Dongheui Lee

List of Publications by Year
in descending order

111 papers	1,957 citations	567281 15 h-index	434195 31 g-index
111 all docs	111 docs citations	111 times ranked	1445 citing authors

#	Article	IF	Citations
1	RGB-D SLAM in Dynamic Environments Using Static Point Weighting. IEEE Robotics and Automation Letters, 2017, 2, 2263-2270.	5.1	172
2	Incremental learning of full body motion primitives and their sequencing through human motion observation. International Journal of Robotics Research, 2012, 31, 330-345.	8.5	155
3	Incremental kinesthetic teaching of motion primitives using the motion refinement tube. Autonomous Robots, 2011, 31, 115-131.	4.8	143
4	Motion capture based human motion recognition and imitation by direct marker control. , 2008, , .		84
5	Mimetic Communication Model with Compliant Physical Contact in Human–Humanoid Interaction. International Journal of Robotics Research, 2010, 29, 1684-1704.	8.5	71
6	Real-time human motion tracking using multiple depth cameras. , 2012, , .		62
7	An experience-driven robotic assistant acquiring human knowledge to improve haptic cooperation. , 2011, , .		60
8	Development of a biped robot with torque controlled joints. , 2010, , .		55
9	Learning task-parameterized dynamic movement primitives using mixture of GMMs. Intelligent Service Robotics, 2018, 11, 61-78.	2.6	50
10	Kinesthetic teaching and attentional supervision of structured tasks in human–robot interaction. Autonomous Robots, 2019, 43, 1291-1307.	4.8	50
11	Incremental kinesthetic teaching of end-effector and null-space motion primitives. , 2015, , .		35
12	Cross-modal visuo-tactile object recognition using robotic active exploration. , 2017, , .		35
13	Distance based dynamical system modulation for reactive avoidance of moving obstacles. , 2014, , .		31
14	Novel learning from demonstration approach for repetitive teleoperation tasks. , 2017, , .		31
15	Bilateral Teleoperation With Adaptive Impedance Control for Contact Tasks. IEEE Robotics and Automation Letters, 2021, 6, 5429-5436.	5.1	31
16	Mimesis Model from Partial Observations for a Humanoid Robot. International Journal of Robotics Research, 2010, 29, 60-80.	8.5	29
17	Imitation learning of human grasping skills from motion and force data. , 2011, , .		29
18	A Transfer Learning Approach to Cross-Modal Object Recognition: From Visual Observation to Robotic Haptic Exploration. IEEE Transactions on Robotics, 2019, 35, 987-998.	10.3	29

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19	Merging Position and orientation Motion Primitives. , 2019, , .		28
20	Data-efficient control policy search using residual dynamics learning. , 2017, , .		27
21	Risk-Sensitive Optimal Feedback Control for Haptic Assistance. , 2012, , .		26
22	Online human walking imitation in task and joint space based on quadratic programming. , 2014, , .		26
23	Learning Barrier Functions for Constrained Motion Planning with Dynamical Systems. , 2019, , .		26
24	Learning deep movement primitives using convolutional neural networks. , 2017, , .		25
25	A Bayesian approach for task recognition and future human activity prediction. , 2014, , .		24
26	Kinesthetic teaching of humanoid motion based on whole-body compliance control with interaction-aware balancing. , 2013, , .		23
27	Fast Visual Odometry Using Intensity-Assisted Iterative Closest Point. IEEE Robotics and Automation Letters, 2016, 1, 992-999.	5.1	22
28	Point cloud based dynamical system modulation for reactive avoidance of convex and concave obstacles. , 2013, , .		21
29	Learning and Generalization of Compensative Zero-Moment Point Trajectory for Biped Walking. IEEE Transactions on Robotics, 2016, 32, 717-725.	10.3	20
30	Learning Control. , 2019, , 1261-1312.		20
31	Stochastic Model of Imitating a New Observed Motion Based on the Acquired Motion Primitives. , 2006, , .		19
32	Prioritized Inverse Kinematics with Multiple Task Definitions. , 2015, , .		19
33	Human-aware motion reshaping using dynamical systems. Pattern Recognition Letters, 2017, 99, 96-104.	4.2	18
34	On Policy Learning Robust to Irreversible Events: An Application to Robotic In-Hand Manipulation. IEEE Robotics and Automation Letters, 2018, 3, 1482-1489.	5.1	18
35	Learning stable dynamical systems using contraction theory. , 2017, , .		17
36	Learning interaction control policies by demonstration. , 2011, , .		16

