Jung Kim

List of Publications by Citations

123 papers	1,902 citations	22 h-index	39 g-index
152 ext. papers	2,279 ext. citations	3.6 avg, IF	5.17 L-index

#	Paper	IF	Citations
123	Current hand exoskeleton technologies for rehabilitation and assistive engineering. *International Journal of Precision Engineering and Manufacturing*, **2012**, 13, 807-824	1.7	319
122	Pressure Insensitive Strain Sensor with Facile Solution-Based Process for Tactile Sensing Applications. *ACS Nano*, **2018**, 12, 7546-7553	16.7	108
121	Measurement and characterization of soft tissue behavior with surface deformation and force response under large deformations. *Medical Image Analysis*, **2010**, 14, 138-48	15.4	87
120	Nanowire-integrated microfluidic devices for facile and reagent-free mechanical cell lysis. *Lab on A Chip*, **2012**, 12, 2914-21	7.2	60
119	Soft Nanocomposite Based Multi-point, Multi-directional Strain Mapping Sensor Using Anisotropic Electrical Impedance Tomography. *Scientific Reports*, **2017**, 7, 39837	4.9	58
118	Mechanical property characterization of prostate cancer using a minimally motorized indenter in an ex vivo indentation experiment. *Urology*, **2010**, 76, 1007-11	1.6	57
117	Real-time pinch force estimation by surface electromyography using an artificial neural network. *Medical Engineering and Physics*, **2010**, 32, 429-36	2.4	56
116	In vivo mechanical behavior of intra-abdominal organs. *IEEE Transactions on Biomedical Engineering*, **2006**, 53, 2129-38	5	53
115	Development and quantitative performance evaluation of a noninvasive EMG computer interface. *IEEE Transactions on Biomedical Engineering*, **2009**, 56, 188-91	5	46
114	Direct synthesis and integration of functional nanostructures in microfluidic devices. *Lab on A Chip*, **2011**, 11, 1946-51	7.2	45
113	Highly Uniform and Low Hysteresis Piezoresistive Pressure Sensors Based on Chemical Grafting of Polypyrrole on Elastomer Template with Uniform Pore Size. *Small*, **2019**, 15, e1901744	11	40
112	Robotic palpation and mechanical property characterization for abnormal tissue localization. *Medical and Biological Engineering and Computing*, **2012**, 50, 961-71	3.1	38
111	Characterization of viscoelastic soft tissue properties from in vivo animal experiments and inverse FE parameter estimation. *Lecture Notes in Computer Science*, **2005**, 8, 599-606	0.9	34
110	Efficient soft tissue characterization under large deformations in medical simulations. *International Journal of Precision Engineering and Manufacturing*, **2009**, 10, 115-121	1.7	32
109	Estimation of elbow flexion force during isometric muscle contraction from mechanomyography and electromyography. *Medical and Biological Engineering and Computing*, **2010**, 48, 1149-57	3.1	31
108	Quantum dot-based immunoassay enhanced by high-density vertical ZnO nanowire array. *Biosensors and Bioelectronics*, **2014**, 55, 209-15	11.8	29
107	A Haptic Interaction Method Using Visual Information and Physically Based Modeling. *IEEE/ASME Transactions on Mechatronics*, **2010**, 15, 636-645	5.5	28

