Dong-Soo Kwon

List of Publications by Citations

136 papers	**1,159** citations	**17** h-index	**28** g-index
170 ext. papers	**1,528** ext. citations	**3.1** avg, IF	**4.83** L-index

#	Paper	IF	Citations
136	Stable teleoperation with time-domain passivity control. *IEEE Transactions on Automation Science and Engineering*, **2004**, 20, 365-373		220
135	Stability guaranteed control: time domain passivity approach. *IEEE Transactions on Control Systems Technology*, **2004**, 12, 860-868	4.8	60
134	Surgical robot system for single-port surgery with novel joint mechanism. *IEEE Transactions on Biomedical Engineering*, **2013**, 60, 937-44	5	50
133	Real-time area-based haptic rendering and the augmented tactile display device for a palpation simulator. *Advanced Robotics*, **2007**, 21, 961-981	1.7	41
132	A novel adaptive bilateral control scheme using similar closed-loop dynamic characteristics of master/slave manipulators. *Journal of Field Robotics*, **2001**, 18, 533-543		38
131	Robot-assisted femoral stem implantation using an intramedulla gauge. *IEEE Transactions on Automation Science and Engineering*, **2003**, 19, 885-892		29
130	K-FLEX: A flexible robotic platform for scar-free endoscopic surgery. *International Journal of Medical Robotics and Computer Assisted Surgery*, **2020**, 16, e2078	2.9	28
129	Application of magnetorheological fluids for a miniature haptic button: Experimental evaluation. *Journal of Intelligent Material Systems and Structures*, **2012**, 23, 1025-1031	2.3	28
128	Baseline CNN structure analysis for facial expression recognition **2016**,		27
127	Telepresence robot system for English tutoring **2010**,		26
126	Strong Continuum Manipulator for Flexible Endoscopic Surgery. *IEEE/ASME Transactions on Mechatronics*, **2019**, 24, 2193-2203	5.5	25
125	Computational Model of Emotion Generation for Human-Robot Interaction Based on the Cognitive Appraisal Theory. *Journal of Intelligent and Robotic Systems: Theory and Applications*, **2010**, 60, 263-283	2.9	23
124	Use of Simulated Thermal Cues for Material Discrimination and Identification with a Multi-Fingered Display. *Presence: Teleoperators and Virtual Environments*, **2008**, 17, 29-42	2.9	22
123	Design of emergency braking algorithm for pedestrian protection based on multi-sensor fusion. *International Journal of Automotive Technology*, **2017**, 18, 1067-1076	1.6	20
122	A single port surgical robot system with novel elbow joint mechanism for high force transmission. *International Journal of Medical Robotics and Computer Assisted Surgery*, **2017**, 13, e1808	2.9	19
121	Haptic control of the master hand controller for a microsurgical telerobot system		18
120	Compact laparoscopic assistant robot using a bending mechanism. *Advanced Robotics*, **2007**, 21, 689-709	1.7	17

119	Cluster-Analysis-Based User-Adaptive Fall Detection Using Fusion of Heart Rate Sensor and Accelerometer in a Wearable Device. *IEEE Access*, **2020**, 8, 40389-40401	3.5	15
118	Braille Display for Portable Device Using Flip-Latch Structured Electromagnetic Actuator. *IEEE Transactions on Haptics*, **2020**, 13, 59-65	2.7	14
117	Mechanical Vibration Influences the Perception of Electrovibration. *Scientific Reports*, **2018**, 8, 4555	4.9	14
116	Human-friendly interfaces of wheelchair robotic system for handicapped persons		14
115	Underactuated miniature bending joint composed of serial pulleyless rolling joints. *Advanced Robotics*, **2014**, 28, 1-14	1.7	13
114	A tetrahedron approach for a unique closed-form solution of the forward kinematics of six-dof parallel mechanisms with multiconnected joints. *Journal of Field Robotics*, **2002**, 19, 269-281		12
113	Wearable master device for spinal injured persons as a control device for motorized wheelchairs. *Artificial Life and Robotics*, **2000**, 4, 182-187	0.6	12
112	Three-Degrees-of-Freedom Passive Gravity Compensation Mechanism Applicable to Robotic Arm With Remote Center of Motion for Minimally Invasive Surgery. *IEEE Robotics and Automation Letters*, **2019**, 4, 3473-3480	4.2	10
111	Intelligent interaction based on a surgery task model for a surgical assistant robot: Awareness of current surgical stages based on a surgical procedure model. *International Journal of Control, Automation and Systems*, **2010**, 8, 782-792	2.9	10
110	Mechatronics Technology in Mobile Devices. *IEEE Industrial Electronics Magazine*, **2010**, 4, 36-41	6.2	10
109	Compact camera assistant robot for minimally invasive surgery: KaLAR		10
108	User-adaptive fall detection for patients using wristband **2016**,		10
107	A Weighted QFD-Based Usability Evaluation Method for Elderly in Smart Cars. *International Journal of Human-Computer Interaction*, **2015**, 31, 703-716	3.6	9
106	Mobile robots at your fingertip: Bezier curve on-line trajectory generation for supervisory control		9
105	Hysteresis Compensator With Learning-Based Hybrid Joint Angle Estimation for Flexible Surgery Robots. *IEEE Robotics and Automation Letters*, **2020**, 5, 6837-6844	4.2	8
104	A master manipulator with a remote-center-of-motion kinematic structure for a minimally invasive robotic surgical system. *International Journal of Medical Robotics and Computer Assisted Surgery*, **2018**, 14, e1865	2.9	8
103	Mechanical and psychophysical performance evaluation of a haptic actuator based on magnetorheological fluids. *Journal of Intelligent Material Systems and Structures*, **2016**, 27, 1967-1975	2.3	8
102	Pedestrian detection and tracking in thermal images using shape features **2015**,		8

