Jee-Hwan Ryu

List of Publications by Year
in descending order

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161 papers	3,708 citations	361413 20 h-index	189892 50 g-index
164 all docs	164 docs citations	164 times ranked	1849 citing authors

#	Article	IF	Citations
1	Virtual Inertia as an Energy Dissipation Element for Haptic Interfaces. IEEE Robotics and Automation Letters, 2022, 7, 2708-2715.	5.1	1
2	Active-Type Continuously Variable Transmission System Based on a Twisted String Actuator. IEEE Robotics and Automation Letters, 2022, 7, 2605-2612.	5.1	4
3	OpenStreetMap-Based LiDAR Global Localization in Urban Environment Without a Prior LiDAR Map. IEEE Robotics and Automation Letters, 2022, 7, 4999-5006.	5.1	10
4	Chattering-Free Time Domain Passivity Approach. IEEE Transactions on Haptics, 2022, 15, 572-581.	2.7	2
5	Method for generating real-time interactive virtual fixture for shared teleoperation in unknown environments. International Journal of Robotics Research, 2022, 41, 925-951.	8.5	7
6	Learning Robotic Rotational Manipulation Skill from Bilateral Teleoperation. , 2022, , .		0
7	Passivity Controller Based on Load-Side Damping Assignment for High Stiffness Controlled Series Elastic Actuators. IEEE Transactions on Industrial Electronics, 2021, 68, 871-881.	7.9	16
8	Ensuring Stable and Transparent High Stiffness Haptic Interaction Using Successive Force Augmention with Time Domain Passivity Approach. Springer Proceedings in Advanced Robotics, 2021, , 263-273.	1.3	1
9	Origami-inspired New Material Feeding Mechanism for Soft Growing Robots to Keep the Camera Stay at the Tip by Securing its Path. IEEE Robotics and Automation Letters, 2021, 6, 4592-4599.	5.1	10
10	Design of Manipulator End Effectors for Pier Column Construction. The Journal of Korea Robotics Society, 2021, 16, 207-215.	0.4	2
11	On Energy-Preserving Motion in Twisted String Actuators. IEEE Robotics and Automation Letters, 2021, 6, 7406-7412.	5.1	0
12	On Smooth Time-Optimal Trajectory Planning in Twisted String Actuators. , 2021, , .		0
13	Enhancing the Rate-Hardness of Haptic Interaction: Successive Force Augmentation Approach. IEEE Transactions on Industrial Electronics, 2020, 67, 809-819.	7.9	11
14	Co-Actuation: A Method for Achieving High Stiffness and Low Inertia for Haptic Devices. IEEE Transactions on Haptics, 2020, 13, 312-324.	2.7	8
15	Vine Robots. IEEE Robotics and Automation Magazine, 2020, 27, 120-132.	2.0	97
16	A Framework for Interactive Virtual Fixture Generation for Shared Teleoperation in Unstructured Environments. , 2020, , .		6
17	Development of a Twisted String Actuator-based Exoskeleton for Hip Joint Assistance in Lifting Tasks. , 2020, , .		12
18	Nonlinear Model Predictive Growth Control of a Class of Plant-Inspired Soft Growing Robots. IEEE Access, 2020, 8, 214495-214503.	4.2	8