106	Recognition of walking environments and gait period by surface electromyography. *Frontiers of Information Technology and Electronic Engineering*, **2019**, 20, 342-352	2.2	27
105	Synergy matrices to estimate fluid wrist movements by surface electromyography. *Medical Engineering and Physics*, **2011**, 33, 916-23	2.4	27
104	Design and locomotion control of a hydraulic lower extremity exoskeleton for mobility augmentation. *Mechatronics*, **2017**, 46, 32-45	3	24
103	Design and characterization of a photo-sensor based force measurement unit (FMU). *Sensors and Actuators A: Physical*, **2012**, 182, 49-56	3.9	22
102	Virtual surgery simulation for medical training using multi-resolution organ models. *International Journal of Medical Robotics and Computer Assisted Surgery*, **2007**, 3, 149-58	2.9	22
101	Robotic palpation-based mechanical property mapping for diagnosis of prostate cancer. *Journal of Endourology*, **2011**, 25, 851-7	2.7	21
100	Graphic and haptic modelling of the oesophagus for VR-based medical simulation. *International Journal of Medical Robotics and Computer Assisted Surgery*, **2009**, 5, 257-66	2.9	21
99	Power-assistive finger exoskeleton with a palmar opening at the fingerpad. *IEEE Transactions on Biomedical Engineering*, **2014**, 61, 2688-97	5	20
98	Feasibility of using an artificial neural network model to estimate the elbow flexion force from mechanomyography. *Journal of Neuroscience Methods*, **2011**, 194, 386-93	3	20
97	A Study on Estimation of Joint Force Through Isometric Index Finger Abduction With the Help of SEMG Peaks for Biomedical Applications. *IEEE Transactions on Cybernetics*, **2016**, 46, 2-8	10.2	19
96	A practical strategy for sEMG-based knee joint moment estimation during gait and its validation in individuals with cerebral palsy. *IEEE Transactions on Biomedical Engineering*, **2012**, 59, 1480-7	5	18
95	An efficient soft tissue characterization algorithm from in vivo indentation experiments for medical simulation. *International Journal of Medical Robotics and Computer Assisted Surgery*, **2008**, 4, 277-85	2.9	17
94	Estimation of flexible needle deflection in layered soft tissues with different elastic moduli. *Medical and Biological Engineering and Computing*, **2014**, 52, 729-40	3.1	16
93	Active muscle stiffness sensor based on piezoelectric resonance for muscle contraction estimation. *Sensors and Actuators A: Physical*, **2013**, 194, 212-219	3.9	16
92	Characterization of cellular elastic modulus using structure based double layer model. *Medical and Biological Engineering and Computing*, **2011**, 49, 453-62	3.1	16
91	Low-hysteresis and low-interference soft tactile sensor using a conductive coated porous elastomer and a structure for interference reduction. *Sensors and Actuators A: Physical*, **2019**, 295, 541-550	3.9	15
90	Printable skin adhesive stretch sensor for measuring multi-axis human joint angles **2016**,		15
89	Design of an optical soft sensor for measuring fingertip force and contact recognition. *International Journal of Control, Automation and Systems*, **2017**, 15, 16-24	2.9	14

88	Backdrivable and Fully-Portable Pneumatic Back Support Exoskeleton for Lifting Assistance. *IEEE Robotics and Automation Letters*, **2020**, 5, 2047-2053	4.2	14
87	Rapid, High-Throughput, and Direct Molecular Beacon Delivery to Human Cancer Cells Using a Nanowire-Incorporated and Pneumatic Pressure-Driven Microdevice. *Small*, **2015**, 11, 6215-24	11	14
86	Exogenous Gene Integration for Microalgal Cell Transformation Using a Nanowire-Incorporated Microdevice. *ACS Applied Materials & Interfaces*, **2015**, 7, 27554-61	9.5	14
85	A Real-time EMG-based Assistive Computer Interface for the Upper Limb Disabled **2007**,		14
84	Local property characterization of prostate glands using inhomogeneous modeling based on tumor volume and location analysis. *Medical and Biological Engineering and Computing*, **2013**, 51, 197-205	3.1	13
83	. *IEEE Robotics and Automation Letters*, **2018**, 3, 4351-4358	4.2	12
82	Deep Neural Network Based Electrical Impedance Tomographic Sensing Methodology for Large-Area Robotic Tactile Sensing. *IEEE Transactions on Robotics*, **2021**, 1-14	6.5	12
81	Ranking hand movements for myoelectric pattern recognition considering forearm muscle structure. *Medical and Biological Engineering and Computing*, **2017**, 55, 1507-1518	3.1	11
80	Deep Neural Network Approach in Electrical Impedance Tomography-based Real-time Soft Tactile Sensor **2019**,		11
79	Feedforward Motion Control With a Variable Stiffness Actuator Inspired by Muscle Cross-Bridge Kinematics. *IEEE Transactions on Robotics*, **2019**, 35, 747-760	6.5	10
78	Evaluation of Telerobotic Shared Control Strategy for Efficient Single-Cell Manipulation. *IEEE Transactions on Automation Science and Engineering*, **2012**, 9, 402-406	4.9	10
77	Real-time thumb-tip force predictions from noninvasive biosignals and biomechanical models. *International Journal of Precision Engineering and Manufacturing*, **2012**, 13, 1679-1688	1.7	10
76	Dispenser printing of piezo-resistive nanocomposite on woven elastic fabric and hysteresis compensation for skin-mountable stretch sensing. *Smart Materials and Structures*, **2018**, 27, 025017	3.4	9
75	Internal Array Electrodes Improve the Spatial Resolution of Soft Tactile Sensors Based on Electrical Resistance Tomography **2019**,		9
74	An SEMG computer interface using three myoelectric sites for proportional two-dimensional cursor motion control and clicking for individuals with spinal cord injuries. *Medical Engineering and Physics*, **2013**, 35, 777-83	2.4	9
73	Robotic system with sweeping palpation and needle biopsy for prostate cancer diagnosis. *International Journal of Medical Robotics and Computer Assisted Surgery*, **2014**, 10, 356-67	2.9	9
72	Noninvasive sEMG-based control for humanoid robot teleoperated navigation. *International Journal of Precision Engineering and Manufacturing*, **2011**, 12, 1105-1110	1.7	9
71	Kinematic-based locomotion mode recognition for power augmentation exoskeleton. *International Journal of Advanced Robotic Systems*, **2017**, 14, 172988141773032	1.4	8

