

# Jaesung Oh

## List of Publications by Year in descending order

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111  
papers

2,183  
citations

393982

19  
h-index

329751

37  
g-index

111  
all docs

111  
docs citations

111  
times ranked

1406  
citing authors

#	ARTICLE	IF	CITATIONS
1	Walking Control Algorithm of Biped Humanoid Robot on Uneven and Inclined Floor. Journal of Intelligent and Robotic Systems: Theory and Applications, 2007, 48, 457-484.	2.0	196
2	Mechanical design of the humanoid robot platform, HUBO. Advanced Robotics, 2007, 21, 1305-1322.	1.1	141
3	Design of Android type Humanoid Robot Albert HUBO. , 2006, , .		129
4	Mechanical design of humanoid robot platform KHR-3 (KAIST humanoid robot - 3: HUBO). , 0, , .		119
5	Development of the Humanoid Disaster Response Platform DRC-HUBO+. IEEE Transactions on Robotics, 2018, 34, 1-17.	7.3	109
6	Experimental realization of dynamic walking of the biped humanoid robot KHR-2 using zero moment point feedback and inertial measurement. Advanced Robotics, 2006, 20, 707-736.	1.1	100
7	Robot System of DRC-HUBO+ and Control Strategy of Team KAIST in DARPA Robotics Challenge Finals. Journal of Field Robotics, 2017, 34, 802-829.	3.2	96
8	System Design and Dynamic Walking of Humanoid Robot KHR-2. , 0, , .		73
9	Balance recovery through model predictive control based on capture point dynamics for biped walking robot. Robotics and Autonomous Systems, 2018, 105, 1-10.	3.0	57
10	Development of an above knee prosthesis using MR damper and leg simulator. , 0, , .		46
11	Online Walking Pattern Generation and Its Application to a Biped Humanoid Robot " KHR-3 (HUBO). Advanced Robotics, 2008, 22, 159-190.	1.1	46
12	Realization of dynamic walking for the humanoid robot platform KHR-1. Advanced Robotics, 2004, 18, 749-768.	1.1	45
13	DEVELOPMENT OF HUMANOID ROBOT PLATFORM KHR-2 (KAIST HUMANOID ROBOT 2). International Journal of Humanoid Robotics, 2005, 02, 519-536.	0.6	42
14	Walking control of the humanoid platform KHR-1 based on torque feedback control. , 2004, , .		41
15	A Robust Walking Controller Based on Online Optimization of Ankle, Hip, and Stepping Strategies. IEEE Transactions on Robotics, 2019, 35, 1367-1386.	7.3	39
16	Online Biped Walking Pattern Generation for Humanoid Robot KHR-3(KAIST Humanoid Robot - 3: HUBO). , 2006, , .		38
17	A Robust Balance-Control Framework for the Terrain-Blind Bipedal Walking of a Humanoid Robot on Unknown and Uneven Terrain. Sensors, 2019, 19, 4194.	2.1	35
18	Online Balance Controllers for a Hopping and Running Humanoid Robot. Advanced Robotics, 2011, 25, 1209-1225.	1.1	33

