Zheng Chen

List of Publications by Year
in descending order

106	4,116	132226	119536
papers	citations	32 h-index	62 g-index

109	109	109	3641
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Novel IBVS System Design for Cable-Driven Hyper-Redundant Manipulator With MLESAC-Based Feature Vector Optimization. IEEE Transactions on Industrial Informatics, 2024, 20, 3327-3338.	12.1	0
2	Flow match and precision motion control of asymmetric electro-hydrostatic actuators with complex external force in four-quadrants. Journal of the Franklin Institute, 2024, 361, 1025-1039.	3.7	2
3	Accurate Motion Control of an Independent Metering Actuator With Adaptive Robust Compensation of Uncertainties in Pressure Dynamics. IEEE/ASME Transactions on Mechatronics, 2024, , 1-13.	6.1	0
4	Fast and accurate tracking control of robotic manipulators subject to state constraints and input saturation by effectively integrating planning strategies. ISA Transactions, 2024, 149, 373-380.	6.2	0
5	Observer-Based Adaptive Robust Precision Motion Control of a Multi-Joint Hydraulic Manipulator. IEEE/CAA Journal of Automatica Sinica, 2024, 11, 1213-1226.	13.9	3
6	Advanced Motion Control of Hydraulic Manipulator With Precise Compensation of Dynamic Friction. IEEE Transactions on Industrial Informatics, 2024, 20, 9375-9384.	12.1	0
7	Telepresence augmentation for visual and haptic guided immersive teleoperation of industrial manipulator. ISA Transactions, 2024, 150, 262-277.	6.2	0
8	Online Optimization-Based Time-Optimal Adaptive Robust Control of Linear Motors With Input and State Constraints. IEEE/ASME Transactions on Mechatronics, 2024, , 1-9.	6.1	0
9	Cooperative Target Enclosing Control for Multiple Unmanned Surface Vehicles with Unknown Dynamics and Safety Assurance. IEEE Transactions on Intelligent Vehicles, 2024, , 1-14.	14.7	0
10	A virtual-reality spatial matching algorithm and its application on equipment maintenance support: System design and user study. Signal Processing: Image Communication, 2024, , 117188.	3.4	0
11	Unified Contact Model and Hybrid Motion/force Control for Teleoperated Manipulation in Unknown Environments. IEEE/ASME Transactions on Mechatronics, 2024, , 1-12.	6.1	0
12	A Novel SMMS Teleoperation Control Framework for Multiple Mobile Agents With Obstacles Avoidance by Leader Selection. IEEE Transactions on Systems, Man, and Cybernetics: Systems, 2023, 53, 1517-1529.	9.7	15
13	An Integrated Trajectory Planning and Motion Control Strategy of a Variable Rotational Speed Pump-Controlled Electro-Hydraulic Actuator. IEEE/ASME Transactions on Mechatronics, 2023, 28, 588-597.	6.1	19
14	Constrained Motion Control of an Electro- Hydraulic Actuator Under Multiple Time-Varying Constraints. IEEE Transactions on Industrial Informatics, 2023, 19, 11878-11888.	12.1	6
15	Immersive virtual simulation system design for the guidance, navigation and control of unmanned surface vehicles. Ocean Engineering, 2023, 281, 114884.	4.4	4
16	Large-Sized Multirotor Design: Accurate Modeling with Aerodynamics and Optimization for Rotor Tilt Angle. Drones, 2023, 7, 614.	5.1	0
17	Precision Motion Control of an Independent Metering Hydraulic System With Nonlinear Flow Modeling and Compensation. IEEE Transactions on Industrial Electronics, 2022, 69, 7088-7098.	8.2	25
18	Desired compensation adaptive robust repetitive control of a multi-DoFs industrial robot. ISA Transactions, 2022, 128, 556-564.	6.2	6

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19	Gait-stride-and-frequency-based human intention recognition approach and experimental verification on lower limb exoskeleton. Transactions of the Institute of Measurement and Control, 2022, 44, 1149-1160.	1.9	2
