Fugui Xie

List of Publications by Year
in descending order

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81	2,039	293460	388640
papers	citations	24 h-index	36 g-index

82	82	82	996
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Measurement Configuration Optimization and Kinematic Calibration of a Parallel Robot. Journal of Mechanisms and Robotics, 2022, 14, .	1.5	10
2	Design and development of a SchÃ¶nflies-motion parallel robot with articulated platforms and closed-loop passive limbs. Robotics and Computer-Integrated Manufacturing, 2022, 77, 102352.	6.1	10
3	Modeling of sliding speed of harmonic reducer based on double-circular-arc tooth profile. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, 2022, 236, 5736-5747.	1.1	1
4	Structure design and kinematic analysis of a class of ring truss deployable mechanisms for satellite antennas based on novel basic units. Mechanism and Machine Theory, 2022, 174, 104881.	2.7	22
5	Position error modeling and accuracy evaluation of n-DoF translational parallel manipulators that can be transformed into n four-bar mechanisms based on motion/force transmissibility. Mechanism and Machine Theory, 2022, 176, 105012.	2.7	10
6	Global G3 continuity toolpath smoothing for a 5-DoF machining robot with parallel kinematics. Robotics and Computer-Integrated Manufacturing, 2021, 67, 102018.	6.1	34
7	Motion Control and Trajectory Planning for Obstacle Avoidance of the Mobile Parallel Robot Driven by Three Tracked Vehicles. Robotica, 2021, 39, 1037-1050.	1.3	14
8	Research on dynamic transmission error of harmonic drive with uncertain parameters by an interval method. Precision Engineering, 2021, 68, 285-300.	1.8	17
9	Stiffness Evaluation of an Adsorption Robot for Large-Scale Structural Parts Processing. Journal of Mechanisms and Robotics, 2021, 13, .	1.5	16
10	Tracking error prediction informed motion control of a parallel machine tool for high-performance machining. International Journal of Machine Tools and Manufacture, 2021, 164, 103714.	6.2	50
11	Elasto-geometrical error modeling and compensation of a five-axis parallel machining robot. Precision Engineering, 2021, 69, 48-61.	1.8	37
12	Kinematic calibration of a 5-axis parallel machining robot based on dimensionless error mapping matrix. Robotics and Computer-Integrated Manufacturing, 2021, 70, 102115.	6.1	35
13	Evaluation of dynamic isotropy and coupling acceleration capacity for a parallel manipulator with mixed DoFs. Mechanism and Machine Theory, 2021, 163, 104382.	2.7	9
14	An RBFNN-Informed Adaptive Sliding Mode Control for Wheeled Mobile Robots. Lecture Notes in Computer Science, 2021, , 649-658.	1.0	2
15	An Adsorption Machining Robot and Its Force Design. Lecture Notes in Computer Science, 2021, , 774-784.	1.0	3
16	Design and Motion/Force Transmissibility Analysis of Two Motion-Decoupled 3T1R Parallel Robots with Full Rotational Capability. Lecture Notes in Computer Science, 2021, , 460-469.	1.0	0
17	Velocity Constraints Based Online Trajectory Planning for High-Speed Parallel Robots. Lecture Notes in Computer Science, 2021, , 725-734.	1.0	0
18	Conceptual Design and Kinematic Optimization of a Gantry Hybrid Machining Robot. Lecture Notes in Computer Science, 2021, , 743-753.	1.0	3

