

# Jung Kim

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

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	UVtac: Switchable UV Marker-Based Tactile Sensing Finger for Effective Force Estimation and Object Localization. <i>IEEE Robotics and Automation Letters</i> , <b>2022</b> , 1-1	4.2	2
122	Surface Electromyography Characteristics for Motion Intention Recognition and Implementation Issues in Lower-limb Exoskeletons. <i>International Journal of Control, Automation and Systems</i> , <b>2022</b> , 20, 1018-1028	2.9	1
121	Compact Flat Fabric Pneumatic Artificial Muscle (ffPAM) for Soft Wearable Robotic Devices. <i>IEEE Robotics and Automation Letters</i> , <b>2021</b> , 6, 2603-2610	4.2	1
120	Deep Neural Network Based Electrical Impedance Tomographic Sensing Methodology for Large-Area Robotic Tactile Sensing. <i>IEEE Transactions on Robotics</i> , <b>2021</b> , 1-14	6.5	12
119	Adaptive Optimal Measurement Algorithm for ERT-based Large-area Tactile Sensors. <i>IEEE/ASME Transactions on Mechatronics</i> , <b>2021</b> , 1-1	5.5	5
118	Human elbow motor learning skills of varying loads: Proof of internal model generation using joint stiffness estimation. <i>Journal of Biomechanical Science and Engineering</i> , <b>2021</b> , 16, 21-00088-21-00088	0.8	1
117	Piezoresistive textile layer and distributed electrode structure for soft whole-body tactile skin. <i>Smart Materials and Structures</i> , <b>2021</b> , 30, 085036	3.4	4
116	Pneumatic AFO Powered by a Miniature Custom Compressor for Drop Foot Correction. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , <b>2020</b> , 28, 1781-1789	4.8	6
115	Sim-To-Real Transfer Learning Approach for Tracking Multi-DOF Ankle Motions Using Soft Strain Sensors. <i>IEEE Robotics and Automation Letters</i> , <b>2020</b> , 5, 3525-3532	4.2	2
114	Design of an Inflatable Wrinkle Actuator With Fast Inflation/Deflation Responses for Wearable Suits. <i>IEEE Robotics and Automation Letters</i> , <b>2020</b> , 5, 3799-3805	4.2	8
113	A Mechatronic Mirror-Image Motion Device for Symmetric Upper-Limb Rehabilitation. <i>International Journal of Precision Engineering and Manufacturing</i> , <b>2020</b> , 21, 947-956	1.7	2
112	Backdrivable and Fully-Portable Pneumatic Back Support Exoskeleton for Lifting Assistance. <i>IEEE Robotics and Automation Letters</i> , <b>2020</b> , 5, 2047-2053	4.2	14
111	A Theoretical Model for an Inflatable Wrinkle Bending Actuator. <i>Journal of the Korean Society for Precision Engineering</i> , <b>2020</b> , 37, 503-508	0.3	
110	Development of Wearable Sensing Suit for Monitoring Wrist Joint Motions and Deep Neural Network-based Calibration Method. <i>Journal of the Korean Society for Precision Engineering</i> , <b>2020</b> , 37, 765-771	0.3	
109	Wireless Ground Reaction Force Sensing System Using a Mechanically Decoupled Two-Dimensional Force Sensor. <i>IEEE/ASME Transactions on Mechatronics</i> , <b>2020</b> , 25, 66-75	5.5	6
108	Characterization of Spastic Ankle Flexors Based on Viscoelastic Modeling for Accurate Diagnosis. <i>International Journal of Control, Automation and Systems</i> , <b>2020</b> , 18, 102-113	2.9	5
107	Proof-of-concept of a Pneumatic Ankle Foot Orthosis Powered by a Custom Compressor for Drop Foot Correction <b>2020</b> ,		2

