

Zhangguo Yu

List of Publications by Year in descending order

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Version: 2024-02-01

125
papers

911
citations

567281

15
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642732

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g-index

126
all docs

126
docs citations

126
times ranked

610
citing authors

#	ARTICLE	IF	CITATIONS
1	Bioinspired Control of Walking With Toe-Off, Heel-Strike, and Disturbance Rejection for a Biped Robot. IEEE Transactions on Industrial Electronics, 2017, 64, 7962-7971.	7.9	43
2	Design and Development of the Humanoid Robot BHR-5. Advances in Mechanical Engineering, 2014, 6, 852937.	1.6	40
3	Decentralised adaptive control of cooperating Robotic manipulators with disturbance observers. IET Control Theory and Applications, 2014, 8, 515-521.	2.1	37
4	Gait Planning of Omnidirectional Walk on Inclined Ground for Biped Robots. IEEE Transactions on Systems, Man, and Cybernetics: Systems, 2016, 46, 888-897.	9.3	34
5	Design and similarity evaluation on humanoid motion based on human motion capture. Robotica, 2010, 28, 737-745.	1.9	30
6	Disturbance Rejection for Biped Walking Using Zero-Moment Point Variation Based on Body Acceleration. IEEE Transactions on Industrial Informatics, 2019, 15, 2265-2276.	11.3	29
7	Contact Force/Torque Control Based on Viscoelastic Model for Stable Bipedal Walking on Indefinite Uneven Terrain. IEEE Transactions on Automation Science and Engineering, 2019, 16, 1627-1639.	5.2	26
8	Ball Tracking and Trajectory Prediction for Table-Tennis Robots. Sensors, 2020, 20, 333.	3.8	26
9	Hand-eye servo and impedance control for manipulator arm to capture target satellite safely. Robotica, 2015, 33, 848-864.	1.9	23
10	Dynamic model based ball trajectory prediction for a robot ping-pong player. , 2010, , .		22
11	Resistant Compliance Control for Biped Robot Inspired by Humanlike Behavior. IEEE/ASME Transactions on Mechatronics, 2022, 27, 3463-3473.	5.8	21
12	Adaptability Control Towards Complex Ground Based on Fuzzy Logic for Humanoid Robots. IEEE Transactions on Fuzzy Systems, 2022, 30, 1574-1584.	9.8	21
13	Modeling and design of a humanoid robotic face based on an active drive points model. Advanced Robotics, 2014, 28, 379-388.	1.8	20
14	The Mechanism of Yaw Torque Compensation in the Human and Motion Design for Humanoid Robots. International Journal of Advanced Robotic Systems, 2013, 10, 57.	2.1	19
15	Structural Design and Crawling Pattern Generator of a Planar Quadruped Robot for High-Payload Locomotion. Sensors, 2020, 20, 6543.	3.8	19
16	Distributed Control System for a Humanoid Robot. , 2007, , .		16
17	Master-Slave Control of an Intention-Actuated Exoskeletal Robot for Locomotion and Lower Extremity Rehabilitation. International Journal of Precision Engineering and Manufacturing, 2018, 19, 983-991.	2.2	16
18	Computationally Efficient Coordinate Transformation for Field-Oriented Control Using Phase Shift of Linear Hall-Effect Sensor Signals. IEEE Transactions on Industrial Electronics, 2020, 67, 3442-3451.	7.9	16