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19	Parameter Optimization and Vibration Isolation Control of a Mobile Parallel Robot. Lecture Notes in Computer Science, 2021, , 814-824.	1.0	0
20	Design of the parallel mechanism for a hybrid mobile robot in wind turbine blades polishing. Robotics and Computer-Integrated Manufacturing, 2020, 61, 101857.	6.1	47
21	Error modeling and sensitivity analysis of a parallel robot with R-(SS)2 branches. International Journal of Intelligent Robotics and Applications, 2020, 4, 416-428.	1.6	6
22	Worst case identification based topology optimization of a 2-DoF hybrid robotic arm. International Journal of Intelligent Robotics and Applications, 2020, 4, 136-148.	1.6	4
23	Obstacle-crossing strategy and formation parameters optimization of a multi-tracked-mobile-robot system with a parallel manipulator. Mechanism and Machine Theory, 2020, 152, 103919.	2.7	8
24	An evaluation approach for motion-force interaction performance of parallel manipulators with closed-loop passive limbs. Mechanism and Machine Theory, 2020, 149, 103844.	2.7	23
25	Kinematic calibration of the 3-degree-of-freedom redundantly actuated spatial parallel module of a five-axis hybrid machine. Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture, 2020, 234, 1185-1197.	1.5	6
26	Screw Theory-Based Motion/Force Transmissibility Analysis of High-Speed Parallel Robots With Articulated Platforms. Journal of Mechanisms and Robotics, 2020, 12, .	1.5	22
27	SHUYU Robot: An Automatic Rapid Temperature Screening System. Chinese Journal of Mechanical Engineering (English Edition), 2020, 33, .	1.9	12
28	Technology-Oriented Synchronous Optimal Design of a 4-Degrees-of-Freedom High-Speed Parallel Robot. Journal of Mechanical Design, Transactions of the ASME, 2020, 142, .	1.7	1
29	Error modeling and sensitivity analysis of a novel 5-degree-of-freedom parallel kinematic machine tool. Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture, 2019, 233, 1637-1652.	1.5	18
30	Design and Development of a Portable Machining Robot with Parallel Kinematics. , 2019, , .		5
31	An energy efficiency evaluation method for parallel robots based on the kinetic energy change rate. Science China Technological Sciences, 2019, 62, 1035-1044.	2.0	10
32	Parameter Optimization for the Driving System of a 5 Degrees-of-Freedom Parallel Machining Robot With Planar Kinematic Chains. Journal of Mechanisms and Robotics, 2019, 11, .	1.5	11
33	Ultimate Load-Carrying Capacity Analysis of Parallel Robots with Given Motor Power. , 2019, , .		0
34	Concept Design of Novel 2-DOF Parallel Robots with Spatial Kinematic Chains Based on a Heuristic Strategy. , 2019, , .		0
35	A DenseNet feature-based loop closure method for visual SLAM system. , 2019, , .		4
36	Design and Kinematic Analysis of a 2-DoF Spatial Parallel Mechanism with Flexible Orientation Capability. , 2019, , .		1

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37	A smooth and undistorted toolpath interpolation method for 5-DoF parallel kinematic machines. Robotics and Computer-Integrated Manufacturing, 2019, 57, 347-356.	6.1	28
38	Optimal design of a novel 4-degree-of-freedom parallel mechanism with flexible orientation capability. Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture, 2019, 233, 632-642.	1.5	8
39	Conceptual design and kinematic analysis of a novel parallel robot for high-speed pick-and-place operations. Frontiers of Mechanical Engineering, 2018, 13, 211-224.	2.5	21
40	Evaluation of the power consumption of a high-speed parallel robot. Frontiers of Mechanical Engineering, 2018, 13, 167-178.	2.5	14
41	DS-SLAM: A Semantic Visual SLAM towards Dynamic Environments. , 2018, , .		423
42	A spatial vector projection based error sensitivity analysis method for industrial robots. Journal of Mechanical Science and Technology, 2018, 32, 2839-2850.	0.7	8
43	A Novel Parameter Optimization Method for the Driving System of High-Speed Parallel Robots. Journal of Mechanisms and Robotics, 2018, 10, .	1.5	13
44	A novel acceleration capacity index based on motion/force transmissibility for high-speed parallel robots. Mechanism and Machine Theory, 2018, 126, 155-170.	2.7	26
45	Dynamic performance analysis of the X4 high-speed pick-and-place parallel robot. Robotics and Computer-Integrated Manufacturing, 2017, 46, 48-57.	6.1	62
46	Kinematic Optimization of a Five Degrees-of-Freedom Spatial Parallel Mechanism With Large Orientational Workspace. Journal of Mechanisms and Robotics, 2017, 9, .	1.5	42
47	Topology Optimization of the Active Arms for a High-Speed Parallel Robot Based on Variable Height Method. Lecture Notes in Computer Science, 2017, , 212-224.	1.0	2
48	An NC Code Based Machining Movement Simulation Method for a Parallel Robotic Machine. Lecture Notes in Computer Science, 2017, , 3-13.	1.0	2
49	A geometric error identification method for the swiveling axes of five-axis machine tools by static R-test. International Journal of Advanced Manufacturing Technology, 2017, 89, 3393-3405.	1.5	37
50	Multi-robot coordination for high-speedpick-and-place tasks. , 2017, , .		0
51	V2: A novel two degree-of-freedom parallel manipulator designed for pick-and-place operations. , 2017, , .		4
52	Analysis of the kinematic characteristics of a high-speed parallel robot with SchÃ¶nflies motion: Mobility, kinematics, and singularity. Frontiers of Mechanical Engineering, 2016, 11, 135-143.	2.5	34
53	Mobility, Singularity, and Kinematics Analyses of a Novel Spatial Parallel Mechanism. Journal of Mechanisms and Robotics, 2016, 8, .	1.5	42
54	Geometric error identification and compensation of linear axes based on a novel 13-line method. International Journal of Advanced Manufacturing Technology, 2016, 87, 2269-2283.	1.5	44

