# Bin Zi

List of Publications by Year
in descending order



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|---|---|---|---|
| 58 papers | 1,261 citations | 361413 20 h-index | 377865 34 g-index |
| 58 all docs | 58 docs citations | 58 times ranked | 915 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | A Review on Cable-driven Parallel Robots. Chinese Journal of Mechanical Engineering (English) Tj ETQq1 1 0.784314 rgBT /Overlock 10 | 3.7 | 115 |
| 2 | The Design and Development of an Omni-Directional Mobile Robot Oriented to an Intelligent Manufacturing System. Sensors, 2017, 17, 2073. | 3.8 | 93 |
| 3 | Design and Development of a New Cable-Driven Parallel Robot for Waist Rehabilitation. IEEE/ASME Transactions on Mechatronics, 2019, 24, 1497-1507. | 5.8 | 88 |
| 4 | Dynamics and trajectory tracking control of cooperative multiple mobile cranes. Nonlinear Dynamics, 2016, 83, 89-108. | 5.2 | 84 |
| 5 | Lightâ€Driven Selfâ€Oscillating Actuators with Phototactic Locomotion Based on Black Phosphorus Heterostructure. Angewandte Chemie - International Edition, 2021, 60, 20511-20517. | 13.8 | 82 |
| 6 | Design, stiffness analysis and experimental study of a cable-driven parallel 3D printer. Mechanism and Machine Theory, 2019, 132, 207-222. | 4.5 | 64 |
| 7 | Design, analysis and control of a winding hybrid-driven cable parallel manipulator. Robotics and Computer-Integrated Manufacturing, 2017, 48, 196-208. | 9.9 | 60 |
| 8 | Design of a New Piezoelectric Energy Harvester Based on Compound Two-Stage Force Amplification Frame. IEEE Sensors Journal, 2018, 18, 3989-4000. | 4.7 | 53 |
| 9 | New Graph Representation for Planetary Gear Trains. Journal of Mechanical Design, Transactions of the ASME, 2018, 140, . | 2.9 | 45 |
| 10 | Kinematic Calibration of a Cable-Driven Parallel Robot for 3D Printing. Sensors, 2018, 18, 2898. | 3.8 | 45 |
| 11 | Analysis and control of the cable-supporting system including actuator dynamics. Control Engineering Practice, 2011, 19, 491-501. | 5.5 | 44 |
| 12 | State-of-the-art research in robotic hip exoskeletons: A general review. Journal of Orthopaedic Translation, 2020, 20, 4-13. | 3.9 | 44 |
| 13 | Development of an active and passive finger rehabilitation robot using pneumatic muscle and magnetorheological damper. Mechanism and Machine Theory, 2020, 147, 103762. | 4.5 | 38 |
| 14 | Dynamic Simulation of Hybrid-Driven Planar Five-Bar Parallel Mechanism Based on SimMechanics and Tracking Control. International Journal of Advanced Robotic Systems, 2011, 8, 37. | 2.1 | 37 |
| 15 | Steady-State Heat-Flow Coupling Field of a High-Power Magnetorheological Fluid Clutch Utilizing Liquid Cooling. Journal of Fluids Engineering, Transactions of the ASME, 2017, 139, . | 1.5 | 30 |
| 16 | Design and Optimization of a Hybrid-Driven Waist Rehabilitation Robot. Sensors, 2016, 16, 2121. | 3.8 | 28 |
| 17 | Kinematics and error analysis of cooperative cable parallel manipulators for multiple mobile cranes. International Journal of Mechanics and Materials in Design, 2014, 10, 395-409. | 3.0 | 25 |
| 18 | External Force Self-Sensing Based on Cable-Tension Disturbance Observer for Surgical Robot End-Effector. IEEE Sensors Journal, 2019, 19, 5274-5284. | 4.7 | 24 |