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19	A model to predict ground reaction force for elastically-suspended backpacks. <i>Gait and Posture</i> , 2020, 82, 118-125.	1.4	15
20	Computer control system and walking pattern control for a humanoid robot. , 2008, , .		14
21	Dynamic Torso Compliance Control for Standing and Walking Balance of Position-Controlled Humanoid Robots. <i>IEEE/ASME Transactions on Mechatronics</i> , 2021, 26, 679-688.	5.8	14
22	Design of a humanoid ping-pong player robot with redundant joints. , 2013, , .		13
23	Robust push recovery by whole-body dynamics control with extremal accelerations. <i>Robotica</i> , 2014, 32, 467-476.	1.9	13
24	Flexible foot design for a humanoid robot. , 2008, , .		12
25	Generation of humanoid walking pattern based on human walking measurement. , 2008, , .		12
26	Motion Planning for Bipedal Robot to Perform Jump Maneuver. <i>Applied Sciences (Switzerland)</i> , 2018, 8, 139.	2.5	12
27	Bio-inspired falling motion control for a biped humanoid robot. , 2014, , .		11
28	Integral Acceleration Generation for Slip Avoidance in a Planar Humanoid Robot. <i>IEEE/ASME Transactions on Mechatronics</i> , 2015, 20, 2924-2934.	5.8	11
29	A novel hierarchical control strategy for biped robot walking on uneven terrain. , 2019, , .		11
30	An experimental characterization of human falling down. <i>Mechanical Sciences</i> , 2017, 8, 79-89.	1.0	11
31	A torque limiter for safe joint applied to humanoid robots against falling damage. , 2015, , .		10
32	A falling motion control of humanoid robots based on biomechanical evaluation of falling down of humans. , 2015, , .		10
33	A minimized falling damage method for humanoid robots. <i>International Journal of Advanced Robotic Systems</i> , 2017, 14, 172988141772801.	2.1	9
34	Trot pattern generation for quadruped robot based on the ZMP stability margin. , 2013, , .		8
35	Design of a Redundant Manipulator for Playing Table Tennis towards Human-Like Stroke Patterns. <i>Advances in Mechanical Engineering</i> , 2014, 6, 807458.	1.6	8
36	A walking control strategy combining global sensory reflex and leg synchronization. <i>Robotica</i> , 2016, 34, 973-994.	1.9	8

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37	Design and control of robot legs with bi-articular muscle-tendon complex. , 2017, , .		7
38	Turning Gait Planning Method for Humanoid Robots. Applied Sciences (Switzerland), 2018, 8, 1257.	2.5	7
39	Controllable Height Hopping of a Parallel Legged Robot. Applied Sciences (Switzerland), 2021, 11, 1421.	2.5	7
40	Development of robotic polishing/fettling system on ceramic pots. International Journal of Advanced Robotic Systems, 2021, 18, 172988142110128.	2.1	7
41	Explosive Electric Actuator and Control for Legged Robots. Engineering, 2022, 12, 39-47.	6.7	7
42	Humanoid walking pattern generation based on the ground reaction force features of human walking. , 2012, , .		6
43	Development of leg mechanism using a knee joint with variable reduction ratio adaptive to load. , 2013, , .		6
44	A Robust Vision Module for Humanoid Robotic Ping-Pong Game. International Journal of Advanced Robotic Systems, 2015, 12, 35.	2.1	6
45	A Unified Control Framework for High-Dynamic Motions of Biped Robots. , 2021, , .		6
46	A vertical jump optimization strategy for one-legged robot with variable reduction ratio joint. , 2021, , .		6
47	Bio-Inspired Take-Off Maneuver and Control in Vertical Jumping for Quadruped Robot with Manipulator. Micromachines, 2021, 12, 1189.	2.9	6
48	Falling Prediction based on Machine Learning for Biped Robots. Journal of Intelligent and Robotic Systems: Theory and Applications, 2021, 103, 1.	3.4	6
49	Measurement of human walking and generation of humanoid walking pattern. , 2007, , .		5
50	An improved ZMP trajectory design for the biped robot BHR. , 2011, , .		5
51	Control of one-legged robot hopping in place. , 2013, , .		5
52	Designation and Control of Landing Points for Competitive Robotic Table Tennis. International Journal of Advanced Robotic Systems, 2015, 12, 92.	2.1	5
53	A novel under-actuated bionic hand and its grasping stability analysis. Advances in Mechanical Engineering, 2017, 9, 168781401668885.	1.6	5
54	Historical Development of BHR Humanoid Robots. History of Mechanism and Machine Science, 2019, , 310-323.	0.2	5