#	ARTICLE	IF	CITATIONS
19	Development of a Lightweight and High-efficiency Compact Cycloidal Reducer for Legged Robots. International Journal of Precision Engineering and Manufacturing, 2020, 21, 415-425.	1.1	25
20	Study on optimal velocity selection using velocity obstacle (OVVO) in dynamic and crowded environment. Autonomous Robots, 2016, 40, 1459-1470.	3.2	24
21	Inverse Kinematic Control of Humanoids under Joint Constraints. International Journal of Advanced Robotic Systems, 2013, 10, 74.	1.3	23
22	Biped robot state estimation using compliant inverted pendulum model. Robotics and Autonomous Systems, 2018, 108, 38-50.	3.0	23
23	Control hardware integration of a biped humanoid robot with an android head. Robotics and Autonomous Systems, 2008, 56, 95-103.	3.0	22
24	Experiments of vision guided walking of humanoid robot, KHR-2. , 0, , .		21
25	Realization of Dynamic Stair Climbing for Biped Humanoid Robot Using Force/Torque Sensors. Journal of Intelligent and Robotic Systems: Theory and Applications, 2009, 56, 389-423.	2.0	21
26	Force Control of a Hydraulic Actuator With a Neural Network Inverse Model. IEEE Robotics and Automation Letters, 2021, 6, 2814-2821.	3.3	21
27	Biped Walking Pattern Generation Using an Analytic Method for a Unit Step With a Stationary Time Interval Between Steps. IEEE Transactions on Industrial Electronics, 2015, 62, 1091-1100.	5.2	19
28	Backward Ladder Climbing Locomotion of Humanoid Robot with Gain Overriding Method on Position Control. Journal of Field Robotics, 2016, 33, 687-705.	3.2	19
29	Posture Stabilization Strategy for a Trotting Point-foot Quadruped Robot. Journal of Intelligent and Robotic Systems: Theory and Applications, 2013, 72, 325-341.	2.0	17
30	Collision Detection and Safe Reaction Algorithm for Non-backdrivable Manipulator with Single Force/Torque Sensor. Journal of Intelligent and Robotic Systems: Theory and Applications, 2018, 91, 403-412.	2.0	17
31	Legged Robot State Estimation With Dynamic Contact Event Information. IEEE Robotics and Automation Letters, 2021, 6, 6733-6740.	3.3	17
32	On the Design and Development of a Quadruped Robot Platform. Advanced Robotics, 2010, 24, 277-298.	1.1	16
33	Biped walking stabilization based on foot placement control using capture point feedback. , 2017, , .		16
34	Adaptive walking pattern generation and balance control of the passenger-carrying biped robot, HUBO FX-1, for variable passenger weights. Autonomous Robots, 2011, 30, 427-443.	3.2	15
35	Development of a Rapid Mobile Robot with a Multi-Degree-of-Freedom Inverted Pendulum Using the Model-Based Zero-Moment Point Stabilization Method. Advanced Robotics, 2012, 26, 515-535.	1.1	15
36	Humanoid Posture Selection for Reaching Motion and a Cooperative Balancing Controller. Journal of Intelligent and Robotic Systems: Theory and Applications, 2016, 81, 301-316.	2.0	15

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37	Hysteresis Modeling for Torque Control of an Elastomer Series Elastic Actuator. IEEE/ASME Transactions on Mechatronics, 2019, 24, 1316-1324.	3.7	15
38	A robust walking controller optimizing step position and step time that exploit advantages of footed robot. Robotics and Autonomous Systems, 2019, 113, 10-22.	3.0	14
39	Hybrid Learning of Mapping and its Jacobian in Multilayer Neural Networks. Neural Computation, 1997, 9, 937-958.	1.3	13
40	Humanoid throwing: Design of collision-free trajectories with sparse reachable maps. , 2012, , .		13
41	Robotic software system for the disaster circumstances: System of team KAIST in the DARPA Robotics Challenge Finals. , 2015, , .		13
42	Design and control of the rapid legged platform GAZELLE. Mechatronics, 2020, 66, 102319.	2.0	13
43	Adjustment of Home Posture of Biped Humanoid Robot Using Sensory Feedback Control. Journal of Intelligent and Robotic Systems: Theory and Applications, 2008, 51, 421-438.	2.0	12
44	Development of the Cartesian arm exoskeleton system (CAES) using a 3-axis force/torque sensor. International Journal of Control, Automation and Systems, 2013, 11, 976-983.	1.6	12
45	Novel state estimation framework for humanoid robot. Robotics and Autonomous Systems, 2017, 98, 258-275.	3.0	12
46	Real-time humanoid whole-body remote control framework for imitating human motion based on kinematic mapping and motion constraints. Advanced Robotics, 2019, 33, 293-305.	1.1	12
47	Nonlinear tracking control of trailer systems using the Lyapunov direct method. Journal of Field Robotics, 1999, 16, 1-8.	0.7	11
48	Walking-wheeling dual mode strategy for humanoid robot, DRC-HUBO+. , 2016, , .		11
49	Improvement Trend of a Humanoid Robot Platform HUBO2+. Journal of Institute of Control, Robotics and Systems, 2014, 20, 356-363.	0.1	11
50	Globally asymptotically stable tracking control of mobile robots. , 0, , .		10
51	Globally asymptotically stable tracking control for a trailer system. Journal of Field Robotics, 2002, 19, 199-205.	0.7	10
52	Collision detection system for the practical use of the humanoid robot. , 2015, , .		10
53	Active Suspension for a Rapid Mobile Robot Using Cartesian Computed Torque Control. Journal of Intelligent and Robotic Systems: Theory and Applications, 2015, 79, 221-235.	2.0	10
54	Development of a Tele-Operated Rescue Robot for a Disaster Response. International Journal of Humanoid Robotics, 2018, 15, 1850008.	0.6	10