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|---|---|---|---|
| 19 | Effects of unbalance on the nonlinear dynamics of rotors with transverse cracks. Nonlinear Dynamics, 2018, 91, 2755-2772. | 5.2 | 23 |
| 20 | Dynamic Trajectory Planning for a Three Degrees-of-Freedom Cable-Driven Parallel Robot Using Quintic B-Splines. Journal of Mechanical Design, Transactions of the ASME, 2020, 142, . | 2.9 | 22 |
| 21 | Dynamics-based nonsingular interval model and luffing angular response field analysis of the DACS with narrowly bounded uncertainty. Nonlinear Dynamics, 2017, 90, 2599-2626. | 5.2 | 21 |
| 22 | New Structural Representation and Digital-Analysis Platform for Symmetrical Parallel Mechanisms. International Journal of Advanced Robotic Systems, 2013, 10, 243. | 2.1 | 19 |
| 23 | A Clamping Force Estimation Method Based on a Joint Torque Disturbance Observer Using PSO-BPNN for Cable-Driven Surgical Robot End-Effectors. Sensors, 2019, 19, 5291. | 3.8 | 17 |
| 24 | Three-dimensional static and dynamic stiffness analyses of the cable driven parallel robot with non-negligible cable mass and elasticity. Mechanics Based Design of Structures and Machines, 2018, 46, 455-482. | 4.7 | 13 |
| 25 | Design and Analysis of Cooperative Cable Parallel Manipulators for Multiple Mobile Cranes. International Journal of Advanced Robotic Systems, 2012, 9, 207. | 2.1 | 12 |
| 26 | Integrated Mechanism Design and Control for Completely Restrained Hybrid-Driven Based Cable Parallel Manipulators. Journal of Intelligent and Robotic Systems: Theory and Applications, 2014, 74, 643-661. | 3.4 | 12 |
| 27 | Non-smooth dynamical analysis and experimental validation of the cable-suspended parallel manipulator. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, 2012, 226, 2456-2466. | 2.1 | 11 |
| 28 | Combined kinematic and static analysis of an articulated lower limb traction device for a rehabilitation robotic system. Science China Technological Sciences, 2021, 64, 1189-1202. | 4.0 | 11 |
| 29 | Algebraic Method-Based Point-to-Point Trajectory Planning of an Under-Constrained Cable-Suspended Parallel Robot with Variable Angle and Height Cable Mast. Chinese Journal of Mechanical Engineering (English Edition), 2020, 33, . | 3.7 | 11 |
| 30 | Development of Modular Cable-Driven Parallel Robotic Systems. IEEE Access, 2019, 7, 5541-5553. | 4.2 | 10 |
| 31 | Design and analysis of a novel cable-actuated palletizing robot. International Journal of Advanced Robotic Systems, 2017, 14, 172988141774108. | 2.1 | 9 |
| 32 | Development and Control of an MR Brake-Based Passive Force Feedback Data Glove. IEEE Access, 2019, 7, 172477-172488. | 4.2 | 9 |
| 33 | Kinematic Uncertainty Analysis of a Cable-Driven Parallel Robot Based on an Error Transfer Model. Journal of Mechanisms and Robotics, 2022, 14, . | 2.2 | 9 |
| 34 | Dynamic Modeling and Error Analysis of a Cable-Linkage Serial-Parallel Palletizing Robot. IEEE Access, 2021, 9, 2188-2200. | 4.2 | 8 |
| 35 | Collision free force closure workspace determination of reconfigurable planar cable driven parallel robot. , 2016, , . | | 7 |
| 36 | Vibration Characteristics of Rotating Mistuned Bladed Disks considering the Coriolis Force, Spin Softening, and Stress Stiffening Effects. Shock and Vibration, 2019, 2019, 1-22. | 0.6 | 5 |

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|---|---|---|---|
| 37 | Cable Angle and Minimum Resultant Force Response Analysis of Lower Limb Traction Device for Rehabilitation Robot With Interval Parameters. Journal of Computing and Information Science in Engineering, 2021, 21, . | 2.7 | 5 |
| 38 | Typical configuration analysis of a modular reconfigurable cable-driven parallel robot. International Journal of Advanced Robotic Systems, 2019, 16, 172988141983475. | 2.1 | 4 |
| 39 | Design and Simulation of a Robotic Knee Exoskeleton with a Variable Stiffness Actuator for Gait Rehabilitation. , 2021, , . | | 4 |
| 40 | Application of Deep Learning for Defect Detection of Paint Film. , 2021, , . | | 3 |
| 41 | Lightâ€Driven Selfâ€Oscillating Actuators with Phototactic Locomotion Based on Black Phosphorus Heterostructure. Angewandte Chemie, 2021, 133, 20674-20680. | 2.0 | 3 |
| 42 | Iterative Learning Tracking Control of a Hybrid-Driven Based Three-Cable Parallel Manipulator. Advances in Mechanical Engineering, 2014, 6, 248385. | 1.6 | 2 |
| 43 | Mechanism Design and Kinematic Analysis of a Waist and Lower Limbs Cable-Driven Parallel Rehabilitation Robot. , 2019, , . | | 2 |
| 44 | Smooth Trajectory Planning for a Cable-Driven Waist Rehabilitation Robot Using Quintic NURBS. Lecture Notes in Computer Science, 2021, , 555-563. | 1.3 | 2 |
| 45 | Special Issue on Rehabilitation Robots, Devices, and Methodologies. Journal of Engineering and Science in Medical Diagnostics and Therapy, 2020, 3, . | 0.5 | 2 |
| 46 | Path Planning for a Cable-Driven Parallel Waist Rehabilitation Robot Based on Discriminant Analysis Model. , 2021, , . | | 2 |
| 47 | Design and analysis of a 2-DOF hybrid-driven planar parallel manipulator based on virtual prototype technology. , 2010, , . | | 1 |
| 48 | Luffing angular response field prediction of the DACS with narrowly random payload parameters based on a modified hybrid random method. Archive of Applied Mechanics, 2018, 88, 1767-1789. | 2.2 | 1 |
| 49 | Kinematics Modeling and Analysis of a Novel Five-DoF Spraying Robot. , 2019, , . | | 1 |
| 50 | Simulation and Analysis of Mechanical Characteristics of a 6-DOF Spray-painting Robot. , 2019, , . | | 1 |
| 51 | On Control System of the Cable-Supporting Parallel Mechanism Including Actuator Dynamics. , 2009, , . | | 0 |
| 52 | Trajectory control of the cable-based parallel mechanism based on dynamics. , 2009, , . | | 0 |
| 53 | Design and analysis of completely restrained cable manipulators with 3 Degrees of Freedom. , 2010, , . | | 0 |
| 54 | Research on a Virtual Simulation System for Master-slave Teaching of a Spraying Robot. , 2019, , . | | 0 |

| # | Article | IF | Citations |
|---|---|---|---|
| 55 | Design, Modeling and Analysis of a Novel Backdrivable Cable-driven Series Elastic Actuator. , 2019, , . | | 0 |
| 56 | Control and Monitoring of a Double Cable Driven System. , 2021, , . | | 0 |
| 57 | Design and Modeling for Hybrid Driven Knee Orthosis with SMA actuator. , 2021, , . | | 0 |
| 58 | Design and Kinematic Analysis of a Rigid-flexible Coupling Driven Parallel Spraying Robot. , 2021, , . | | 0 |