20	Geometric Adaptive Robust Hierarchical Control for Quadrotors With Aerodynamic Damping and Complete Inertia Compensation. IEEE Transactions on Industrial Electronics, 2022, 69, 13213-13224.	8.2	8
21	Unified Method for Task-Space Motion/Force/Impedance Control of Manipulator With Unknown Contact Reaction Strategy. IEEE Robotics and Automation Letters, 2022, 7, 1478-1485.	5.2	13
22	Motion Control of a Hydraulic Manipulator with Adaptive Nonlinear Model Compensation and Comparative Experiments. Machines, 2022, 10, 214.	2.3	4
23	Adaptive robust control design for underwater multi-DoF hydraulic manipulator. Ocean Engineering, 2022, 248, 110822.	4.4	34
24	Modeling and Extended State Observer-Based Backstepping Control of Underwater Electro Hydrostatic Actuator with Pressure Compensator and External Load. Electronics (Switzerland), 2022, 11, 1286.	3.2	6
25	Position-Based Visual Servoing Control for Multi-Joint Hydraulic Manipulator. Journal of Intelligent and Robotic Systems: Theory and Applications, 2022, 105, .	3.5	9
26	A Telepresence-Guaranteed Control Scheme for Teleoperation Applications of Transferring Weight-Unknown Objects. IEEE/CAA Journal of Automatica Sinica, 2022, 9, 1015-1025.	13.9	4
27	A Teleoperation Framework Based on Heterogeneous Matching for Hydraulic Manipulator. Machines, 2022, 10, 536.	2.3	4
28	Optimization-based adaptive neural sliding mode control for nonlinear systems with fast and accurate response under state and input constraints. Journal of the Franklin Institute, 2022, 359, 6735-6758.	3.7	4
29	Force Tracking Impedance Control of Hydraulic Series Elastic Actuators Interacting with Unknown Environment. Mathematics, 2022, 10, 3383.	2.3	3
30	Virtual-reality-based online simulator design with a virtual simulation system for the docking of unmanned underwater vehicle. Ocean Engineering, 2022, 266, 112780.	4.4	6
31	Disturbance Observer-Based Sliding Mode Controller for Underwater Electro-Hydrostatic Actuator Affected by Seawater Pressure. Machines, 2022, 10, 1115.	2.3	1
32	Advanced Valves and Pump Coordinated Hydraulic Control Design to Simultaneously Achieve High Accuracy and High Efficiency. IEEE Transactions on Control Systems Technology, 2021, 29, 236-248.	5.4	69
33	Fast and Accurate Motion Tracking of a Linear Motor System Under Kinematic and Dynamic Constraints: An Integrated Planning and Control Approach. IEEE Transactions on Control Systems Technology, 2021, 29, 804-811.	5.4	53
34	Precision Motion Control of Constrained SISO Nonlinear System via Direct Optimized Compensation. , 2021, , .		1
35	Self-powered soft robot in the Mariana Trench. Nature, 2021, 591, 66-71.	36.2	660
36	Hybrid Reference Governor-Based Adaptive Robust Control of a Linear Motor Driven System. , 2021, , .		5

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37	Energy-saving and accurate motion control of a hydraulic actuator with uncertain negative loads. Chinese Journal of Aeronautics, 2021, 34, 253-264.	5.4	28
38	Visual Tracking Control of Cable-Driven Hyper-Redundant Snake-Like Manipulator. Applied Sciences (Switzerland), 2021, 11, 6224.	2.6	4
39	RRT-GoalBias and Path Smoothing Based Motion Planning of Mobile Manipulators with Obstacle Avoidance. , 2021, , .		8
40	Direct Optimization Based Compensation Adaptive Robust Control of Nonlinear Systems With State and Input Constraints. IEEE Transactions on Industrial Informatics, 2021, 17, 5441-5449.	12.1	19
41	Unified Motion/Force/Impedance Control for Manipulators in Unknown Contact Environments Based on Robust Model-Reaching Approach. IEEE/ASME Transactions on Mechatronics, 2021, 26, 1905-1913.	6.1	31
42	Accurate Motion Control of a Direct-Drive Hydraulic System With an Adaptive Nonlinear Pump Flow Compensation. IEEE/ASME Transactions on Mechatronics, 2021, 26, 2593-2603.	6.1	44