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55	Conceptual design and optimization of a 3-DoF parallel mechanism for a turbine blade grinding machine. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, 2016, 230, 406-413.	1.1	5
56	Geometric error modeling and sensitivity analysis of a five-axis machine tool. International Journal of Advanced Manufacturing Technology, 2016, 82, 2037-2051.	1.5	39
57	Screw Theory Based Singularity Analysis of Lower-Mobility Parallel Robots considering the Motion/Force Transmissibility and Constrainability. Mathematical Problems in Engineering, 2015, 2015, 1-11.	0.6	11
58	Design and Development of a High-Speed and High-Rotation Robot With Four Identical Arms and a Single Platform. Journal of Mechanisms and Robotics, 2015, 7, .	1.5	92
59	Design of a novel 3-DoF parallel kinematic mechanism: type synthesis and kinematic optimization. Robotica, 2015, 33, 622-637.	1.3	26
60	A novel spray painting robotic device for the coating process in automotive industry. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, 2015, 229, 2081-2093.	1.1	14
61	Optimal Selection of Servo Motor and Reduction Ratio for High-Speed Parallel Robots. Lecture Notes in Computer Science, 2015, , 109-120.	1.0	3
62	Type synthesis of 2T1R-type parallel kinematic mechanisms and the application in manufacturing. Robotics and Computer-Integrated Manufacturing, 2014, 30, 1-10.	6.1	74
63	Development and experimental study of a redundant hybrid machine with five-face milling capability in one setup. International Journal of Precision Engineering and Manufacturing, 2014, 15, 13-21.	1.1	18
64	Error modeling and sensitivity analysis of a parallel robot with SCARA(selective compliance assembly) Tj ETQq0 0 0 rgBT /Overlock 10 Tf	1.9	43
65	Optimization of a redundantly actuated parallel kinematic mechanism for a 5-degree-of-freedom hybrid machine tool. Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture, 2014, 228, 1630-1641.	1.5	22
66	Force/Motion Transmissibility Analysis of Six Degree of Freedom Parallel Mechanisms. Journal of Mechanisms and Robotics, 2014, 6, .	1.5	30
67	A Comparison Study on Motion/Force Transmissibility of Two Typical 3-DOF Parallel Manipulators: The Sprint Z3 and A3 Tool Heads. International Journal of Advanced Robotic Systems, 2014, 11, 5.	1.3	49
68	Optimal design of a main driving mechanism for servo punch press based on performance atlases. Chinese Journal of Mechanical Engineering (English Edition), 2013, 26, 909-917.	1.9	3
69	Type synthesis of 4-DOF parallel kinematic mechanisms based on Grassmann line geometry and atlas method. Chinese Journal of Mechanical Engineering (English Edition), 2013, 26, 1073-1081.	1.9	46
70	Type Synthesis and Typical Application of 1T2R-Type Parallel Robotic Mechanisms. Mathematical Problems in Engineering, 2013, 2013, 1-12.	0.6	15
71	A Comparison Study on the Orientation Capability and Parasitic Motions of Two Novel Articulated Tool Heads with Parallel Kinematics. Advances in Mechanical Engineering, 2013, 5, 249103.	0.8	17
72	Error Sensitivity Analysis of Novel Virtual Center Mechanism with Parallel Kinematics. Jixie Gongcheng Xuebao/Chinese Journal of Mechanical Engineering, 2013, 49, 85.	0.7	7

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73	A 3-DOF parallel manufacturing module and its kinematic optimization. Robotics and Computer-Integrated Manufacturing, 2012, 28, 334-343.	6.1	110
74	Performance Evaluation of Redundant Parallel Manipulators Assimilating Motion/Force Transmissibility. International Journal of Advanced Robotic Systems, 2011, 8, 66.	1.3	44
75	Design and experimental study of the SPKM165, a five-axis serial-parallel kinematic milling machine. Science China Technological Sciences, 2011, 54, 1193-1205.	2.0	23
76	Motion/force transmission indices of parallel manipulators. Frontiers of Mechanical Engineering, 2011, 6, 89-91.	2.5	5
77	Optimum Kinematic Design of a 3-DOF Parallel Kinematic Manipulator with Actuation Redundancy. Lecture Notes in Computer Science, 2011, , 250-259.	1.0	9
78	Design of a Three-Axis Articulated Tool Head With Parallel Kinematics Achieving Desired Motion/Force Transmission Characteristics. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2010, 132, .	1.3	34
79	Optimal Design and Development of a Decoupled A/B-Axis Tool Head with Parallel Kinematics. Advances in Mechanical Engineering, 2010, 2, 474602.	0.8	22
80	Kinematic Analysis of the SPKM165, a 5-Axis Serial-Parallel Kinematic Milling Machine. Lecture Notes in Computer Science, 2009, , 592-602.	1.0	1
81	Optimum kinematic design of the 4R 2-DOF parallel mechanism. Tsinghua Science and Technology, 2009, 14, 663-668.	4.1	10