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37	Feedback motion planning and learning from demonstration in physical robotic assistance: differences and synergies. , 2012, , .		16
38	A human-cyber-physical system approach to lean automation using an industrie 4.0 reference architecture. Procedia Manufacturing, 2020, 51, 1082-1090.	1.9	16
39	Incremental object learning and robust tracking of multiple objects from RGB-D point set data. Journal of Visual Communication and Image Representation, 2014, 25, 108-121.	2.8	15
40	Towards interactive physical robotic assistance: Parameterizing motion primitives through natural language. , 2012, , .		13
41	Motion encoding with asynchronous trajectories of repetitive teleoperation tasks and its extension to human-agent shared teleoperation. Autonomous Robots, 2019, 43, 2055-2069.	4.8	13
42	Learning Control. , 2017, , 1-52.		13
43	A bidirectional invariant representation of motion for gesture recognition and reproduction. , 2015, , .		12
44	Invariant representation for user independent motion recognition. , 2013, , .		11
45	An extremum-seeking control approach for constrained robotic motion tasks. Control Engineering Practice, 2016, 52, 1-14.	5.5	11
46	A Method to Identify the Nonlinear Stiffness Characteristics of an Elastic Continuum Mechanism. IEEE Robotics and Automation Letters, 2018, 3, 1450-1457.	5.1	11
47	Special issue on learning for human–robot collaboration. Autonomous Robots, 2018, 42, 953-956.	4.8	11
48	Safety-Aware Hierarchical Passivity-Based Variable Compliance Control for Redundant Manipulators. IEEE Transactions on Robotics, 2022, 38, 3899-3916.	10.3	11
49	Motion recognition and recovery from occluded monocular observations. Robotics and Autonomous Systems, 2014, 62, 818-832.	5.1	10
50	Learning Haptic Exploration Schemes for Adaptive Task Execution. , 2019, , .		10
51	Disagreement-aware physical assistance through risk-sensitive optimal feedback control. , 2012, , .		9
52	Generalization of Force Control Policies from Demonstrations for Constrained Robotic Motion Tasks. Journal of Intelligent and Robotic Systems: Theory and Applications, 2015, 80, 133-148.	3.4	9
53	Physical human robot interaction in imitation learning. , 2011, , .		8
54	Learning and generalizing force control policies for sculpting. , 2012, , .		8

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55	Unsupervised object individuation from RGB-D image sequences. , 2014, , .		8
56	Learning motion and impedance behaviors from human demonstrations. , 2014, , .		8
57	Bidirectional invariant representation of rigid body motions and its application to gesture recognition and reproduction. Autonomous Robots, 2018, 42, 125-145.	4.8	8
58	Learning Control. , 2018, , 1-52.		8
59	Prioritized Inverse Kinematics: Generalization. IEEE Robotics and Automation Letters, 2019, 4, 3537-3544.	5.1	8
60	ESC-MRAC of MIMO systems for constrained robotic motion tasks in deformable environments. , 2014, , .		7
61	A Human Action Descriptor Based on Motion Coordination. IEEE Robotics and Automation Letters, 2017, 2, 811-818.	5.1	7
62	Incremental Skill Learning of Stable Dynamical Systems. , 2018, , .		7
63	Manipulation Planning Using Object-Centered Predicates and Hierarchical Decomposition of Contextual Actions. IEEE Robotics and Automation Letters, 2020, 5, 5629-5636.	5.1	7
64	Stabilization of body balance with Light Touch following a mechanical perturbation: Adaption of sway and disruption of right posterior parietal cortex by cTBS. PLoS ONE, 2020, 15, e0233988.	2.5	7
65	Associating and reshaping of whole body motions for object manipulation. , 2009, , .		6
66	Prediction-Based Synchronized Human Motion Imitation by a Humanoid Robot. Automatisierungstechnik, 2012, 60, 705-714.	0.8	6
67	Encoding human actions with a frequency domain approach. , 2016, , .		6
68	Intuitive Programming of Conditional Tasks by Demonstration of Multiple Solutions. IEEE Robotics and Automation Letters, 2019, 4, 4483-4490.	5.1	6
69	Parameterizing actions to have the appropriate effects. , 2011, , .		6
70	Learning force control policies for compliant manipulation. , 2011, , .		6
71	Mimetic communication with impedance control for physical human-robot interaction. , 2009, , .		5
72	GMM-based 3D object representation and robust tracking in unconstructed dynamic environments. , 2013, , .		5