106	An ERT-based Robotic Skin with Sparsely Distributed Electrodes: Structure, Fabrication, and DNN-based Signal Processing <b>2020</b> ,		7
105	Qualitative Stability Analysis of Soft Hand Exoskeleton Based on Tendon-driven Mechanism. <i>International Journal of Precision Engineering and Manufacturing</i> , <b>2020</b> , 21, 2095-2104	1.7	2
104	A Large-Scale Fabric-Based Tactile Sensor Using Electrical Resistance Tomography. <i>Lecture Notes in Electrical Engineering</i> , <b>2019</b> , 107-109	0.2	1
103	Low-hysteresis and low-interference soft tactile sensor using a conductive coated porous elastomer and a structure for interference reduction. <i>Sensors and Actuators A: Physical</i> , <b>2019</b> , 295, 541-550	3.9	15
102	Development of a Bendable Outsole Biaxial Ground Reaction Force Measurement System. <i>Sensors</i> , <b>2019</b> , 19,	3.8	6
101	Highly Uniform and Low Hysteresis Piezoresistive Pressure Sensors Based on Chemical Grafting of Polypyrrole on Elastomer Template with Uniform Pore Size. <i>Small</i> , <b>2019</b> , 15, e1901744	11	40
100	Feedforward Motion Control With a Variable Stiffness Actuator Inspired by Muscle Cross-Bridge Kinematics. <i>IEEE Transactions on Robotics</i> , <b>2019</b> , 35, 747-760	6.5	10
99	Recognition of walking environments and gait period by surface electromyography. <i>Frontiers of Information Technology and Electronic Engineering</i> , <b>2019</b> , 20, 342-352	2.2	27
98	Internal Array Electrodes Improve the Spatial Resolution of Soft Tactile Sensors Based on Electrical Resistance Tomography <b>2019</b> ,		9
97	A Finger Grip Force Sensor with an Open-Pad Structure for Glove-Type Assistive Devices. <i>Sensors</i> , <b>2019</b> , 20,	3.8	4
96	Development of an interactive game-based mirror image hand rehabilitation system. <i>Intelligent Service Robotics</i> , <b>2019</b> , 12, 149-157	2.6	1
95	Deep Neural Network Approach in Electrical Impedance Tomography-based Real-time Soft Tactile Sensor <b>2019</b> ,		11
94	Dispenser printing of piezo-resistive nanocomposite on woven elastic fabric and hysteresis compensation for skin-mountable stretch sensing. <i>Smart Materials and Structures</i> , <b>2018</b> , 27, 025017	3.4	9
93	Harmonic analysis of pulse morphology variability for pulse smoothness assessment. <i>Biomedical Signal Processing and Control</i> , <b>2018</b> , 44, 1-11	4.9	3
92	Development of an MR-compatible hand exoskeleton that is capable of providing interactive robotic rehabilitation during fMRI imaging. <i>Medical and Biological Engineering and Computing</i> , <b>2018</b> , 56, 261-272	3.1	7
91	Pressure Insensitive Strain Sensor with Facile Solution-Based Process for Tactile Sensing Applications. <i>ACS Nano</i> , <b>2018</b> , 12, 7546-7553	16.7	108
90	. <i>IEEE Robotics and Automation Letters</i> , <b>2018</b> , 3, 4351-4358	4.2	12
89	Feasibility of proportional EMG control for a hand exoskeleton: A FittsLaw approach. <i>IFAC-PapersOnLine</i> , <b>2018</b> , 51, 214-219	0.7	1

88	Implementation issues of EMG-based motion intention detection for exoskeletal robots * <b>2018</b> ,		1
87	Backlash Compensation for Accurate Control of Biopsy Needle Manipulators having Long Cable Transmission. <i>International Journal of Precision Engineering and Manufacturing</i> , <b>2018</b> , 19, 675-684	1.7	5
86	Ranking hand movements for myoelectric pattern recognition considering forearm muscle structure. <i>Medical and Biological Engineering and Computing</i> , <b>2017</b> , 55, 1507-1518	3.1	11
85	Soft Nanocomposite Based Multi-point, Multi-directional Strain Mapping Sensor Using Anisotropic Electrical Impedance Tomography. <i>Scientific Reports</i> , <b>2017</b> , 7, 39837	4.9	58
84	Design of an optical soft sensor for measuring fingertip force and contact recognition. <i>International Journal of Control, Automation and Systems</i> , <b>2017</b> , 15, 16-24	2.9	14
83	Kinematic-based locomotion mode recognition for power augmentation exoskeleton. <i>International Journal of Advanced Robotic Systems</i> , <b>2017</b> , 14, 172988141773032	1.4	8
82	Force estimation in fatigue condition using a muscle-twitch model during isometric finger contraction. <i>Medical Engineering and Physics</i> , <b>2017</b> , 50, 103-108	2.4	3
81	Development of Self-Stabilizing Manipulator Inspired by the Musculoskeletal System Using the Lyapunov Method. <i>IEEE Transactions on Robotics</i> , <b>2017</b> , 33, 1425-1437	6.5	3
80	Design and locomotion control of a hydraulic lower extremity exoskeleton for mobility augmentation. <i>Mechatronics</i> , <b>2017</b> , 46, 32-45	3	24
79	Performance estimation of the lower limb exoskeleton for plantarflexion using surface electromyography (sEMG) signals. <i>Journal of Biomechanical Science and Engineering</i> , <b>2017</b> , 12, 16-00595-16-00595	0.8	8
78	Investigation of the Effect of Weighting between sEMG and Interaction Force in Intention Extraction for the Control of an Upper-Limb Assistive Device. <i>Journal of Medical Robotics Research</i> , <b>2017</b> , 02, 1740005	1.1	
77	A Study on Estimation of Joint Force Through Isometric Index Finger Abduction With the Help of sEMG Peaks for Biomedical Applications. <i>IEEE Transactions on Cybernetics</i> , <b>2016</b> , 46, 2-8	10.2	19
76	Custom optoelectronic force sensor based ground reaction force (GRF) measurement system for providing absolute force <b>2016</b> ,		7
75	Printable skin adhesive stretch sensor for measuring multi-axis human joint angles <b>2016</b> ,		15
74	Design of an MR-compatible biopsy needle manipulator using pull-pull cable transmission. <i>International Journal of Precision Engineering and Manufacturing</i> , <b>2016</b> , 17, 1129-1137	1.7	6
73	Comparative study of a muscle stiffness sensor and electromyography and mechanomyography under fatigue conditions. <i>Medical and Biological Engineering and Computing</i> , <b>2015</b> , 53, 577-88	3.1	7
72	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). <i>Small</i> , <b>2015</b> , 11, 6214-6214	11	
71	Wireless Multi-Axial Force Sensing Shoe for Gait Abnormalities Monitoring <b>2015</b> ,		1