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55	Real-time continuous ZMP pattern generation of a humanoid robot using an analytic method based on capture point. <i>Advanced Robotics</i> , 2019, 33, 33-48.	1.1	10
56	Design of a Compact Embedded Hydraulic Power Unit for Bipedal Robots. <i>IEEE Robotics and Automation Letters</i> , 2021, 6, 3631-3638.	3.3	10
57	Development of a multi-agent system for robot soccer game. , 0, , .		9
58	Experiments of backward tracking control for trailer system. , 0, , .		9
59	Development of humanoid robot platform KHR-2 (KAIST humanoid robot-2). , 0, , .		9
60	Analytic Inverse Kinematics Considering the Joint Constraints and Self-Collision for Redundant 7DOF Manipulator. , 2017, , .		9
61	Position/torque hybrid control of a rigid, high-gear ratio quadruped robot. <i>Advanced Robotics</i> , 2018, 32, 969-983.	1.1	9
62	Sliding mode control with delay compensation for uncertain input-delay systems. , 1999, , .		8
63	Disturbance estimation using sliding mode for discrete Kalman filter. , 0, , .		7
64	Stabilization of a rapid four-wheeled mobile platform using the ZMP stabilization method. , 2010, , .		7
65	A modified perturbation/correlation method for force-guided assembly. <i>Journal of Mechanical Science and Technology</i> , 2015, 29, 5437-5446.	0.7	7
66	Control strategies for a humanoid robot to drive and then egress a utility vehicle for remote approach. , 2015, , .		7
67	Low-cost indoor positioning system using BLE (bluetooth low energy) based sensor fusion with constrained extended Kalman Filter. , 2016, , .		7
68	Humanoid state estimation using a moving horizon estimator. <i>Advanced Robotics</i> , 2017, 31, 695-705.	1.1	7
69	Camera-laser fusion sensor system and environmental recognition for humanoids in disaster scenarios. <i>Journal of Mechanical Science and Technology</i> , 2017, 31, 2997-3003.	0.7	7
70	Avoiding Obstacles during Push Recovery Using Real-Time Vision Feedback. , 2019, , .		7
71	Discrete-time quasi-sliding mode tracking control of uncertain systems with long sampling interval. <i>International Journal of Systems Science</i> , 1998, 29, 899-906.	3.7	6
72	Design and Analysis of Rotary MR Damper Using Permanent Magnet. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2002, 35, 823-827.	0.4	6