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55	A guide-weight criterion-based topology optimization method for maximizing the fundamental eigenfrequency of the continuum structure. <i>Structural and Multidisciplinary Optimization</i> , 2021, 64, 2135-2148.	3.5	5
56	Control design of a biped humanoid robot capable of facial expression. , 2010, , .		4
57	Biped walking planning using Extended Linear Inverted Pendulum Mode with a continuous moving ZMP. , 2011, , .		4
58	Stepping to recover: A 3D-LIPM based push recovery and fall management scheme for biped robots. , 2012, , .		4
59	Inverse dynamics control with acceleration optimization on a force-controlled bipedal robot. , 2012, , .		4
60	Human-like walking patterns with pelvic rotation for a humanoid robot. , 2014, , .		4
61	Anti-skid foot design for a humanoid robot. , 2014, , .		4
62	Biomimetic inspiration for PKM torso design in humanoid robots. , 2015, , .		4
63	Development of a Socially Interactive System with Whole-Body Movements for BHR-4. <i>International Journal of Social Robotics</i> , 2016, 8, 183-192.	4.6	4
64	Development of a Bipedal Robot with Bi-articular Muscle-tendon Complex between Hip and Knee Joint. , 2018, , .		4
65	Mechanical design of a light weight and high stiffness arm for humanoids. , 2009, , .		3
66	Mechanical design and balance control of a Humanoid Waist Joint. , 2010, , .		3
67	System design of an Anthropomorphic arm robot for dynamic interaction task. , 2011, , .		3
68	Bipedal walking with toe-off, heel-strike and compliance with external disturbances. , 2014, , .		3
69	Disturbance Rejection Controller for Biped Walking Using Real-Time ZMP Regulation. <i>CISM International Centre for Mechanical Sciences, Courses and Lectures</i> , 2016, , 179-188.	0.6	3
70	Falling protective method for humanoid robots using arm compliance to reduce damage. , 2016, , .		3
71	Trajectory optimization of humanoid robots swinging leg. , 2017, , .		3
72	Biomimetic upper limb mechanism of humanoid robot for shock resistance based on viscoelasticity. , 2017, , .		3

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73	A Falling Motion Strategy for Humanoids Based on Motion Primitives of Human Falling. Mechanisms and Machine Science, 2018, , 264-272.	0.5	3
74	Fall Protection of Humanoids Inspired by Human Fall Motion. , 2018, , .		3
75	Simultaneous Prevention of Rotational and Translational Slip for a Humanoid Robot. Applied Sciences (Switzerland), 2018, 8, 1554.	2.5	3
76	Introduction of Toe Mechanism with Bi-articular Tendon into Legged Robot. , 2018, , .		3
77	Gait Transition Between Standing and Falling Down for a Humanoid Robot. Mechanisms and Machine Science, 2019, , 2501-2509.	0.5	3
78	Walking Control of Biped Robots on Uneven Terrains Based on SLIP Model. , 2019, , .		3
79	Combination of Hardware and Control to Reduce Humanoids Fall Damage. International Journal of Humanoid Robotics, 2020, 17, 2050002.	1.1	3
80	Dynamic Torso Posture Compliance Control for Standing Balance of Position-Controlled Humanoid Robots. , 2020, , .		3
81	A Novel Foot Contact Probability Estimator for Biped Robot State Estimation. , 2020, , .		3
82	Motion Control for Underactuated Robots Adaptable to Uneven Terrain by Decomposing Body Balance and Velocity Tracking. , 2021, , .		3
83	Design and Implementation of Symmetric Legged Robot for Highly Dynamic Jumping and Impact Mitigation. Sensors, 2021, 21, 6885.	3.8	3
84	A Compliance Control Method Based on Viscoelastic Model for Position-Controlled Humanoid Robots. , 2020, , .		3
85	Autonomous Navigation with Human Observation for a Biped Robot. , 2021, , .		3
86	Real-time foot attitude estimation for a humanoid robot based on inertial sensors and force sensor. , 2009, , .		2
87	On-line trajectory generation for a humanoid robot based on combination of off-line patterns. , 2009, , .		2
88	Design and workspace analysis of a light weight and high stiffness arm. , 2011, , .		2
89	Ping-pong trajectory perception and prediction by a PC based High speed four-camera vision system. , 2011, , .		2
90	Hand-eye servo and flexible control of an anthropomorphic arm. , 2013, , .		2

