Jaeheung Park

List of Publications by Year
in descending order

67 papers	1,308 citations	516710 16 h-index	395702 33 g-index
68 all docs	68 docs citations	68 times ranked	1143 citing authors

#	Article	IF	Citations
1	Compliant Control of Multicontact and Center-of-Mass Behaviors in Humanoid Robots. IEEE Transactions on Robotics, 2010, 26, 483-501.	10.3	280
2	Compliance-Based Robotic Peg-in-Hole Assembly Strategy Without Force Feedback. IEEE Transactions on Industrial Electronics, 2017, 64, 6299-6309.	7.9	122
3	Synthesis of natural arm swing motion in human bipedal walking. Journal of Biomechanics, 2008, 41, 1417-1426.	2.1	98
4	Intermediate Desired Value Approach for Task Transition of Robots in Kinematic Control. IEEE Transactions on Robotics, 2012, 28, 1260-1277.	10.3	69
5	Balancing of humanoid robot using contact force/moment control by task-oriented whole body control framework. Autonomous Robots, 2016, 40, 457-472.	4.8	49
6	Contact consistent control framework for humanoid robots. , 0, , .		41
7	Robot multiple contact control. Robotica, 2008, 26, 667-677.	1.9	41
8	Accurate Path Tracking by Adjusting Look-Ahead Point in Pure Pursuit Method. International Journal of Automotive Technology, 2021, 22, 119-129.	1.4	36
9	Music similarity-based approach to generating dance motion sequence. Multimedia Tools and Applications, 2013, 62, 895-912.	3.9	34
10	Robot Control near Singularity and Joint Limit Using a Continuous Task Transition Algorithm. International Journal of Advanced Robotic Systems, 2013, 10, 346.	2.1	34
11	The Hierarchical Operational Space Formulation: Stability Analysis for the Regulation Case. IEEE Robotics and Automation Letters, 2018, 3, 1120-1127.	5.1	33
12	Continuous Task Transition Approach for Robot Controller Based on Hierarchical Quadratic Programming. IEEE Robotics and Automation Letters, 2019, 4, 1603-1610.	5.1	28
13	Compliant Joint Actuator With Dual Spiral Springs. IEEE/ASME Transactions on Mechatronics, 2013, 18, 1839-1844.	5.8	27
14	Probabilistic Estimation of Whole Body Contacts for Multi-Contact Robot Control. Proceedings - IEEE International Conference on Robotics and Automation, 2007, , .	0.0	26
15	Torque-position transformer for task control of position controlled robots. , 2008, , .		23
16	Compliant Peg-in-Hole Assembly Using Partial Spiral Force Trajectory With Tilted Peg Posture. IEEE Robotics and Automation Letters, 2020, 5, 4447-4454.	5.1	23
17	Intuitive peg-in-hole assembly strategy with a compliant manipulator. , 2013, , .		19
18	Low stiffness design and hysteresis compensation torque control of SEA for active exercise rehabilitation robots. Autonomous Robots, 2017, 41, 1221-1242.	4.8	19

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19	Grasping Force Estimation by sEMG Signals and Arm Posture: Tensor Decomposition Approach. Journal of Bionic Engineering, 2019, 16, 455-467.	5.0	19
20	Team SNU's Control Strategies for Enhancing a Robot's Capability: Lessons from the 2015 DARPA Robotics Challenge Finals. Journal of Field Robotics, 2017, 34, 359-380.	6.0	16
21	Multi-Link Multi-Contact Force Control for Manipulators. , 0, , .		13
22	Desired orientation RRT (DO-RRT) for autonomous vehicle in narrow cluttered spaces. , 2016, , .		13
23	Parking Line Based SLAM Approach Using AVM/LiDAR Sensor Fusion for Rapid and Accurate Loop Closing and Parking Space Detection. Sensors, 2019, 19, 4811.	3.8	12
24	A Whole-Body Control Framework Based on the Operational Space Formulation Under Inequality Constraints via Task-Oriented Optimization. IEEE Access, 2021, 9, 39813-39826.	4.2	12
25	Robot Hand Synergy Mapping Using Multi-factor Model and EMG Signal. Springer Tracts in Advanced Robotics, 2016, , 671-683.	0.4	12
26	The relationship between controlled joint torque and end-effector force in underactuated robotic systems. Robotica, 2011, 29, 581-584.	1.9	11
27	Aesthetic design and development of humanoid legged robot. , 2014, , .		11
28	An active sensing strategy for contact location without tactile sensors using robot geometry and kinematics. Autonomous Robots, 2014, 36, 109-121.	4.8	11
29	Elastomeric Continuously Variable Transmission Combined With Twisted String Actuator. IEEE Robotics and Automation Letters, 2020, 5, 5477-5484.	5.1	11
30	Transferable Collision Detection Learning for Collaborative Manipulator Using Versatile Modularized Neural Network. IEEE Transactions on Robotics, 2022, 38, 2426-2445.	10.3	10
31	Terrain edge detection for biped walking robots using active sensing with vCoP-position hybrid control. Robotics and Autonomous Systems, 2017, 96, 41-57.	5.1	9
32	Analysis of position tracking in torque control of humanoid robots considering joint elasticity and time delay. , 2017, , .		9
33	Whole-body Control of Non-holonomic Mobile Manipulator Based on Hierarchical Quadratic Programming and Continuous Task Transition. , 2019, , .		9
34	Reactive Self-Collision Avoidance for a Differentially Driven Mobile Manipulator. Sensors, 2021, 21, 890.	3.8	9
35	Mobility and Manipulation. Springer Handbooks, 2016, , 1007-1036.	0.6	8
36	Contact State Estimation for Peg-in-Hole Assembly Using Gaussian Mixture Model. IEEE Robotics and Automation Letters, 2022, 7, 3349-3356.	5.1	8

