

Marvin Hm Cheng

List of Publications by Year in descending order

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52
papers

474
citations

933264

10
h-index

752573

20
g-index

52
all docs

52
docs citations

52
times ranked

516
citing authors

#	ARTICLE	IF	CITATIONS
1	3-Axis, Ultrahigh-Sensitivity, Miniature Acceleration Sensor. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2018, 8, 244-250.	1.4	4
2	Cataglyphis: An autonomous sample return rover. Journal of Field Robotics, 2018, 35, 248-274.	3.2	8
3	Virtual Interaction Between Patients and Occupational Therapists Using an Assistive Robotic Device With Cyber-Physical System. , 2018, , .		0
4	Compensation for Cross-Coupled Dynamics of Dual Twisted-String Actuation Systems. Journal of Control Science and Engineering, 2016, 2016, 1-13.	0.8	0
5	Low-Cost, High-Accuracy Method and Apparatus for Detecting Meat Spoilage. IEEE Transactions on Instrumentation and Measurement, 2016, 65, 1707-1715.	2.4	12
6	Design, fabrication, and control of twisted actuated robotic device. , 2016, , .		3
7	Resolution Enhancement Method Used for Force Sensing Resistor Array. Journal of Sensors, 2015, 2015, 1-12.	0.6	10
8	A versatile spatial resolution enhancement method for data acquisition. Measurement Science and Technology, 2015, 26, 045901.	1.4	0
9	Controller synthesis for assistive robotic device using twisted-string actuation. , 2015, , .		3
10	Modeling and control of a bidirectional twisted-string actuation for an upper arm robotic device. , 2015, , .		5
11	High-Accuracy Miniature Dew Point Sensor and Instrument. IEEE Sensors Journal, 2015, 15, 1482-1488.	2.4	10
12	Ultraminiature Angular Position Sensor Based on the Beta-Voltaic Principle. IEEE Transactions on Instrumentation and Measurement, 2015, 64, 533-540.	2.4	4
13	Controller Synthesis of Tracking and Synchronization for Multiaxis Motion System. IEEE Transactions on Control Systems Technology, 2014, 22, 378-386.	3.2	68
14	Advanced Optical Microphone. IEEE Sensors Journal, 2014, 14, 7-14.	2.4	5
15	Alpha-Particle-Based Icing Detector for Aircraft. IEEE Transactions on Instrumentation and Measurement, 2014, 63, 185-191.	2.4	1
16	Sliding Mode Voltage Control of the DC to DC Buck Converters. Lecture Notes in Electrical Engineering, 2014, , 205-213.	0.3	0
17	Operating Energy Harvesting Array at Higher Vibration Modes. Lecture Notes in Electrical Engineering, 2014, , 1201-1207.	0.3	0
18	Tunable Ultracapacitor. IEEE Transactions on Industrial Electronics, 2013, 60, 5613-5619.	5.2	5

#	ARTICLE	IF	CITATIONS
19	Design and fabrication of an assistive device for arm rehabilitation using twisted string system. , 2013, , .		13
20	Moving trajectories and controller synthesis for an assistive device for arm rehabilitation. , 2013, , .		7
21	Miniature Carbon Monoxide Detector Based on Nanotechnology. IEEE Transactions on Instrumentation and Measurement, 2013, 62, 240-245.	2.4	13
22	Real-Time Measurement of Eccentric Motion With Low-Cost Capacitive Sensor. IEEE/ASME Transactions on Mechatronics, 2013, 18, 990-997.	3.7	8
23	Operation of energy harvesting devices in different vibration modes. , 2013, , .		0
24	Circuit Development of Piezoelectric Energy Harvesting Device for Recharging Solid-State Batteries. , 2012, , .		2
25	Miniature Moisture Sensor Based on Ultracapacitor Technology. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2012, 2, 1151-1157.	1.4	9
26	MEMS Acceleration Sensor With Large Dynamic Range and High Sensitivity. Journal of Microelectromechanical Systems, 2012, 21, 1043-1048.	1.7	1
27	Novel electric micromotor for consumer electronics applications. IEEE Transactions on Consumer Electronics, 2012, 58, 1103-1109.	3.0	2
28	Frequency-Selective Seismic Sensor. IEEE Transactions on Instrumentation and Measurement, 2012, 61, 823-829.	2.4	9
29	Ultrahigh-Sensitivity Pressure and Vibration Sensor. IEEE Sensors Journal, 2011, 11, 3288-3294.	2.4	17
30	Novel Electret Microphone. IEEE Sensors Journal, 2011, 11, 988-994.	2.4	10
31	High-Sensitivity Inductive Pressure Sensor. IEEE Transactions on Instrumentation and Measurement, 2011, 60, 2960-2966.	2.4	42
32	Experiment for teaching a fundamental principle in electrostatics. Journal of Electrostatics, 2010, 68, 249-253.	1.0	2
33	A simplified approach of wavelength estimation and its application. , 2010, , .		0
34	Novel Capacitive Pressure Sensor. Journal of Microelectromechanical Systems, 2010, 19, 443-450.	1.7	30
35	Adaptive control of synchronization for multi-axis motion system. , 2010, , .		3
36	Capacitive Pressure Sensor With Very Large Dynamic Range. IEEE Transactions on Components and Packaging Technologies, 2010, 33, 79-83.	1.4	57

#	ARTICLE	IF	CITATIONS
37	Real-time measurement of eccentric motion with capacitive sensor for hydraulic pumps. , 2009, , .		0
38	Fractal Compression and Adaptive Sampling With HV Partitioning: Accelerating the Scanning Process in Scanning Probe Microscopy. , 2009, , .		2
39	Electrophoretic coating of carbon nanotubes for high energy-density capacitor applications. Journal of Applied Physics, 2009, 105, 104314.	1.1	9
40	Modified Sliding Mode Speed Control of Brushless DC Motor Using Quantized Current Regulator. , 2009, , .		4
41	Synchronization Controller Synthesis of Multi-Axis Motion System. , 2009, , .		16
42	Discrete-time controller synthesis of a piezoelectric cantilever beam with the consideration of finite precision. , 2009, , .		0
43	Adaptive position control of integrated linear actuator and flexure mechanism. , 2009, , .		2
44	Fractal compression and adaptive sampling: reducing the image acquisition time in scanning probe microscopy. Scanning, 2008, 30, 463-473.	0.7	8
45	Robust Adaptive Control for Robot Manipulators with Friction. , 2008, , .		4
46	Coupling between Sample Rate and Required Wordlength for Finite Precision Controller Implementation with Delta Transform. Proceedings of the American Control Conference, 2007, , .	0.0	9
47	Wordlength estimation of digital controller synthesis for inkjet printer mechanism. , 2007, , .		0
48	Fuzzy Controller Design for Positioning and Synchronization of Electrohydraulic System. , 2007, , .		7
49	<title>Adaptive sampling for atomic force microscopy</title>. , 2006, , .		0
50	Modeling and control of piezoelectric cantilever beam micro-mirror and micro-laser arrays to reduce image banding in electrophotographic processes. Journal of Micromechanics and Microengineering, 2001, 11, 487-498.	1.5	38
51	An application of distributed air conditioning control network. , 1998, , .		5
52	Finite precision controller implementation - limitation on sample rate. , 0, , .		7