101	Realistic force reflection in a spine biopsy simulator		8
100	A miniature magneto-rheological actuator with an impedance sensing mechanism for haptic applications. *Journal of Intelligent Material Systems and Structures*, **2014**, 25, 1054-1061	2.3	7
99	Design of an integrated tactile display system **2004**,		7
98	Haptic experimentation on a hybrid active/passive force feedback device		7
97	A Robust Controller Design Method for a Flexible Manipulator with a Large Time Varying Payload and Parameter Uncertainties. *Journal of Intelligent and Robotic Systems: Theory and Applications*, **2000**, 27, 345-361	2.9	7
96	Effect of backlash hysteresis of surgical tool bending joints on task performance in teleoperated flexible endoscopic robot. *International Journal of Medical Robotics and Computer Assisted Surgery*, **2020**, 16, e2047	2.9	7
95	UI-GAN: Generative Adversarial Network-Based Anomaly Detection Using User Initial Information for Wearable Devices. *IEEE Sensors Journal*, **2021**, 21, 9949-9958	4	7
94	Path Planning for Automation of Surgery Robot based on Probabilistic Roadmap and Reinforcement Learning **2018**,		7
93	Design, simulation, and testing of a magnetorheological fluid based haptic actuator for mobile applications. *Journal of Intelligent Material Systems and Structures*, **2015**, 26, 1670-1678	2.3	6
92	Affective interaction with a companion robot in an interactive driving assistant system **2013**,		6
91	ARTHROBOT : a new surgical robot system for total hip arthroplasty		6
90	KAIST interactive bicycle simulator		6
89	Gravity compensation mechanism for roll-pitch rotation of a robotic arm **2016**,		6
88	Decision-Level Fusion Method for Emotion Recognition using Multimodal Emotion Recognition Information **2018**,		6
87	A convex programming approach to the base placement of a 6-DOF articulated robot with a spherical wrist. *International Journal of Advanced Manufacturing Technology*, **2019**, 102, 3135-3150	3.2	5
86	Haptic interaction with objects in a picture based on pose estimation. *Multimedia Tools and Applications*, **2014**, 72, 2041-2062	2.5	5
85	Zero-moment point based balance control of leg-wheel hybrid structures with inequality constraints of kinodynamic behavior **2012**,		5
84	Virtual Friction Display of Hybrid Force Feedback Interface with Actuators Comprising DC Motor and Magnetorheological Brake. *Industrial Electronics Society (IECON), Annual Conference of IEEE*, **2006**,		5