43	Adaptive Fuzzy Backstepping Control for Stable Nonlinear Bilateral Teleoperation Manipulators With Enhanced Transparency Performance. IEEE Transactions on Industrial Electronics, 2020, 67, 746-756.	8.2	169
44	Integrated Coordinated/Synchronized Contouring Control of a Dual-Linear-Motor-Driven Gantry. IEEE Transactions on Industrial Electronics, 2020, 67, 3944-3954.	8.2	91
45	RBFNN-Based Adaptive Sliding Mode Control Design for Delayed Nonlinear Multilateral Telerobotic System With Cooperative Manipulation. IEEE Transactions on Industrial Informatics, 2020, 16, 1236-1247.	12.1	120
46	Decoupled Torque Control of Series Elastic Actuator With Adaptive Robust Compensation of Time-Varying Load-Side Dynamics. IEEE Transactions on Industrial Electronics, 2020, 67, 5604-5614.	8.2	33
47	Precision Motion Control of a Servomotor-Pump Direct-Drive Electrohydraulic System With a Nonlinear Pump Flow Mapping. IEEE Transactions on Industrial Electronics, 2020, 67, 8638-8648.	8.2	68
48	Computed Tomography to Cone Beam Computed Tomography Deformable Image Registration for Contour Propagation Using Head and Neck, Patient-Based Computational Phantoms: AÂMulticenter Study. Practical Radiation Oncology, 2020, 10, 125-132.	2.1	12
49	RBF-Neural-Network-Based Adaptive Robust Control for Nonlinear Bilateral Teleoperation Manipulators With Uncertainty and Time Delay. IEEE/ASME Transactions on Mechatronics, 2020, 25, 906-918.	6.1	179
50	Teleoperation Control Design with Virtual Force Feedback for the Cable-Driven Hyper-Redundant Continuum Manipulator. Applied Sciences (Switzerland), 2020, 10, 8031.	2.6	7
51	Adaptive Sliding Mode Control Design for Nonlinear Unmanned Surface Vessel With Fuzzy Logic System and Disturbance-Observer. , 2020, , .		5
52	Development of parallel-connected pumpâ€“valve-coordinated control unit with improved performance and efficiency. Mechatronics, 2020, 70, 102419.	3.4	10
53	A Novel Virtual-Structure Formation Control Design for Mobile Robots with Obstacle Avoidance. Applied Sciences (Switzerland), 2020, 10, 5807.	2.6	22
54	IEEE Access Special Section Editorial: Advanced Modeling and Control of Complex Mechatronic Systems With Nonlinearity and Uncertainty. IEEE Access, 2020, 8, 215544-215549.	4.4	0

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55	Precision Motion Control of a 6-DoFs Industrial Robot With Accurate Payload Estimation. IEEE/ASME Transactions on Mechatronics, 2020, 25, 1821-1829.	6.1	42
56	Adaptive Sliding Mode Control Design for Nonlinear Unmanned Surface Vessel Using RBFNN and Disturbance-Observer. IEEE Access, 2020, 8, 45457-45467.	4.4	24
57	Adaptive Robust Motion Control of a Pump Direct Drive Electro-hydraulic System with Meter-Out Pressure Regulation. IFAC-PapersOnLine, 2020, 53, 9005-9010.	1.0	7
58	A Novel Multilateral Control Design for Delayed Nonlinear Teleoperation System With RBFNN-based Environments. IFAC-PapersOnLine, 2020, 53, 10070-10075.	1.0	0
59	Disturbance-Observer-Based Sliding Mode Control Design for Nonlinear Unmanned Surface Vessel With Uncertainties. IEEE Access, 2019, 7, 148522-148530.	4.4	29
60	A Hybrid Path Planning Algorithm for Unmanned Surface Vehicles in Complex Environment With Dynamic Obstacles. IEEE Access, 2019, 7, 126439-126449.	4.4	62
61	Energy Saving Motion Control of Independent Metering Valves and Pump Combined Hydraulic System. IEEE/ASME Transactions on Mechatronics, 2019, 24, 1909-1920.	6.1	43
62	Disturbance-Observer-Based Sliding Mode Control Design for Nonlinear Bilateral Teleoperation System With Four-Channel Architecture. IEEE Access, 2019, 7, 72672-72683.	4.4	16
63	Parameter Identification and Model-Based Nonlinear Robust Control of Fluidic Soft Bending Actuators. IEEE/ASME Transactions on Mechatronics, 2019, 24, 1346-1355.	6.1	56