70	Foot pronation monitoring using wireless biaxial force sensing system <b>2015</b> ,		2
69	Rapid, High-Throughput, and Direct Molecular Beacon Delivery to Human Cancer Cells Using a Nanowire-Incorporated and Pneumatic Pressure-Driven Microdevice. <i>Small</i> , <b>2015</b> , 11, 6215-24	11	14
68	SMAFO: Stiffness modulated Ankle Foot Orthosis for a patient with foot drop <b>2015</b> ,		6
67	Exogenous Gene Integration for Microalgal Cell Transformation Using a Nanowire-Incorporated Microdevice. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2015</b> , 7, 27554-61	9.5	14
66	MR-compatible hand exoskeleton for monitoring brain activity during active assistance. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference</i> , <b>2015</b> , 2015, 5752-5	0.9	3
65	Power-assistive finger exoskeleton with a palmar opening at the fingerpad. <i>IEEE Transactions on Biomedical Engineering</i> , <b>2014</b> , 61, 2688-97	5	20
64	Estimation of flexible needle deflection in layered soft tissues with different elastic moduli. <i>Medical and Biological Engineering and Computing</i> , <b>2014</b> , 52, 729-40	3.1	16
63	Friction coefficient for the quantification of needle grasp in the lifting-thrusting method. <i>International Journal of Precision Engineering and Manufacturing</i> , <b>2014</b> , 15, 1429-1434	1.7	5
62	Estimating grip forces with a tactiley transparent finger exoskeleton for pinch grip force assistance <b>2014</b> ,		2
61	Quantum dot-based immunoassay enhanced by high-density vertical ZnO nanowire array. <i>Biosensors and Bioelectronics</i> , <b>2014</b> , 55, 209-15	11.8	29
60	Human haptic perception is interrupted by explorative stops of milliseconds. <i>Frontiers in Psychology</i> , <b>2014</b> , 5, 292	3.4	7
59	Robotic system with sweeping palpation and needle biopsy for prostate cancer diagnosis. <i>International Journal of Medical Robotics and Computer Assisted Surgery</i> , <b>2014</b> , 10, 356-67	2.9	9
58	Indenter study: associations between prostate elasticity and lower urinary tract symptoms. <i>Urology</i> , <b>2014</b> , 83, 544-8	1.6	4
57	Digital rectal examination in a simulated environment using sweeping palpation and mechanical localization. <i>International Journal of Precision Engineering and Manufacturing</i> , <b>2014</b> , 15, 169-175	1.7	5
56	Electromagnetic tracking of needle intervention for sacral nerve stimulation using the image-guided surgery toolkit (IGSTK). <i>International Journal of Precision Engineering and Manufacturing</i> , <b>2013</b> , 14, 2015-2020	1.7	3
55	Comparative study on the differential mechanical properties of human liver cancer and normal cells. <i>Animal Cells and Systems</i> , <b>2013</b> , 17, 170-178	2.3	7
54	Design of a novel tremor suppression device using a linear delta manipulator for micromanipulation <b>2013</b> ,		1
53	Powered finger exoskeleton having partially open fingerpad for flexion force assistance <b>2013</b> ,		1