#	Title		
83	Control of underwater manipulators mounted on an ROV using base force information		5
82	easyEndo robotic endoscopy system: Development and usability test in a randomized controlled trial with novices and physicians. *International Journal of Medical Robotics and Computer Assisted Surgery*, **2021**, 17, 1-14	2.9	5
81	Image-based hysteresis compensator for a flexible endoscopic surgery robot **2019**,		4
80	Histogram based fall prediction of patients using a thermal imagery camera **2017**,		4
79	Face image-based age and gender estimation with consideration of ethnic difference **2017**,		4
78	Emotional interaction with a mobile robot using hand gestures **2014**,		4
77	Zero-moment point feedback balance control of leg-wheel hybrid structures by using dynamic decoupling and control allocation **2011**,		4
76	Effect of temperature in perceiving tactile stimulus using a thermo-tactile display **2008**,		4
75	Development of a wheelchair-based rehabilitation robotic system (KARES II) with various human-robot interaction interfaces for the disabled		4
74	The mechanism and registration method of a surgical robot for hip arthroplasty		4
73	Evaluation of a robotic arm-assisted endoscope to facilitate endoscopic submucosal dissection (with video). *Gastrointestinal Endoscopy*, **2020**, 91, 699-706	5.2	4
72	Learning 3D local surface descriptor for point cloud images of objects in the real-world. *Robotics and Autonomous Systems*, **2019**, 116, 64-79	3.5	3
71	Learning similarity metric for comparing RGB-D image patches by CNN **2017**,		3
70	Laser scanner based foot motion detection for intuitive robot user interface system **2012**,		3
69	Design of a new miniature haptic button based on magneto-rheological fluids **2012**,		3
68	Tiny Feel: A New Miniature Tactile Module Using Elastic and Electromagnetic Force for Mobile Devices. *IEICE Transactions on Information and Systems*, **2010**, E93-D, 2233-2242	0.6	3
67	A dual-layer user model based cognitive system for user-adaptive service robots **2011**,		3
66	A mobile robot platform based on spring loaded casters for physical interaction **2011**,		3

65	Design of idle motions for service robot via video ethnography **2009**,	3
64	Zero-moment point feedforward balance control of leg-wheel hybrid structures by using Input/Output Linearization **2011**,	3
63	Control of the haptic interface with friction compensation and its performance evaluation	3
62	Design of a teleoperation controller for an underwater manipulator	3
61	A 6-DOF force-reflecting hand controller using the fivebar parallel mechanism	3
60	A robust controller design method for a flexible manipulator with a time varying payload and parameter uncertainties	3
59	Geometric formulation approach for determining the actual solution of the forward kinematics of 6-DOF parallel manipulators	3
58	Indirect measure of joint torques of surgical instrument in robot-assisted laparoscopic surgery **2016**,	2
57	GMM-based 3D object representation and robust tracking in unconstructed dynamic environments **2013**,	2
56	Driving situation-based real-time interaction with intelligent driving assistance agent **2015**,	2
55	Experience based domestic environment and user adaptive cleaning algorithm of a robot cleaner **2014**,	2
54	The effect of multiple robot interaction on human-robot interaction **2012**,	2
53	A New Miniature Smart Actuator based on Piezoelectric material and Solenoid for Mobile Devices. *The Abstracts of the International Conference on Advanced Mechatronics Toward Evolutionary Fusion of IT and Mechatronics ICAM*, **2010**, 2010.5, 615-620	2
52	SaLT: Small and lightweight tactile display using ultrasonic actuators **2008**,	2
51	Design of a robot head for emotional expression: EEEX **2008**,	2
50	Electric inductance sensor-based path recognition for the highly configurable path tracking of service robot **2008**,	2
49	Applications of a miniature pin-array tactile module for a mobile device **2008**,	2
48	Design of a Dexterous and Compact Laparoscopic Assistant Robot **2006**,	2

47	Behavior Coordination of Socially Interactive Robot using Sentiment Relation Model **2007**,		2
46	A Design of the Mental Model of a Cognitive Robot **2007**,		2
45	New methodology for the forward kinematics of 6-DOF parallel manipulators using tetrahedron configurations		2
44	In haptics, the influence of the controllable physical damping on stability and performance		2
43	A Stiffness Adjustable 6-DOF Robotic System for Pituitary Tumor Resection Under MRI. *IEEE Access*, **2020**, 8, 192557-192568	3.5	2
42	Non-Linear Hysteresis Compensation of a Tendon-Sheath-Driven Robotic Manipulator Using Motor Current. *IEEE Robotics and Automation Letters*, **2021**, 6, 1224-1231	4.2	2
41	Hysteresis Compensator with Learning-based Pose Estimation for a Flexible Endoscopic Surgery Robot **2019**,		2
40	**2019**,		2
39	Novel Multi-Degrees-of-Freedom Friction-Based Locking Mechanism Applicable to Positioning Arm for Minimally Invasive Surgery. *International Journal of Precision Engineering and Manufacturing*, **2021**, 22, 83-93	1.7	2
38	. *IEEE Robotics and Automation Letters*, **2019**, 4, 2661-2668	4.2	1
37	Towards Shape-Changing Devices: Physical Interface Control with an Active Contour Model. *Symmetry*, **2018**, 10, 57	2.7	1
36	Robotic endoscopy system (easyEndo) with a robotic arm mountable on a conventional endoscope **2019**,		1
35	7-DOF horseback riding simulator based on a crank mechanism with variable radius and its inverse kinematics solution **2014**,		1
34	Episodic memory system of affective agent with emotion for long-term human-robot interaction **2013**,		1
33	Automated robot speech gesture generation system based on dialog sentence punctuation mark extraction **2012**,		1
32	Behavioral analysis of touch-based interaction of humans with an egg-shaped robot **2013**,		1
31	Designing reactive emotion generation model for interactive robots **2010**,		1
30	Pattern recognition-based real-time end point detection specialized for accelerometer signal **2009**,		1