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19	Multilateral Teleoperation Over Communication Time Delay Using the Time-Domain Passivity Approach. IEEE Transactions on Control Systems Technology, 2020, 28, 2705-2712.	5.2	13
20	Accurate Dynamic Modeling of Twisted String Actuators Accounting for String Compliance and Friction. IEEE Robotics and Automation Letters, 2020, 5, 3438-3443.	5.1	15
21	A Tip Mount for Transporting Sensors and Tools using Soft Growing Robots. , 2020, , .		21
22	High-Bandwidth Control of Twisted String Actuators. , 2019, , .		4
23	Single-Motor-Based Bidirectional Twisted String Actuation With Variable Radius Pulleys. IEEE Robotics and Automation Letters, 2019, 4, 3735-3741.	5.1	8
24	Enhancing the Force Transparency of Time Domain Passivity Approach: Observer-Based Gradient Controller. , 2019, , .		14
25	Interactive Virtual Fixture Generation for Shared Teleoperation in Unstructured Environments. Lecture Notes in Electrical Engineering, 2019, , 88-91.	0.4	0
26	Robotic Artificial Muscles: Current Progress and Future Perspectives. IEEE Transactions on Robotics, 2019, 35, 761-781.	10.3	225
27	Human-Agent Shared Teleoperation: A Case Study Utilizing Haptic Feedback. Lecture Notes in Electrical Engineering, 2019, , 247-251.	0.4	1
28	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
29	Reducing the conservatism of the time domain passivity approach through consideration of energy reflection in delayed coupled network systems. Mechatronics, 2019, 58, 58-69.	3.3	31
30	Relaxing the Conservatism of Passivity Condition for Impedance Controlled Series Elastic Actuators. , 2019, , .		10
31	Effect of Vibration on Twisted String Actuation Through Conduit at High Bending Angles. , 2019, , .		6
32	Preserving the Physical Coupling in Teleoperation despite Time Delay through Observer-Based Gradient Control. IFAC-PapersOnLine, 2019, 52, 25-30.	0.9	7
33	Inverse discounted-based LQR algorithm for learning human movement behaviors. Applied Intelligence, 2019, 49, 1489-1501.	5.3	12
34	Configuration of Haptic Feedback Based Relief Robot System. Lecture Notes in Electrical Engineering, 2019, , 294-299.	0.4	0
35	A Novel Fingertip Tactile Display for Concurrently Displaying Texture and Orientation. Lecture Notes in Electrical Engineering, 2019, , 216-218.	0.4	0
36	Effect of Vibration on Twisted String Actuation Inside Conduit at High Curvature Angles. The Journal of Korea Robotics Society, 2019, 14, 221-227.	0.4	0

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37	Development and Evaluation of an Intuitive Flexible Interface for Teleoperating Soft Growing Robots. , 2018, , .		29
38	Design of Robotic Gripper with Constant Transmission Ratio Based on Twisted String Actuator: Concept and Evaluation. , 2018, , .		4
39	Enhancing the Command-Following Bandwidth for Transparent Bilateral Teleoperation. , 2018, , .		3
40	Lyapunov Observer/Controller for Stable Haptic Interaction. , 2018, , .		3
41	Preliminary Study of Twisted String Actuation Through a Conduit Toward Soft and Wearable Actuation. , 2018, , .		12
42	Ferro-fluid based portable fingertip haptic display and its preliminary experimental evaluation. , 2018, , .		6
43	SoTCM: a scene-oriented task complexity metric for gaze-supported teleoperation tasks. Intelligent Service Robotics, 2018, 11, 279-288.	2.6	0
44	Shared Teleoperation for Nuclear Plant Robotics Using Interactive Virtual Guidance Generation and Shared Autonomy Approaches. , 2018, , .		6
45	Preliminary Study on Real-Time Interactive Virtual Fixture Generation Method for Shared Teleoperation in Unstructured Environments. Lecture Notes in Computer Science, 2018, , 648-659.	1.3	5
46	Ferro-Fluid Based Lightweight and Portable Tactile Display for Persuasive Tactile Cues Including Orientation and Texture. Lecture Notes in Electrical Engineering, 2018, , 87-93.	0.4	0
47	Multi Degree-of-Freedom Successive Stiffness Increment Approach for High Stiffness Haptic Interaction. Lecture Notes in Electrical Engineering, 2018, , 287-293.	0.4	0
48	Auxilio: A portable cable-driven exosuit for upper extremity assistance. International Journal of Control, Automation and Systems, 2017, 15, 73-84.	2.7	67
49	The Input-to-State Stable (ISS) Approach for Stabilizing Haptic Interaction With Virtual Environments. IEEE Transactions on Robotics, 2017, 33, 948-963.	10.3	18
50	Portable Exoskeleton Glove With Soft Structure for Hand Assistance in Activities of Daily Living. IEEE/ASME Transactions on Mechatronics, 2017, 22, 865-875.	5.8	120
51	Passive returning mechanism for twisted string actuators. , 2017, , .		5
52	Passivity-based stability in explicit force control of robots. , 2017, , .		25
53	Novel learning from demonstration approach for repetitive teleoperation tasks. , 2017, , .		31
54	Realizing low-impedance rendering in admittance-type haptic interfaces using the input-to-state stable approach. , 2017, , .		3