70	Design of an Inflatable Wrinkle Actuator With Fast Inflation/Deflation Responses for Wearable Suits. *IEEE Robotics and Automation Letters*, **2020**, 5, 3799-3805	4.2	8
69	Performance estimation of the lower limb exoskeleton for plantarflexion using surface electromyography (sEMG) signals. *Journal of Biomechanical Science and Engineering*, **2017**, 12, 16-00595-16-00595	0.8	8
68	Comparative study of a muscle stiffness sensor and electromyography and mechanomyography under fatigue conditions. *Medical and Biological Engineering and Computing*, **2015**, 53, 577-88	3.1	7
67	Development of an MR-compatible hand exoskeleton that is capable of providing interactive robotic rehabilitation during fMRI imaging. *Medical and Biological Engineering and Computing*, **2018**, 56, 261-272	3.1	7
66	Custom optoelectronic force sensor based ground reaction force (GRF) measurement system for providing absolute force **2016**,		7
65	Comparative study on the differential mechanical properties of human liver cancer and normal cells. *Animal Cells and Systems*, **2013**, 17, 170-178	2.3	7
64	Human haptic perception is interrupted by explorative stops of milliseconds. *Frontiers in Psychology* , **2014**, 5, 292	3.4	7
63	An ERT-based Robotic Skin with Sparsely Distributed Electrodes: Structure, Fabrication, and DNN-based Signal Processing **2020**,		7
62	Development of a Bendable Outsole Biaxial Ground Reaction Force Measurement System. *Sensors*, **2019**, 19,	3.8	6
61	Pneumatic AFO Powered by a Miniature Custom Compressor for Drop Foot Correction. *IEEE Transactions on Neural Systems and Rehabilitation Engineering*, **2020**, 28, 1781-1789	4.8	6
60	SMAFO: Stiffness modulated Ankle Foot Orthosis for a patient with foot drop **2015**,		6
59	Wireless Ground Reaction Force Sensing System Using a Mechanically Decoupled Two-Dimensional Force Sensor. *IEEE/ASME Transactions on Mechatronics*, **2020**, 25, 66-75	5.5	6
58	Design of an MR-compatible biopsy needle manipulator using pull-pull cable transmission. *International Journal of Precision Engineering and Manufacturing*, **2016**, 17, 1129-1137	1.7	6
57	Friction coefficient for the quantification of needle grasp in the lifting-thrusting method. *International Journal of Precision Engineering and Manufacturing*, **2014**, 15, 1429-1434	1.7	5
56	Digital rectal examination in a simulated environment using sweeping palpation and mechanical localization. *International Journal of Precision Engineering and Manufacturing*, **2014**, 15, 169-175	1.7	5
55	Development of a surgical simulator for laparoscopic esophageal procedures. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society*, **2006**, 2006, 819-22		5
54	Characterization of Spastic Ankle Flexors Based on Viscoelastic Modeling for Accurate Diagnosis. *International Journal of Control, Automation and Systems*, **2020**, 18, 102-113	2.9	5
53	Adaptive Optimal Measurement Algorithm for ERT-based Large-area Tactile Sensors. *IEEE/ASME Transactions on Mechatronics*, **2021**, 1-1	5.5	5

