaptive inverse control for piezoelectric actuator based on hysteresis model 2005 ,	2
10	Visual servoing with modified Smith predictor for micromanipulation tasks	1
9	An approach for generating high velocity and high acceleration trajectories of industrial robots	1
8	A novel macro/micro dual driving miniature mobile robot for precision manipulation	1
7	Micromanipulation robot for automatic fiber alignment	1

6	A novel robot-assisted bonesetting system	2
5	Research of a novel xy-table based on error compensation	2
4	Global visual servoing of miniature mobile robot inside a micro-assembly station	3
3	Hybrid Vision-Force Control for Automatic Assembly of Miniaturized Gear System	2
2	Conceptional Design and Kinematics Modeling of a Wide-Range Flexure Hinge-Based Parallel Manipulator	1
1	Optimal kinematic design of a 2-DOF planar parallel robot	1