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55	New passivity observers for improved robot force control. , 2017, , .		6
56	Increasing the rate-hardness of haptic interaction: Successive force augmentation approach. , 2017, , .		6
57	A study on life cycle of twisted string actuators: Preliminary results. , 2017, , .		14
58	Development of shared autonomy and virtual guidance generation system for human interactive teleoperation. , 2017, , .		3
59	Circumventing the fundamental tradeoff between stability and performance in haptic rendering â€" successive force augment approach. , 2016, , .		4
60	Performance comparison of Wave Variable Transformation and Time Domain Passivity Approaches for time-delayed teleoperation: Preliminary results. , 2016, , .		21
61	Development of the human interactive autonomy for the shared teleoperation of mobile robots. , 2016, , .		11
62	Stable and transparent teleoperation over communication time-delay: Observer-based input-to-state stable approach. , 2016, , .		8
63	KONTUR-2: Force-feedback teleoperation from the international space station. , 2016, , .		72
64	Twisted string-based passively variable transmission: Concept, model, and evaluation. Mechanism and Machine Theory, 2016, 100, 205-221.	4.5	20
65	Independent force and position control for cooperating manipulators handling an unknown object and interacting with an unknown environment. Journal of the Franklin Institute, 2016, 353, 857-875.	3.4	22
66	Stable bilateral teleoperation with input-to-state stable approach. , 2015, , .		4
67	Estimation of human arm impedance in accordance with the master device types and gripping posture. , 2015, , .		2
68	Dynamic authority distribution for cooperative teleoperation. , 2015, , .		6
69	Network formulation and stability improvement of a bilateral teleoperation system with admittance-type master interfaces. , 2015, , .		2
70	Increasing the impedance range of admittance-type haptic interfaces by using Time Domain Passivity Approach. , 2015, , .		2
71	A preliminary study on development of haptic interface for underwater vehicles. , 2015, , .		2
72	Effect of kinesthetic coupling in cooperative teleoperation. , 2015, , .		0

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73	Multi Degree-of-Freedom Input-to-State Stable approach for stable haptic interaction. , 2015, , .		3
74	6-DOF extension of memory-based passivation approach for stable haptic interaction. Intelligent Service Robotics, 2015, 8, 23-34.	2.6	3
75	Palpation simulator with stable haptic feedback. Minimally Invasive Therapy and Allied Technologies, 2015, 24, 211-217.	1.2	6
76	Input-to-state stable approach to release the conservatism of passivity-based stable haptic interaction. , 2015, , .		15
77	Passively adjustable gear based on twisted string actuator: Concept, model and evaluation. , 2015, , .		6
78	Rotational twisted string actuator with linearized output: Mathematical model and experimental evaluation. , 2015, , .		8
79	Hybrid force-motion control of coordinated robots interacting with unknown environments. , 2014, , .		7
80	Memory-based passivation approach for 6-DOF haptic rendering of high stiffness virtual environment. , 2014, , .		0
81	Transmission of operator intention impedance using phantom haptic device. , 2014, , .		1
82	Towards variable stiffness control of antagonistic twisted string actuators. , 2014, , .		30
83	Memory-Based Passivation Approach for Stable Haptic Interaction. IEEE/ASME Transactions on Mechatronics, 2014, 19, 1424-1435.	5.8	28
84	Twisted String Actuation Systems: A Study of the Mathematical Model and a Comparison of Twisted Strings. IEEE/ASME Transactions on Mechatronics, 2014, 19, 1331-1342.	5.8	107
85	Compensating position drift in Time Domain Passivity Approach based teleoperation. , 2014, , .		17
86	Sliding mode hybrid impedance control of robot manipulators interacting with unknown environments using VSMRC method. , 2013, , .		3
87	Implementation of semi-virtual Multiple-Master/Multiple-Slave system. , 2013, , .		0
88	Independent force and position control for cooperating manipulators handling an unknown object interacting with an unknown environment. , 2013, , .		0
89	Connected Components for a Fast and Robust 2D Lidar Data Segmentation. , 2013, , .		5
90	Multilateral control for delayed teleoperation. , 2013, , .		16