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37	Model Predictive Control Method for Autonomous Vehicles Using Time-Varying and Non-Uniformly Spaced Horizon. IEEE Access, 2021, 9, 86475-86487.	4.2	7
38	Toward Reactive Walking: Control of Biped Robots Exploiting an Event-Based FSM. IEEE Transactions on Robotics, 2022, 38, 683-698.	10.3	7
39	System Design of Humanoid Robot DYROS-JET. , 2019, , .		6
40	Rigid Grasp Candidate Generation for Assembly Tasks. , 2020, , .		6
41	Design of JET Humanoid Robot with Compliant Modular Actuators for Industrial and Service Applications. Applied Sciences (Switzerland), 2021, 11, 6152.	2.5	6
42	Computationally Efficient HQP-based Whole-body Control Exploiting the Operational-space Formulation. , 2021, , .		6
43	Reactive Bipedal Walking Method for Torque Controlled Robot. , 2018, , .		5
44	Operational Space Control Framework for Torque Controlled Humanoid Robots with Joint Elasticity. , 2019, , .		5
45	Contact States Estimation Algorithm Using Fuzzy Logic in Peg-in-hole Assembly. , 2020, , .		5
46	Regularized Hierarchical Quadratic Program for Real-Time Whole-Body Motion Generation. IEEE/ASME Transactions on Mechatronics, 2021, 26, 2115-2126.	5.8	5
47	Whole-body walking pattern using pelvis-rotation for long stride and arm swing for yaw angular momentum compensation. , 2021, , .		5
48	A Comparative Study of Parking Path Following Methods for Autonomous Parking System. The Journal of Korea Robotics Society, 2020, 15, 147-159.	0.4	5
49	A rehabilitation exercise robot for treating low back pain. , 2017, , .		4
50	The Operational Space Formulation on Humanoids Considering Joint Stiffness and Bandwidth Limit. IEEE Access, 2021, 9, 121883-121893.	4.2	4
51	Robotic furniture assembly: task abstraction, motion planning, and control. Intelligent Service Robotics, 2022, 15, 441-457.	2.6	4
52	Three-Dimensional Visualization System with Spatial Information for Navigation of Tele-Operated Robots. Sensors, 2019, 19, 746.	3.8	3
53	A New Lizard-Inspired Robot With S-Shaped Lateral Body Motions. IEEE/ASME Transactions on Mechatronics, 2020, 25, 130-141.	5.8	3
54	Search trajectory with twisting motion for dual peg-in-hole assembly. Intelligent Service Robotics, 2021, 14, 597.	2.6	3

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55	Walking Pattern Generation using MPC with minimization of COM Velocity Fluctuation. , 2020, , .		3
56	Dance motion generation by recombination of body parts from motion source. Intelligent Service Robotics, 2018, 11, 139-148.	2.6	2
57	Explicit formulation of multibody dynamics based on principle of dynamical balance and its parallelization. Multibody System Dynamics, 2016, 37, 175-193.	2.7	1
58	Development of Harmonic Reducing Transmission for Legged Robots. , 2021, , .		1
59	A Comparative Analysis of Path Planning and Tracking Performance According to the Consideration of Vehicle's Constraints in Automated Parking Situations. The Journal of Korea Robotics Society, 2021, 16, 250-259.	0.4	1
60	Real-Time Force Control of Biped Robot to Generate High-Speed Horizontal Motion of Center of Mass. The Journal of Korea Robotics Society, 2016, 11, 183-192.	0.4	1
61	Effect of Heel Area on Utilized Coefficient of Friction During High-Heeled Walking. Advances in Intelligent Systems and Computing, 2019, , 703-709.	0.6	1
62	Contact-Consistent Disturbance Observer for Floating-Base Robots. Springer Proceedings in Advanced Robotics, 2020, , 475-484.	1.3	1
63	Advanced Compliant Anti-Gravity Robot System for Lumbar Stabilization Exercise Using Series Elastic Actuator. IEEE Journal of Translational Engineering in Health and Medicine, 2022, 10, 1-11.	3.7	1
64	Weighted hierarchical quadratic programming: assigning individual joint weights for each task priority. Intelligent Service Robotics, 2022, 15, 475-486.	2.6	1
65	Fast and Safe Contact Establishment Strategy for Biped Walking Robot. The Journal of Korea Robotics Society, 2021, 16, 147-154.	0.4	0
66	Optimization of Pelvic Rotation Walking Pattern Considering Future States Using Model Predictive Control to Increase the Step Length. IEEE Access, 2022, 10, 44471-44482.	4.2	0
67	Calibration of Mobile Robot with Single Wheel Powered Caster. The Journal of Korea Robotics Society, 2022, 17, 183-190.	0.4	0