64	Design and Kinematic Control of the Cable-Driven Hyper-Redundant Manipulator for Potential Underwater Applications. Applied Sciences (Switzerland), 2019, 9, 1142.	2.6	33
65	Optimization-based motion planning of mobile manipulator with high degree of kinematic redundancy. International Journal of Intelligent Robotics and Applications, 2019, 3, 115-130.	2.8	21
66	RBFNN-Based Adaptive Sliding Mode Control Design for Nonlinear Bilateral Teleoperation System Under Time-Varying Delays. IEEE Access, 2019, 7, 11905-11912.	4.4	31
67	Constrained Time-Optimal Motion Control of a Linear Motor Driven System: Theory and Experiments. , 2019, , .		0
68	A Novel Control Design of Bilateral Teleoperation System with Fuzzy Logic based General Environments. , 2019, , .		2
69	A General Online Trajectory Planning Framework in the Case of Desired Function Unknown in Advance. IEEE Transactions on Industrial Informatics, 2019, 15, 2753-2762.	12.1	15
70	Development of Pump and Valves Combined Hydraulic System for Both High Tracking Precision and High Energy Efficiency. IEEE Transactions on Industrial Electronics, 2019, 66, 7189-7198.	8.2	79
71	Identification and adaptive robust precision motion control of systems with nonlinear friction. Nonlinear Dynamics, 2019, 95, 995-1007.	5.3	12
72	Model-Based Coordinated Control of Four-Wheel Independently Driven Skid Steer Mobile Robot with Wheelâ€“Ground Interaction and Wheel Dynamics. IEEE Transactions on Industrial Informatics, 2019, 15, 1742-1752.	12.1	68

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73	Advanced Synchronization Control of a Dual-Linear-Motor-Driven Gantry With Rotational Dynamics. IEEE Transactions on Industrial Electronics, 2018, 65, 7526-7535.	8.2	91
74	An Improved Wave-Variable Based Four-Channel Control Design in Bilateral Teleoperation System for Time-Delay Compensation. IEEE Access, 2018, 6, 12848-12857.	4.4	52
75	Precision Cascade Force Control of Multi-DOF Hydraulic Leg Exoskeleton. IEEE Access, 2018, 6, 8574-8583.	4.4	20
76	Adaptive Robust Synchronization Control of a Dual-Linear-Motor-Driven Gantry With Rotational Dynamics and Accurate Online Parameter Estimation. IEEE Transactions on Industrial Informatics, 2018, 14, 3013-3022.	12.1	46
77	Modular Development of Master-Slave Asymmetric Teleoperation Systems With a Novel Workspace Mapping Algorithm. IEEE Access, 2018, 6, 15356-15364.	4.4	20
78	Gait-Event-Based human intention recognition approach for lower limb. , 2018, , .		3
79	An Improved Online Trajectory Planner With Stability-Guaranteed Critical Test Curve Algorithm for Generalized Parametric Constraints. IEEE/ASME Transactions on Mechatronics, 2018, 23, 2459-2469.	6.1	23
80	Adaptive thrust allocation based synchronization control of a dual drive gantry stage. Mechatronics, 2018, 54, 68-77.	3.4	9
81	A Novel Wave-Variable Based Time-Delay Compensated Four-Channel Control Design for Multilateral Teleoperation System. IEEE Access, 2018, 6, 25506-25516.	4.4	27
82	High precision and high efficiency control of pump and valves combined hydraulic system. , 2018, , .		2
83	Performance-Oriented Coordinated Adaptive Robust Control for Four-Wheel Independently Driven Skid Steer Mobile Robot. IEEE Access, 2017, 5, 19048-19057.	4.4	37
84	Time Optimal Contouring Control of Industrial Biaxial Gantry: A Highly Efficient Analytical Solution of Trajectory Planning. IEEE/ASME Transactions on Mechatronics, 2017, 22, 247-257.	6.1	118
85	Adaptive Robust Control of a Pump Control Hydraulic System. , 2017, , .		6
86	Advanced control and analysis of mechatronics systems with modelling uncertainty. Advances in Mechanical Engineering, 2016, 8, 168781401667834.	1.6	0