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91	A Multiresolution Approach for Real-Time Motion Planning under Differential Constraints. Advances in Intelligent Systems and Computing, 2013, , 745-754.	0.6	0
92	Shared teleoperation of a vehicle with a virtual driving interface. , 2013, , .		8
93	Bidirectional elbow exoskeleton based on twisted-string actuators. , 2013, , .		27
94	Measurement of human arm impedance using the human arm posture. , 2013, , .		0
95	A preliminary study on a twisted strings-based elbow exoskeleton. , 2013, , .		19
96	Stable multilateral teleoperation with Time Domain Passivity Approach. , 2013, , .		16
97	Polar Histogram Based Sampling Method for Autonomous Vehicle Motion Planning. Advances in Intelligent Systems and Computing, 2013, , 737-744.	0.6	0
98	Passivity of delayed bilateral teleoperation of mobile robots with ambiguous causalities: Time Domain Passivity Approach. , 2012, , .		17
99	A study on twisted string actuation systems: Mathematical model and its experimental evaluation. , 2012, , .		14
100	Stable haptic interaction with admittance type virtual environments based on time-domain passivity approach. , 2012, , .		1
101	A study on unconstrained tactile-kinesthetic feedback. , 2012, , .		0
102	Implementation of Time Domain Passivity Approach on Rate-Mode bilateral teleoperation. , 2012, , .		3
103	Supervisory model-mediated teleoperation for multiple-master/multiple-slave system. , 2012, , .		2
104	The Effect of Asynchronous Haptic and Video Feedback on Teleoperation and a Comment for Improving the Performance. Journal of Institute of Control, Robotics and Systems, 2012, 18, 156-160.	0.2	4
105	Development of an Exoskeleton System for Elderly and Disabled People. , 2011, , .		9
106	Memory based passivation method for stable haptic interaction. , 2011, , .		3
107	Haptic interface for intuitive teleoperation of wheeled and tracked vehicles. , 2011, , .		2
108	Network representation and passivity of delayed teleoperation systems. , 2011, , .		30

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109	Design of a master device for the teleoperation of wheeled and tracked vehicles. , 2010, , .		7
110	A passive bilateral control scheme for a teleoperator with time-varying communication delay. Mechatronics, 2010, 20, 812-823.	3.3	182
111	Time Domain Passivity Control for Position-Position Teleoperation Architectures. Presence: Teleoperators and Virtual Environments, 2010, 19, 482-497.	0.6	48
112	Position drift compensation in time domain passivity based teleoperation. , 2010, , .		27
113	Plugfest 2009: Global interoperability in Telerobotics and telemedicine. , 2010, 2010, 1733-1738.		26
114	Improving mobile robot bilateral teleoperation by introducing variable force feedback gain. , 2010, , .		20
115	A preliminary experimental study on haptic teleoperation of mobile robot with variable force feedback gain. , 2010, , .		43
116	A Study on Teleoperation Systems with Different Haptic and Video time-delay. The Abstracts of the International Conference on Advanced Mechatronics Toward Evolutionary Fusion of IT and Mechatronics ICAM, 2010, 2010.5, 621-625.	0.0	0
117	Stability Analysis of Mobile Robot Teleoperation with Variable Force Feedback Gain. Lecture Notes in Computer Science, 2010, , 177-182.	1.3	0
118	Performance Analysis of Telerobotic Systems with Different Haptic and Video Time-delay. Journal of Institute of Control, Robotics and Systems, 2010, 16, 286-292.	0.2	1
119	A user study of command strategies for mobile robot teleoperation. Intelligent Service Robotics, 2009, 2, 95-104.	2.6	40
120	Direct current measurement based steer-by-wire systems for realistic driving feeling. , 2009, , .		17
121	Rendering of environmental force feedback in mobile robot teleoperation based on fuzzy logic. , 2009, , .		4
122	FPGA based time domain Passivity Observer and Passivity Controller. , 2009, , .		7
123	Telerobotic System for Cell Manipulation. , 2008, , .		8
124	An injecting method of physical damping to haptic interfaces based on FPGA. , 2008, , .		5
125	Switching of control signals in teleoperation systems: Formalization and application. , 2008, , .		16
126	Teleoperation of multi-robot and multi-property systems. , 2008, , .		15