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91	System design of a 9-DOF robot capable of fast and flexible rally task. , 2014, , .		2
92	Omnidirectional Disturbance Rejection for a Biped Robot by Acceleration Optimization. Intelligent Automation and Soft Computing, 2014, 20, 471-485.	2.1	2
93	Passive buffering arm for a humanoid robot against falling damage. , 2016, , .		2
94	Rolling motion generation of multi-points contact for a humanoid robot. , 2016, , .		2
95	Ankle Torque Control for Steady Walking of Humanoid Robot. , 2019, , .		2
96	A Swing-foot Trajectory Generation Method For Biped Walking*. , 2021, , .		2
97	Stride Length and Stepping Duration Adjustments Based on Center of Mass Stabilization Control. IEEE/ASME Transactions on Mechatronics, 2022, 27, 5005-5015.	5.8	2
98	Design and experiment of an open control system for a humanoid robot. , 2010, , .		1
99	Teleoperation of humanoid motion using 3G communication network. , 2012, , .		1
100	A dual-motor joint model for humanoid robots. , 2013, , .		1
101	A universal pattern generator for biped walking on 3D slopes. , 2014, , .		1
102	Stability control for biped walking based on phase modification during double support period. , 2014, , .		1
103	Fast trajectory planning of reactive operation considering manipulability for a humanoid. , 2014, , .		1
104	Slip prevention of a humanoid robot by coordinating acceleration vector. , 2014, , .		1
105	Exploiting human walking speed transitions using a dynamic bipedal walking robot with controllable stiffness and limb coordination. , 2016, , .		1
106	Cat-inspired mechanical design of self-adaptive toes for a legged robot. , 2016, , .		1
107	Impact motion control of humanoid robot BHR-5 based on the energy integral method. Advances in Mechanical Engineering, 2016, 8, 168781401562602.	1.6	1
108	Falling Prediction and Recovery Control for a Humanoid Robot. , 2018, , .		1

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109	Design of a Super Underactuated Dexterous Robotic Hand. , 2018, , .		1
110	Virtual-model-based compliance control for pushing recovery of position controlled humanoid robots. , 2019, , .		1
111	Dimensionality Reduced Pre-grasp Planning for Bionic Hand Using Q-distance Quality Measurement. , 2019, , .		1
112	Experiments of a Human-Robot Social Interactive System with Whole-Body Movements. Mechanisms and Machine Science, 2014, , 501-508.	0.5	1
113	Controller design and real-time fault diagnosis for a humanoid robot. , 2010, , .		0
114	Integrated translational and rotational COG motion to enhance the stability for humanoid robots. , 2013, , .		0
115	Effect of the “torso protective strategy” for safe falling of a biped humanoid robot. , 2014, , .		0
116	A new flexible controller for a humanoid robot that considers visual and force information interaction. , 2014, , .		0
117	The arm and waist motion design of humanoid robot for fast walking. , 2015, , .		0
118	Design and similarity evaluation on humanoid facial expression. , 2015, , .		0
119	A load-adaptive controller for humanoid robots. , 2015, , .		0
120	Realization of foot rotation by breaking the kinematic contact constraint. Robotica, 2016, 34, 1059-1070.	1.9	0
121	Design of a rigid mechanism for a knee joint with continuously variable reduction ratio. , 2017, , .		0
122	Study on Quasi-passive Walking Robot Based on Impulse Thrust. , 2019, , .		0
123	Planning and Control of Forward Jumping Movement of Humanoid Robot. , 2019, , .		0
124	A Falling Forwards Protection Strategy for Humanoid Robots. CISM International Centre for Mechanical Sciences, Courses and Lectures, 2019, , 314-322.	0.6	0
125	Continuous Jumping Control Based on Virtual Model Control for a One-Leg Robot Platform. CISM International Centre for Mechanical Sciences, Courses and Lectures, 2021, , 24-33.	0.6	0