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73	Prioritized inverse kinematics using QR and cholesky decompositions. , 2014, , .		5
74	Incremental robot skill learning by human motion retargetting and physical human guidance. , 2015, , .		5
75	Identification of Common Force-based Robot Skills from the Human and Robot Perspective. , 2021, , .		5
76	Passivity-based variable impedance control for redundant manipulators. IFAC-PapersOnLine, 2020, 53, 9865-9872.	0.9	5
77	Deep Active Cross-Modal Visuo-Tactile Transfer Learning for Robotic Object Recognition. IEEE Robotics and Automation Letters, 2022, 7, 9557-9564.	5.1	5
78	Incremental motion primitive learning by physical coaching using impedance control. , 2010, , .		4
79	Inverse reinforcement learning for dexterous hand manipulation. , 2021, , .		4
80	Detection of Collaboration and Collision Events during Contact Task Execution. , 2021, , .		4
81	Collaborative Programming of Conditional Robot Tasks. , 2020, , .		4
82	Sex differences in the association of postural control with indirect measures of body representations. Scientific Reports, 2022, 12, 4556.	3.3	4
83	Novel Approach Using Risk Analysis Component to Continuously Update Collaborative Robotics Applications in the Smart, Connected Factory Model. Applied Sciences (Switzerland), 2022, 12, 5639.	2.5	4
84	Multiple object tracking using an RGB-D camera by hierarchical spatiotemporal data association. , 2013, , .		3
85	A Componentwise Simulated Annealing EM Algorithm for Mixtures. Lecture Notes in Computer Science, 2015, , 287-294.	1.3	3
86	Gesture, Posture, Facial Interfaces. , 2020, , 1-10.		3
87	Image-based magnetic control of paramagnetic microparticles in water. , 2011, , .		3
88	Design of a Collaborative Modular End Effector Considering Human Values and Safety Requirements for Industrial Use Cases. Springer Proceedings in Advanced Robotics, 2022, , 45-60.	1.3	3
89	Particle filter based monocular human tracking with a 3d cardbox model and a novel deterministic resampling strategy. , 2011, , .		2
90	An adaptive dynamic inversion-extremum seeking control approach for constrained robotic motion tasks. , 2015, , .		2

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91	Real-time and model-free object tracking using particle filter with Joint Color-Spatial Descriptor. , 2015, , .		2
92	Representing human motion with FADE and U-FADE: an efficient frequency-domain approach. Autonomous Robots, 2019, 43, 179-196.	4.8	2
93	Hand Pose-based Task Learning from Visual Observations with Semantic Skill Extraction. , 2020, , .		2
94	Closed-Loop Variable Stiffness Control of Dynamical Systems. , 2021, , .		2
95	Bipedal Locomotion Primitive Learning, Control and Prediction from Human Data. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 536-542.	0.4	1
96	Online iterative learning control of zero-moment point for biped walking stabilization. , 2015, , .		1
97	Symbolic Task Compression in Structured Task Learning. , 2019, , .		1
98	Human-Agent Shared Teleoperation: A Case Study Utilizing Haptic Feedback. Lecture Notes in Electrical Engineering, 2019, , 247-251.	0.4	1
99	An experience-driven robotic assistant acquiring human knowledge to improve haptic cooperation. , 2011, , .		1
100	Combining Task and Motion Planning using Policy Improvement with Path Integrals. , 2021, , .		1
101	Enabling the sense of touch in EMG-controlled hand prostheses using vibro-tactile stimulation. , 2019, , .		0
102	A center of pressure progression model for walking with non heeled and heeled footwear. Gait and Posture, 2021, 84, 300-307.	1.4	0
103	Incremental Motion Reshaping of Autonomous Dynamical Systems. Springer Proceedings in Advanced Robotics, 2020, , 43-57.	1.3	0
104	Special Issue on the 2021 Ubiquitous Robots Conference. Intelligent Service Robotics, 0, , 1.	2.6	0
105	Title is missing!. , 2020, 15, e0233988.		0
106	Title is missing!. , 2020, 15, e0233988.		0
107	Title is missing!. , 2020, 15, e0233988.		0
108	Title is missing!. , 2020, 15, e0233988.		0

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109	Title is missing!. , 2020, 15, e0233988.		0
110	Title is missing!. , 2020, 15, e0233988.		0
111	Visually Grounding Language Instruction for History-Dependent Manipulation. , 2022, , .		0