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127	A feasibility study of time-domain passivity approach for bilateral teleoperation of mobile manipulator. , 2008, , .		12
128	Development of a Observe-By-Wire System for Forklifts Using Haptic Interfaces. , 2008, , .		0
129	Stable Teleoperation with Time Domain Passivity Approach. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2008, 41, 15654-15659.	0.4	1
130	A Study on the Role of Force Feedback for Teleoperation of Industrial Overhead Crane. Lecture Notes in Computer Science, 2008, , 796-805.	1.3	6
131	Stable Bilateral Control of Teleoperators Under Time-varying Communication Delay: Time Domain Passivity Approach. Proceedings - IEEE International Conference on Robotics and Automation, 2007, , .	0.0	44
132	Landing Force Control for Humanoid Robot by Time-Domain Passivity Approach. IEEE Transactions on Robotics, 2007, 23, 1294-1301.	10.3	42
133	Bilateral Control with Time Domain Passivity Approach Under Time-varying Communication Delay. , 2007, , .		7
134	Hybrid position-position and position-speed command strategy for the bilateral teleoperation of a mobile robot. , 2007, , .		26
135	Intelligent Filtering in Telerobotic System. , 2007, , 313-321.		0
136	Landing Force Controller for a Humanoid Robot: Time-Domain Passivity Approach. , 2006, , .		6
137	A simulation/experimental study of the noisy behavior of the time-domain passivity controller. , 2005, 21, 733-741.		19
138	Time domain passivity control with reference energy following. IEEE Transactions on Control Systems Technology, 2005, 13, 737-742.	5.2	132
139	Stability Guaranteed Control: Time Domain Passivity Approach. IEEE Transactions on Control Systems Technology, 2004, 12, 860-868.	5.2	86
140	Sampled- and Continuous-Time Passivity and Stability of Virtual Environments. Journal of the American College of Radiology, 2004, 20, 772-776.	1.8	76
141	Control of a Flexible Manipulator With Noncollocated Feedback: Time-Domain Passivity Approach. Journal of the American College of Radiology, 2004, 20, 776-780.	1.8	55
142	Stable Teleoperation With Time-Domain Passivity Control. IEEE Transactions on Automation Science and Engineering, 2004, 20, 365-373.	2.3	310
143	Control of a Flexible Manipulator with Noncollocated Feedback: Time Domain Passivity Approach. , 2003, , 121-134.		8
144	Time-domain passivity control of haptic interfaces. IEEE Transactions on Automation Science and Engineering, 2002, 18, 1-10.	2.3	610

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145	A novel adaptive bilateral control scheme using similar closed-loop dynamic characteristics of master/slave manipulators. Journal of Field Robotics, 2001, 18, 533-543.	0.7	47
146	Title is missing!. Journal of Intelligent and Robotic Systems: Theory and Applications, 2000, 27, 345-361.	3.4	10
147	Stable teleoperation with time domain passivity control. , 0, , .		3
148	A robust controller design method for a flexible manipulator with a time varying payload and parameter uncertainties. , 0, , .		7
149	Design of a teleoperation controller for an underwater manipulator. , 0, , .		12
150	Control of underwater manipulators mounted on an ROV using base force information. , 0, , .		20
151	Time domain passivity control of haptic interfaces. , 0, , .		45
152	Stability guaranteed control: Time domain passivity approach. , 0, , .		2
153	Time domain passivity control with reference energy behavior. , 0, , .		18
154	Time domain passivity control for 6 degrees of freedom haptic displays. , 0, , .		24
155	Sampled and continuous time passivity and stability of virtual environments. , 0, , .		66
156	A Simulation/Experimental Study of the Noisy Behavior of the Time Domain Passivity Controller for Haptic Interfaces. , 0, , .		2
157	Stable and high performance teleoperation with time domain passivity control: reference energy following scheme. , 0, , .		1
158	Compensation for the landing impact force of a humanoid robot by time domain passivity approach. , 0, , .		12
159	Control of a Flexible Manipulator with Noncollocated Feedback: Time Domain Passivity Approach. , 0, , .		0
160	Testing Time Domain Passivity Control of Haptic Enabled Systems. , 0, , 550-559.		1
161	Stable and high performance teleoperation with time domain passivity control: reference energy following scheme. , 0, , .		0