52	Backlash Compensation for Accurate Control of Biopsy Needle Manipulators having Long Cable Transmission. *International Journal of Precision Engineering and Manufacturing*, **2018**, 19, 675-684	1.7	5
51	Indenter study: associations between prostate elasticity and lower urinary tract symptoms. *Urology*, **2014**, 83, 544-8	1.6	4
50	Evaluation of telerobotic shared control for efficient manipulation of single-cells in microinjection **2011**,		4
49	Robotic system for hybrid diagnosis of prostate cancer: Design and experimentation **2011**,		4
48	Thumb-tip force estimation from sEMG and a musculoskeletal model for real-time finger prosthesis **2009**,		4
47	Dye Sensitized Solar Cell with P(VDF-CO-HFP) Gel Electrolyte. *Molecular Crystals and Liquid Crystals*, **2004**, 424, 241-244	0.5	4
46	A Finger Grip Force Sensor with an Open-Pad Structure for Glove-Type Assistive Devices. *Sensors*, **2019**, 20,	3.8	4
45	Piezoresistive textile layer and distributed electrode structure for soft whole-body tactile skin. *Smart Materials and Structures*, **2021**, 30, 085036	3.4	4
44	Force estimation in fatigue condition using a muscle-twitch model during isometric finger contraction. *Medical Engineering and Physics*, **2017**, 50, 103-108	2.4	3
43	Harmonic analysis of pulse morphology variability for pulse smoothness assessment. *Biomedical Signal Processing and Control*, **2018**, 44, 1-11	4.9	3
42	Electromagnetic tracking of needle intervention for sacral nerve stimulation using the image-guided surgery toolkit (IGSTK). *International Journal of Precision Engineering and Manufacturing*, **2013**, 14, 2015-2020	1.7	3
41	Development of Self-Stabilizing Manipulator Inspired by the Musculoskeletal System Using the Lyapunov Method. *IEEE Transactions on Robotics*, **2017**, 33, 1425-1437	6.5	3
40	MR-compatible hand exoskeleton for monitoring brain activity during active assistance. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2015**, 2015, 5752-5	0.9	3
39	Real-time estimation of thumb-tip forces using surface electromyogram for a novel human-machine interface **2010**,		3
38	Development of a myoelectric joystick: A preliminary study **2010**,		3
37	Robotic palpation system for prostate cancer detection **2010**,		3
36	Understanding of hands and task characteristics for development of biomimetic robot hands **2008**,		3
35	An Efficient Soft Tissue Characterization Method for Haptic Rendering of Soft Tissue Deformation in Medical Simulation **2007**,		3

34	Sim-To-Real Transfer Learning Approach for Tracking Multi-DOF Ankle Motions Using Soft Strain Sensors. *IEEE Robotics and Automation Letters*, **2020**, 5, 3525-3532	4.2	2
33	A Mechatronic Mirror-Image Motion Device for Symmetric Upper-Limb Rehabilitation. *International Journal of Precision Engineering and Manufacturing*, **2020**, 21, 947-956	1.7	2
32	Estimating grip forces with a tactilely transparent finger exoskeleton for pinch grip force assistance **2014**,		2
31	Foot pronation monitoring using wireless biaxial force sensing system **2015**,		2
30	Finger flexion force sensor based on volar displacement of flexor tendon **2012**,		2
29	Development of mirror image motion system with sEMG for shoulder rehabilitation of post-stroke hemiplegic patients. *International Journal of Precision Engineering and Manufacturing*, **2012**, 13, 1473-1479	1.7	2
28	Variation of Dynamic Muscle Model during Fatigue-Inducing Voluntary Contraction **2013**,		2
27	Development of real-time muscle stiffness sensor based on resonance frequency for physical human robot interactions. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2012**, 2012, 2367-70	0.9	2
26	Influence of motion artifacts on photoplethysmographic signals for measuring pulse rates **2008**,		2
25	Development and Performance Evaluation of a Neural Signal-based Assistive Computer Interface **2007**,		2
24	Proof-of-concept of a Pneumatic Ankle Foot Orthosis Powered by a Custom Compressor for Drop Foot Correction **2020**,		2
23	Qualitative Stability Analysis of Soft Hand Exoskeleton Based on Tendon-driven Mechanism. *International Journal of Precision Engineering and Manufacturing*, **2020**, 21, 2095-2104	1.7	2
22	UVtac: Switchable UV Marker-Based Tactile Sensing Finger for Effective Force Estimation and Object Localization. *IEEE Robotics and Automation Letters*, **2022**, 1-1	4.2	2
21	A Large-Scale Fabric-Based Tactile Sensor Using Electrical Resistance Tomography. *Lecture Notes in Electrical Engineering*, **2019**, 107-109	0.2	1
20	Design of a novel tremor suppression device using a linear delta manipulator for micromanipulation **2013**,		1
19	Powered finger exoskeleton having partially open fingerpad for flexion force assistance **2013**,		1
18	Wireless Multi-Axial Force Sensing Shoe for Gait Abnormalities Monitoring **2015**,		1
17	Optical muscle activation sensors for estimating upper limb force level **2011**,		1