29	Midas touch - chunking information on a robotic user interface using spatial and functional metaphor **2009**,		1
28	Design of a compact 5-DOF surgical robot of a spherical mechanism: CURES **2008**,		1
27	Realization of expressive body motion using leg-wheel hybrid mobile robot: KaMERo1 **2008**,		1
26	Design of a robot head with arm-type antennae for emotional expression **2007**,		1
25	Design of novel haptic mouse and its applications		1
24	Control of multiple DOF hybrid haptic interface with active/passive actuators **2005**,		1
23	Force feedback for a spine biopsy simulator with volume graphic model		1
22	Efficient formulation approach for the forward kinematics of the 3-6 Stewart-Gough Platform		1
21	A sensor-based obstacle avoidance for a redundant manipulator using a velocity potential function		1
20	ViO-Com: Feed-Forward Compensation Using Vision-Based Optimization for High-Precision Surgical Manipulation. *IEEE Robotics and Automation Letters*, **2022**, 7, 263-270	4.2	1
19	A novel microsurgery robot mechanism with mechanical motion scalability for intraocular and reconstructive surgery. *International Journal of Medical Robotics and Computer Assisted Surgery*, **2021**, 17, e2240	2.9	1
18	. *IEEE Robotics and Automation Letters*, **2021**, 6, 3577-3584	4.2	1
17	Robotic handler for interchangeability with various size of laparoscope **2016**,		1
16	A highly intuitive and ergonomic redundant joint master device for four-degrees of freedom flexible endoscopic surgery robot. *International Journal of Medical Robotics and Computer Assisted Surgery*, **2021**, 17, 1-14	2.9	1
15	Design and Analysis of High-Stiffness Hyperredundant Manipulator With Sigma-Shaped Wire Path and Rolling Joints. *IEEE Robotics and Automation Letters*, **2021**, 6, 7357-7364	4.2	1
14	Intuitive master device for endoscopic robots with visual-motor correspondence.. *International Journal of Medical Robotics and Computer Assisted Surgery*, **2022**, e2397	2.9	1
13	A Motion Similarity Measurement Method of Two Mobile Devices for Safety Hook Fastening State Recognition. *IEEE Access*, **2022**, 10, 8804-8815	3.5	0
12	Payload optimization of surgical instruments with rolling joint mechanisms		0

11	Rendering Strategy to Counter Mutual Masking Effect in Multiple Tactile Feedback. *Applied Sciences (Switzerland)*, **2020**, 10, 4990	2.6	0
10	Bed-mounted Laparoscopic Surgical Robot System with Novel Positioning Arm Mechanism.. *International Journal of Medical Robotics and Computer Assisted Surgery*, **2022**, e2402	2.9	0
9	A Fuzzy Intimacy Space Model to Develop Human Robot Attitudinal Relationship. *IEEE Transactions on Systems, Man and Cybernetics, Part C: Applications and Reviews*, **2012**, 42, 1031-1041		
8	Correction to A Sigmoid-Colon-Straightening Soft Actuator With Peristaltic Motion for Colonoscopy Insertion Assistance: Easycolon [Apr 21 3577-3584]. *IEEE Robotics and Automation Letters*, **2021**, 6, 5736-5736	4.2	
7	Analysis of tendon tension and hysteresis by tendon twisting and development of anti-twist tendon mechanism of robotic surgical instruments.. *International Journal of Medical Robotics and Computer Assisted Surgery*, **2021**, e2357	2.9	
6	. *IEEE Access*, **2021**, 9, 27416-27427	3.5	
5	North Directional Imaging of a LEO Satellite Using Yaw Angle Compensation. *International Journal of Aeronautical and Space Sciences*, **2018**, 19, 751-761	1.2	
4	A novel encountered-type master device with precise manipulation for robot-assisted microsurgery. *International Journal of Medical Robotics and Computer Assisted Surgery*, **2021**, 17, e2314	2.9	
3	Body Shape-Guided Motion Retargeting to Reduce Effort on Human to Humanoid Landmark Placements. *IEEE Access*, **2021**, 9, 40996-41009	3.5	
2	An Optical Colon Contour Tracking System for Robot-aided Colonoscopy. *Informatik Aktuell*, **2021**, 67-72	0.3	
1	Intuitive endoscopic robot master device with image orientation correction.. *International Journal of Medical Robotics and Computer Assisted Surgery*, **2022**, e2415	2.9	