Huicong Liu

List of Publications by Year in Descending Order

61 papers	2,607 citations	26 h-index	50 g-index
80 ext. papers	3,449 ext. citations	5.9 avg, IF	5.55 L-index

#	Paper	IF	Citations
61	Wearable multichannel pulse condition monitoring system based on flexible pressure sensor arrays.. *Microsystems and Nanoengineering*, **2022**, 8, 16	7.7	2
60	A high-performance triboelectric-electromagnetic hybrid wind energy harvester based on rotational tapered rollers aiming at outdoor IoT applications. *IScience*, **2021**, 24, 102300	6.1	19
59	Bioinspired soft caterpillar robot with ultra-stretchable bionic sensors based on functional liquid metal. *Nano Energy*, **2021**, 84, 105896	17.1	12
58	A Delta-Parallel-Inspired Human Machine Interface by Using Self-Powered Triboelectric Nanogenerator Toward 3D and VR/AR Manipulations. *Advanced Materials Technologies*, **2021**, 6, 2000912	6.8	10
57	Hybrid energy harvesting technology: From materials, structural design, system integration to applications. *Renewable and Sustainable Energy Reviews*, **2021**, 137, 110473	16.2	63
56	An Ultrasonic Proximity Sensing Skin for Robot Safety Control by Using Piezoelectric Micromachined Ultrasonic Transducers (PMUTs). *IEEE Sensors Journal*, **2021**, 1-1	4	5
55	Artificial Intelligence-Enabled Caregiving Walking Stick Powered by Ultra-Low-Frequency Human Motion. *ACS Nano*, **2021**,	16.7	25
54	All-weather, natural silent speech recognition via machine-learning-assisted tattoo-like electronics. *Npj Flexible Electronics*, **2021**, 5,	10.7	10
53	Haptic-feedback smart glove as a creative human-machine interface (HMI) for virtual/augmented reality applications. *Science Advances*, **2020**, 6, eaaz8693	14.3	177
52	An epidermal sEMG tattoo-like patch as a new human-machine interface for patients with loss of voice. *Microsystems and Nanoengineering*, **2020**, 6, 16	7.7	33
51	Advances in chemical sensing technology for enabling the next-generation self-sustainable integrated wearable system in the IoT era. *Nano Energy*, **2020**, 78, 105155	17.1	59
50	Study of an Electromagnetic Ocean Wave Energy Harvester Driven by an Efficient Swing Body Toward the Self-Powered Ocean Buoy Application. *IEEE Access*, **2019**, 7, 129758-129769	3.5	19
49	A Low-Frequency MEMS Piezoelectric Energy Harvesting System Based on Frequency Up-Conversion Mechanism. *Micromachines*, **2019**, 10,	3.3	22
48	Intuitive-augmented human-machine multidimensional nano-manipulation terminal using triboelectric stretchable strip sensors based on minimalist design. *Nano Energy*, **2019**, 60, 440-448	17.1	34
47	A rotational pendulum based electromagnetic/triboelectric hybrid-generator for ultra-low-frequency vibrations aiming at human motion and blue energy applications. *Nano Energy*, **2019**, 63, 103871	17.1	92
46	Flexible Ultrasonic Transducer Array with Bulk PZT for Adjuvant Treatment of Bone Injury. *Sensors*, **2019**, 20,	3.8	9
45	Scanning Liquid-Immersed Microsphere Optical Superresolution Imaging Based on Microrobotics Manipulation. *IEEE Nanotechnology Magazine*, **2018**, 17, 860-864	2.6	6

44	Novel augmented reality interface using a self-powered triboelectric based virtual reality 3D-control sensor. *Nano Energy*, **2018**, 51, 162-172	17.1	47
43	A Self-Powered Six-Axis Tactile Sensor by Using Triboelectric Mechanism. *Nanomaterials*, **2018**, 8,	5.4	11
42	Investigation of Position Sensing and Energy Harvesting of a Flexible Triboelectric Touch Pad. *Nanomaterials*, **2018**, 8,	5.4	21
41	A non-resonant rotational electromagnetic energy harvester for low-frequency and irregular human motion. *Applied Physics Letters*, **2018**, 113, 203901	3.4	85
40	A comprehensive review on piezoelectric energy harvesting technology: Materials, mechanisms, and applications. *Applied Physics Reviews*, **2018**, 5, 041306	17.3	316
39	Development of a Thermoelectric and Electromagnetic Hybrid Energy Harvester from Water Flow in an Irrigation System. *Micromachines*, **2018**, 9,	3.3	7
38	Design and experiment of an electromagnetic ocean wave energy harvesting device **2018**,		4
37	Study of a Hybrid Generator Based on Triboelectric and Electromagnetic Mechanisms. *IEEE Sensors Journal*, **2017**, 17, 3853-3860	4	14
36	A Study on Piezoelectric Energy-Harvesting Wireless Sensor Networks Deployed in a Weak Vibration Environment. *IEEE Sensors Journal*, **2017**, 17, 6770-6777	4	23
35	A rotational wearable energy harvester for human motion **2017**,		5
34	Modeling and verification of a piezoelectric frequency-up-conversion energy harvesting system. *Microsystem Technologies*, **2017**, 23, 2459-2466	1.7	12
33	A PZT Actuated Triple-Finger Gripper for Multi-Target Micromanipulation. *Micromachines*, **2017**, 8, 33	3.3	21
32	Large-Scale and Flexible Self-Powered Triboelectric Tactile Sensing Array for Sensitive Robot Skin. *Polymers*, **2017**, 9,	4.5	16
31	Topologically Optimized Nano-Positioning Stage Integrating with a Capacitive Comb Sensor. *Sensors*, **2017**, 17,	3.8	6
30	Electron Beam Irradiation Induced Multiwalled Carbon Nanotubes Fusion inside SEM. *Scanning*, **2017**, 2017, 8563931	1.6	2
29	A flexible capacitive tactile sensor for robot skin **2016**,		3
28	A hybrid flapping-leaf microgenerator for harvesting wind-flow energy **2016**,		3
27	The Design and Characterization of a Flexible Tactile Sensing Array for Robot Skin. *Sensors*, **2016**, 16,	3.8	32