#	ARTICLE	IF	CITATIONS
73	Adjustment of home posture of a biped humanoid robot using an inertial sensor and force torque sensors. , 2007, , .		6
74	EXPERIMENTAL REALIZATION OF DYNAMIC STAIR CLIMBING AND DESCENDING OF BIPED HUMANOID ROBOT, HUBO. International Journal of Humanoid Robotics, 2009, 06, 205-240.	0.6	6
75	Humanoid whole-body remote-control framework with delayed reference generator for imitating human motion. Mechatronics, 2019, 62, 102253.	2.0	6
76	Motion Generation Interface of ROS to PODO Software Framework for Wheeled Humanoid Robot. , 2019, , .		5
77	Design of 4 joints 3 links biped robot and its gaits. , 0, , .		4
78	Stretch-legged walking in sagittal plane. , 2007, , .		4
79	Inverse kinematics with strict nonholonomic constraints on mobile manipulator. , 2017, , .		4
80	Constrained Whole Body Motion Planning in Task Configuration and Time. International Journal of Precision Engineering and Manufacturing, 2018, 19, 1651-1658.	1.1	4
81	Implementing Full-body Torque Control in Humanoid Robot with High Gear Ratio Using Pulse Width Modulation Voltage. , 2018, , .		4
82	Online Delayed Reference Generation for a Humanoid Imitating Human Walking Motion. IEEE/ASME Transactions on Mechatronics, 2020, , 1-1.	3.7	4
83	Development of Humanoid Robots in HUBO Laboratory, KAIST. Journal of the Robotics Society of Japan, 2012, 30, 367-371.	0.0	4
84	DYNAMIC BALANCE OF A HOPPING HUMANOID ROBOT USING A LINEARIZATION METHOD. International Journal of Humanoid Robotics, 2012, 09, 1250020.	0.6	3
85	Motion planning for a rapid mobile manipulator using model-based ZMP stabilization. Robotica, 2014, 32, .	1.3	3
86	Dynamics based motion optimization and operational space control with an experimental rescue robot, HUBO T-100. , 2015, , .		3
87	Development of an optimal velocity selection method with velocity obstacle. Journal of Mechanical Science and Technology, 2015, 29, 3475-3487.	0.7	3
88	BLDC motor current control using filtered single DC link current based on adaptive extended Kalman filter. , 2017, , .		3
89	Robots for the PyeongChang 2018 Winter Olympic Games. Science Robotics, 2018, 3, .	9.9	3
90	Mechanism Design Outline of Hubo. , 2019, , 615-635.		3

#	ARTICLE	IF	CITATIONS
91	Dynamic Nonprehensile Manipulation of a Moving Object Using a Batting Primitive. Applied Sciences (Switzerland), 2021, 11, 3920.	1.3	3
92	Dynamic Humanoid Locomotion Over Rough Terrain With Streamlined Perception-Control Pipeline. , 2021, , .		3
93	An aperiodic Z type spinning gait planning method for a quadruped walking robot. Autonomous Robots, 1995, 2, 163-173.	3.2	2
94	An aperiodic straight motion planning method for a quadruped walking robot. Autonomous Robots, 1995, 2, 29-41.	3.2	2
95	A design of touch detection algorithm for bonding tip of wire bonder machine. , 0, , .		2
96	Hopping system control with an approximated dynamics model and upper-body motion. Journal of Mechanical Science and Technology, 2015, 29, 4891-4900.	0.7	2
97	Bipedal walking pattern generation based on an extrapolated center of mass. , 2016, , .		2
98	Humanoid Robot COM Kinematics Estimation based on Compliant Inverted Pendulum Model and Robust State Estimator. , 2018, , .		2
99	A study on the support pattern of a quadruped walking robot for aperiodic motion. , 0, , .		1
100	Estimation of depth and 3D motion parameters of moving objects with multiple stereo images by using Kalman filter. , 0, , .		1
101	Walking and Control of Autonomous Biped Robot. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2001, 34, 173-177.	0.4	1
102	Design of a stable gain scheduling controller for optical disc players. IEEE Transactions on Consumer Electronics, 2004, 50, 188-191.	3.0	1
103	Development of autonomous laser toning system based on vision recognition and robot manipulator. , 2016, , .		1
104	History of HUBO, Korean Humanoid Robot. , 2017, , 1-13.		1
105	Biped Robot Pelvis Kinematics Estimation based on the Touch-Point Updating Method. , 2019, , .		1
106	Joint Space Position/Torque Hybrid Control of the Quadruped Robot for Locomotion and Push Reaction. , 2020, , .		1
107	Energy Efficient Control of Onboard Hydraulic Power Unit for Hydraulic Bipedal Robots. The Journal of Korea Robotics Society, 2021, 16, 86-93.	0.2	1
108	Upper body motion interpolation for humanoid robots. , 2011, , .		0

#	ARTICLE	IF	CITATIONS
109	A New State Estimation Framework for Humanoids based on a Moving Horizon Estimator. IFAC-PapersOnLine, 2017, 50, 3793-3799.	0.5	0
110	Mechanism Design Outline of Hubo. , 2017, , 1-21.		0
111	History of HUBO: Korean Humanoid Robot. , 2019, , 117-129.		0