52	Active muscle stiffness sensor based on piezoelectric resonance for muscle contraction estimation. <i>Sensors and Actuators A: Physical</i> , <b>2013</b> , 194, 212-219	3.9	16
51	An SEMG computer interface using three myoelectric sites for proportional two-dimensional cursor motion control and clicking for individuals with spinal cord injuries. <i>Medical Engineering and Physics</i> , <b>2013</b> , 35, 777-83	2.4	9
50	Local property characterization of prostate glands using inhomogeneous modeling based on tumor volume and location analysis. <i>Medical and Biological Engineering and Computing</i> , <b>2013</b> , 51, 197-205	3.1	13
49	Variation of Dynamic Muscle Model during Fatigue-Inducing Voluntary Contraction <b>2013</b> ,		2
48	A practical strategy for sEMG-based knee joint moment estimation during gait and its validation in individuals with cerebral palsy. <i>IEEE Transactions on Biomedical Engineering</i> , <b>2012</b> , 59, 1480-7	5	18
47	Evaluation of Telerobotic Shared Control Strategy for Efficient Single-Cell Manipulation. <i>IEEE Transactions on Automation Science and Engineering</i> , <b>2012</b> , 9, 402-406	4.9	10
46	Finger flexion force sensor based on volar displacement of flexor tendon <b>2012</b> ,		2
45	Nanowire-integrated microfluidic devices for facile and reagent-free mechanical cell lysis. <i>Lab on A Chip</i> , <b>2012</b> , 12, 2914-21	7.2	60
44	Design and characterization of a photo-sensor based force measurement unit (FMU). <i>Sensors and Actuators A: Physical</i> , <b>2012</b> , 182, 49-56	3.9	22
43	Robotic palpation and mechanical property characterization for abnormal tissue localization. <i>Medical and Biological Engineering and Computing</i> , <b>2012</b> , 50, 961-71	3.1	38
42	Real-time thumb-tip force predictions from noninvasive biosignals and biomechanical models. <i>International Journal of Precision Engineering and Manufacturing</i> , <b>2012</b> , 13, 1679-1688	1.7	10
41	Current hand exoskeleton technologies for rehabilitation and assistive engineering. <i>International Journal of Precision Engineering and Manufacturing</i> , <b>2012</b> , 13, 807-824	1.7	319
40	Development of mirror image motion system with sEMG for shoulder rehabilitation of post-stroke hemiplegic patients. <i>International Journal of Precision Engineering and Manufacturing</i> , <b>2012</b> , 13, 1473-1479	1.7	2
39	Development of real-time muscle stiffness sensor based on resonance frequency for physical human robot interactions. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference</i> , <b>2012</b> , 2012, 2367-70	0.9	2
38	Needle Insertion Force of Biological Soft Tissue for Haptic based Intravenous Injection Simulator. <i>Journal of the Korean Society for Precision Engineering</i> , <b>2012</b> , 29, 222-228	0.3	1
37	Robotic palpation-based mechanical property mapping for diagnosis of prostate cancer. <i>Journal of Endourology</i> , <b>2011</b> , 25, 851-7	2.7	21
36	Evaluation of telerobotic shared control for efficient manipulation of single-cells in microinjection <b>2011</b> ,		4
35	Direct synthesis and integration of functional nanostructures in microfluidic devices. <i>Lab on A Chip</i> , <b>2011</b> , 11, 1946-51	7.2	45