26	A hybrid flapping-blade wind energy harvester based on vortex shedding effect. *Journal of Microelectromechanical Systems*, **2016**, 25, 845-847	2.5	29
25	A magnetic force induced frequency-up-conversion energy harvesting system **2016**,		1
24	A Pt/Au hybrid self-actuating nanorobot towards to durg delivery system **2015**,		1
23	An Intermittent Self-Powered Energy Harvesting System From Low-Frequency Hand Shaking. *IEEE Sensors Journal*, **2015**, 15, 4782-4790	4	38
22	Investigation of the Nonlinear Electromagnetic Energy Harvesters From Hand Shaking. *IEEE Sensors Journal*, **2015**, 15, 2356-2364	4	42
21	An Electromagnetic MEMS Energy Harvester Array with Multiple Vibration Modes. *Micromachines*, **2015**, 6, 984-992	3.3	30
20	An In-Plane Approximated Nonlinear MEMS Electromagnetic Energy Harvester. *Journal of Microelectromechanical Systems*, **2014**, 23, 740-749	2.5	37
19	Flow sensing and energy harvesting characteristics of a wind-driven piezoelectric Pb(Zr0.52, Ti0.48)O3 microcantilever. *Micro and Nano Letters*, **2014**, 9, 286-289	0.9	26
18	Ultra-wide frequency broadening mechanism for micro-scale electromagnetic energy harvester. *Applied Physics Letters*, **2014**, 104, 053901	3.4	49
17	A multi-frequency vibration-based MEMS electromagnetic energy harvesting device. *Sensors and Actuators A: Physical*, **2013**, 204, 37-43	3.9	73
16	A new energy harvester design for high power output at low frequencies. *Sensors and Actuators A: Physical*, **2013**, 199, 344-352	3.9	110
15	Low-frequency vibration-based energy harvester using a piezoelectric composite beam **2013**,		1
14	A Wideband Triboelectric Energy Harvester. *Journal of Physics: Conference Series*, **2013**, 476, 012128	0.3	4
13	Ultra-broadband electromagnetic MEMS vibration energy harvesting. *Journal of Physics: Conference Series*, **2013**, 476, 012049	0.3	3
12	Feasibility study of a 3D vibration-driven electromagnetic MEMS energy harvester with multiple vibration modes. *Journal of Micromechanics and Microengineering*, **2012**, 22, 125020	2	55
11	Piezoelectric MEMS-based wideband energy harvesting systems using a frequency-up-conversion cantilever stopper. *Sensors and Actuators A: Physical*, **2012**, 186, 242-248	3.9	148
10	Development of piezoelectric microcantilever flow sensor with wind-driven energy harvesting capability. *Applied Physics Letters*, **2012**, 100, 223905	3.4	91
9	Investigation of a MEMS piezoelectric energy harvester system with a frequency-widened-bandwidth mechanism introduced by mechanical stoppers. *Smart Materials and Structures*, **2012**, 21, 035005	3.4	167

8	A new S-shaped MEMS PZT cantilever for energy harvesting from low frequency vibrations below 30 Hz. *Microsystem Technologies*, **2012**, 18, 497-506	1.7	107
7	Investigation of a Piezoelectric Driven MEMS Mirror based on Single S-shaped PZT Actuator. *Procedia Engineering*, **2011**, 25, 701-704		3
6	Investigation of Piezoelectric MEMS-based Wideband Energy Harvesting System with Assembled Frequency-up- conversion Mechanism. *Procedia Engineering*, **2011**, 25, 725-728		8
5	Piezoelectric MEMS Energy Harvester for Low-Frequency Vibrations With Wideband Operation Range and Steadily Increased Output Power. *Journal of Microelectromechanical Systems*, **2011**, 20, 1131-1142	2.5	258
4	A MEMS-based piezoelectric cantilever patterned with PZT thin film array for harvesting energy from low frequency vibrations. *Physics Procedia*, **2011**, 19, 129-133		45
3	A scrape-through piezoelectric MEMS energy harvester with frequency broadband and up-conversion behaviors. *Microsystem Technologies*, **2011**, 17, 1747-1754	1.7	51
2	A MEMS-based wideband piezoelectric energy harvester system using mechanical stoppers **2011**,		1
1	A flexible triaxial force capacitive sensor with microstructure electrode and orthogonal microstructure		1