87	Integrated adaptive robust control for multilateral teleoperation systems under arbitrary time delays. International Journal of Robust and Nonlinear Control, 2016, 26, 2708-2728.	3.8	188
88	Adaptive Robust Backstepping Force Control of 1-DOF Joint Exoskeleton for Human Performance Augmentation**This work is supported by National Natural Science Foundation of China (No.51475412) Tj ETQq0 0 0 rgBT /Overlock 10 of China (No.51221004), the National Basic Research and Development Program of China under 973 Program Grant 2013CB035400 and SANLIAN (SHANGHAI) GROUP (No.H20131864).. IFAC-PapersOnLine, 2015, 48, 142-147.	1.0	4
89	Online Real-Time Estimation of Response Time for Periodic Messages in Controller Area Networks. Mathematical Problems in Engineering, 2015, 2015, 1-13.	1.2	2
90	<inline-formula><tex-math notation="LaTeX">mu</tex-math></inline-formula>-Synthesis-Based Adaptive Robust Control of Linear Motor Driven Stages With High-Frequency Dynamics: A Case Study. IEEE/ASME Transactions on Mechatronics, 2015, 20, 1482-1490.	6.1	225

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91	A novel adaptive robust control architecture for bilateral teleoperation systems under timeâ€varying delays. International Journal of Robust and Nonlinear Control, 2015, 25, 3349-3366.	3.8	47
92	Adaptive robust control of bilateral teleoperation systems with unmeasurable environmental force and arbitrary time delays. IET Control Theory and Applications, 2014, 8, 1456-1464.	2.2	23
93	Accurate Motion Control of Linear Motors With Adaptive Robust Compensation of Nonlinear Electromagnetic Field Effect. IEEE/ASME Transactions on Mechatronics, 2013, 18, 1122-1129.	6.1	205
94	Adaptive Robust Precision Motion Control of Linear Motors With Integrated Compensation of Nonlinearities and Bearing Flexible Modes. IEEE Transactions on Industrial Informatics, 2013, 9, 965-973.	12.1	89
95	A Two-Loop Performance-Oriented Tip-Tracking Control of a Linear-Motor-Driven Flexible Beam System With Experiments. IEEE Transactions on Industrial Electronics, 2013, 60, 1011-1022.	8.2	68
96	Î¼-Synthesis Based Adaptive Robust Control of Linear-Motor-Driven Stages with High-Frequency Flexible Modes*. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2013, 46, 207-213.	0.4	5
97	Adaptive robust precision motion control of linear motors with high frequency flexible modes. , 2012, , .		2
98	Academic Time at a Level 1 Trauma Center: No Resident, No Problem?. Journal of Surgical Education, 2012, 69, 138-142.	2.6	4
99	Adaptive Robust Repetitive Control of an Industrial Biaxial Precision Gantry for Contouring Tasks. IEEE Transactions on Control Systems Technology, 2011, 19, 1559-1568.	5.4	65
100	Accurate Motion Control of Linear Motors With Adaptive Robust Compensation of Nonlinear Electromagnetic Field Effect. , 2011, , .		2
101	Adaptive robust precision motion control of linear motors with electromagnetic nonlinearity compensation. , 2011, , .		3
102	Long-term effects of mycophenolic acid on the immunoglobulin and inflammatory marker-gene expression in sheep white blood cells. Mycotoxin Research, 2010, 26, 235-240.	2.3	7
103	Adaptive robust control of linear motors with dynamic friction compensation using modified LuGre model. Automatica, 2009, 45, 2890-2896.	5.2	163
104	Desired Compensation Adaptive Robust Control of a Linear-Motor-Driven Precision Industrial Gantry With Improved Cogging Force Compensation. IEEE/ASME Transactions on Mechatronics, 2008, 13, 617-624.	6.1	116
105	Silicon as a plastic material. Journal of Micromechanics and Microengineering, 1999, 9, 305-312.	2.6	40
106	Stereospecific modulation of the calcium channel in human erythrocytes by cholesterol and its oxidized derivatives. Biochemical Journal, 1985, 227, 105-112.	3.8	48