34	Synergy matrices to estimate fluid wrist movements by surface electromyography. <i>Medical Engineering and Physics</i> , <b>2011</b> , 33, 916-23	2.4	27
33	Noninvasive sEMG-based control for humanoid robot teleoperated navigation. <i>International Journal of Precision Engineering and Manufacturing</i> , <b>2011</b> , 12, 1105-1110	1.7	9
32	Characterization of cellular elastic modulus using structure based double layer model. <i>Medical and Biological Engineering and Computing</i> , <b>2011</b> , 49, 453-62	3.1	16
31	Feasibility of using an artificial neural network model to estimate the elbow flexion force from mechanomyography. <i>Journal of Neuroscience Methods</i> , <b>2011</b> , 194, 386-93	3	20
30	Optical muscle activation sensors for estimating upper limb force level <b>2011</b> ,		1
29	Robotic system for hybrid diagnosis of prostate cancer: Design and experimentation <b>2011</b> ,		4
28	Real-time estimation of thumb-tip forces using surface electromyogram for a novel human-machine interface <b>2010</b> ,		3
27	Mechanical property characterization of prostate cancer using a minimally motorized indenter in an ex vivo indentation experiment. <i>Urology</i> , <b>2010</b> , 76, 1007-11	1.6	57
26	A Haptic Interaction Method Using Visual Information and Physically Based Modeling. <i>IEEE/ASME Transactions on Mechatronics</i> , <b>2010</b> , 15, 636-645	5.5	28
25	Development of a myoelectric joystick: A preliminary study <b>2010</b> ,		3
24	Robotic palpation system for prostate cancer detection <b>2010</b> ,		3
23	Real-time pinch force estimation by surface electromyography using an artificial neural network. <i>Medical Engineering and Physics</i> , <b>2010</b> , 32, 429-36	2.4	56
22	Estimation of elbow flexion force during isometric muscle contraction from mechanomyography and electromyography. <i>Medical and Biological Engineering and Computing</i> , <b>2010</b> , 48, 1149-57	3.1	31
21	Measurement and characterization of soft tissue behavior with surface deformation and force response under large deformations. <i>Medical Image Analysis</i> , <b>2010</b> , 14, 138-48	15.4	87
20	An Instrumentation for Force and Motion Measurement in Transgastric NOTES. <i>The Abstracts of the International Conference on Advanced Mechatronics Toward Evolutionary Fusion of IT and Mechatronics ICAM</i> , <b>2010</b> , 2010.5, 731-736		
19	Inclusion detection with haptic-palpation system for medical telediagnosis. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference</i> , <b>2009</b> , 2009, 4595-8	0.9	0
18	Development and quantitative performance evaluation of a noninvasive EMG computer interface. <i>IEEE Transactions on Biomedical Engineering</i> , <b>2009</b> , 56, 188-91	5	46
17	Efficient soft tissue characterization under large deformations in medical simulations. <i>International Journal of Precision Engineering and Manufacturing</i> , <b>2009</b> , 10, 115-121	1.7	32

16	Graphic and haptic modelling of the oesophagus for VR-based medical simulation. <i>International Journal of Medical Robotics and Computer Assisted Surgery</i> , <b>2009</b> , 5, 257-66	2.9	21
15	Thumb-tip force estimation from sEMG and a musculoskeletal model for real-time finger prosthesis <b>2009</b> ,		4
14	Understanding of hands and task characteristics for development of biomimetic robot hands <b>2008</b> ,		3
13	Influence of motion artifacts on photoplethysmographic signals for measuring pulse rates <b>2008</b> ,		2
12	A physically-based haptic rendering for telemanipulation with visual information: Macro and micro applications <b>2008</b> ,		1
11	An efficient soft tissue characterization algorithm from in vivo indentation experiments for medical simulation. <i>International Journal of Medical Robotics and Computer Assisted Surgery</i> , <b>2008</b> , 4, 277-85	2.9	17
10	Development of a wearable health monitoring device with motion artifact reduced algorithm (ICCAS 2007) <b>2007</b> ,		1
9	Virtual surgery simulation for medical training using multi-resolution organ models. <i>International Journal of Medical Robotics and Computer Assisted Surgery</i> , <b>2007</b> , 3, 149-58	2.9	22
8	An Efficient Soft Tissue Characterization Method for Haptic Rendering of Soft Tissue Deformation in Medical Simulation <b>2007</b> ,		3
7	Development and Performance Evaluation of a Neural Signal-based Assistive Computer Interface <b>2007</b> ,		2
6	A Real-time EMG-based Assistive Computer Interface for the Upper Limb Disabled <b>2007</b> ,		14
5	ESTIMATION OF SOFT TISSUE'S MECHANICAL PROPERTIES WITH IDENTATION EXPERIMENT AND OPTIMIZATION AHLGOLITHM(3A2 Cellular & Tissue Engineering & Biomaterials II). <i>The Proceedings of the Asian Pacific Conference on Biomechanics Emerging Science and Technology in Biomechanics</i> , <b>2007</b> , 2007, 2, 617-1		0
4	In vivo mechanical behavior of intra-abdominal organs. <i>IEEE Transactions on Biomedical Engineering</i> , <b>2006</b> , 53, 2129-38	5	53
3	Development of a surgical simulator for laparoscopic esophageal procedures. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society</i> , <b>2006</b> , 2006, 819-22		5
2	Characterization of viscoelastic soft tissue properties from in vivo animal experiments and inverse FE parameter estimation. <i>Lecture Notes in Computer Science</i> , <b>2005</b> , 8, 599-606	0.9	34
1	Dye Sensitized Solar Cell with P(VDF-CO-HFP) Gel Electrolyte. <i>Molecular Crystals and Liquid Crystals</i> , <b>2004</b> , 424, 241-244	0.5	4