16	A physically-based haptic rendering for telemanipulation with visual information: Macro and micro applications **2008**,		1
15	Development of a wearable health monitoring device with motion artifact reduced algorithm (ICCAS 2007) **2007**,		1
14	Needle Insertion Force of Biological Soft Tissue for Haptic based Intravenous Injection Simulator. *Journal of the Korean Society for Precision Engineering*, **2012**, 29, 222-228	0.3	1
13	Compact Flat Fabric Pneumatic Artificial Muscle (ffPAM) for Soft Wearable Robotic Devices. *IEEE Robotics and Automation Letters*, **2021**, 6, 2603-2610	4.2	1
12	Development of an interactive game-based mirror image hand rehabilitation system. *Intelligent Service Robotics*, **2019**, 12, 149-157	2.6	1
11	Human elbow motor learning skills of varying loads: Proof of internal model generation using joint stiffness estimation. *Journal of Biomechanical Science and Engineering*, **2021**, 16, 21-00088-21-00088	0.8	1
10	Feasibility of proportional EMG control for a hand exoskeleton: A Fitts□Law approach. *IFAC-PapersOnLine*, **2018**, 51, 214-219	0.7	1
9	Implementation issues of EMG-based motion intention detection for exoskeletal robots * **2018**,		1
8	Surface Electromyography Characteristics for Motion Intention Recognition and Implementation Issues in Lower-limb Exoskeletons. *International Journal of Control, Automation and Systems*, **2022**, 20, 1018-1028	2.9	1
7	Inclusion detection with haptic-palpation system for medical telediagnosis. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2009**, 2009, 4595-8	0.9	0
6	ESTIMATION OF SOFT TISSUE'S MECHANICAL PROPERTIES WITH IDENTATION EXPERIMENT AND OPTIMIZATION AHLGOLITHM(3A2 Cellular & Tissue Engineering & Biomaterials II). *The Proceedings of the Asian Pacific Conference on Biomechanics Emerging Science and Technology in Biomechanics*, **2007**, 2007.3, S174		0
5	Molecular Delivery: Rapid, High-Throughput, and Direct Molecular Beacon Delivery to Human Cancer Cells Using a Nanowire-Incorporated and Pneumatic Pressure-Driven Microdevice (Small 46/2015). *Small*, **2015**, 11, 6214-6214	11	
4	A Theoretical Model for an Inflatable Wrinkle Bending Actuator. *Journal of the Korean Society for Precision Engineering*, **2020**, 37, 503-508	0.3	
3	Development of Wearable Sensing Suit for Monitoring Wrist Joint Motions and Deep Neural Network-based Calibration Method. *Journal of the Korean Society for Precision Engineering*, **2020**, 37, 765-771	0.3	
2	Investigation of the Effect of Weighting between sEMG and Interaction Force in Intention Extraction for the Control of an Upper-Limb Assistive Device. *Journal of Medical Robotics Research*, **2017**, 02, 1740005	1.1	
1	An Instrumentation for Force and Motion Measurement in Transgastric NOTES. *The Abstracts of the International Conference on Advanced Mechatronics Toward Evolutionary Fusion of IT and Mechatronics ICAM*, **2010**, 2010.5, 731-736		