

Wei Tech Ang

List of Publications by Year in descending order

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68
papers

1,840
citations

304602

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68
docs citations

68
times ranked

1308
citing authors

#	ARTICLE	IF	CITATIONS
1	Rehabilitation Robotic System with Forelimb-Hindlimb Phase synchronization in Rats with Spinal Cord Injury. , 2021, , .		0
2	Phase Learning to Extract Phase from Forelimb(s) and Hindlimb(s) Movement in Real Time. , 2021, , .		1
3	A Digitized Representation of the Modified Prandtlâ€™Ishlinskii Hysteresis Model for Modeling and Compensating Piezoelectric Actuator Hysteresis. Micromachines, 2021, 12, 942.	1.4	10
4	Robotic Micromanipulation of Biological Cells with Friction Force-Based Rotation Control. , 2020, , .		0
5	Automatic Inference of Ratâ€™s Hindlimb Trajectory to Synchronize with Forelimb Gait Through Phase. , 2019, 2019, 4615-4618.		2
6	Regenerative rehabilitation: exploring the synergistic effects of rehabilitation and implantation of a bio-functional scaffold in enhancing nerve regeneration. Biomaterials Science, 2019, 7, 5150-5160.	2.6	11
7	A Developmental Rehabilitation Robotic System for a Rat With Complete Thoracic Spinal Cord Injury in Quadruped Posture. IEEE Robotics and Automation Letters, 2018, 3, 2109-2115.	3.3	8
8	Unsupervised Phase Learning and Extraction from Repetitive Movements. , 2018, 2018, 227-230.		5
9	Multi-Step Prediction of Physiological Tremor With Random Quaternion Neurons for Surgical Robotics Applications. IEEE Access, 2018, 6, 42216-42226.	2.6	6
10	Multidimensional Modeling of Physiological Tremor for Active Compensation in Handheld Surgical Robotics. IEEE Transactions on Industrial Electronics, 2017, 64, 1645-1655.	5.2	22
11	Autofocusing and Polar Body Detection in Automated Cell Manipulation. IEEE Transactions on Biomedical Engineering, 2017, 64, 1099-1105.	2.5	48
12	Mobile EEG-based situation awareness recognition for air traffic controllers. , 2017, , .		17
13	Automatic Identification of Systolic Time Intervals in Seismocardiogram. Scientific Reports, 2016, 6, 37524.	1.6	54
14	Three-Dimensional Cell Rotation With Fluidic Flow-Controlled Cell Manipulating Device. IEEE/ASME Transactions on Mechatronics, 2016, 21, 1995-2003.	3.7	38
15	Ensemble framework based real-time respiratory motion prediction for adaptive radiotherapy applications. Medical Engineering and Physics, 2016, 38, 749-757.	0.8	9
16	Three-dimensional modeling of physiological tremor for hand-held surgical robotic instruments. , 2016, 2016, 3708-3711.		0
17	A fully automated robotic system for three-dimensional cell rotation. , 2016, , .		6
18	A Quaternion Weighted Fourier Linear Combiner for Modeling Physiological Tremor. IEEE Transactions on Biomedical Engineering, 2016, 63, 2336-2346.	2.5	38

#	ARTICLE	IF	CITATIONS
19	Dynamics of the mobile robotic balance trainer: Study of the pentagonal closed chain properties in relation with balance tasks. , 2015, , .		1
20	Visual Servoed Three-Dimensional Cell Rotation System. IEEE Transactions on Biomedical Engineering, 2015, 62, 2498-2507.	2.5	38
21	Multistep Prediction of Physiological Tremor Based on Machine Learning for Robotics Assisted Microsurgery. IEEE Transactions on Cybernetics, 2015, 45, 328-339.	6.2	56
22	Application of lateral oscillating piezo-driven micropipette in embryo biopsy for pre-implantation genetic diagnosis. , 2014, , .		1
23	Physiological Tremor Estimation With Autoregressive (AR) Model and Kalman Filter for Robotics Applications. IEEE Sensors Journal, 2013, 13, 4977-4985.	2.4	32
24	Musculoskeletal Models of Tremor. , 2013, , 79-107.		2
25	Multistep Prediction of Physiological Tremor for Surgical Robotics Applications. IEEE Transactions on Biomedical Engineering, 2013, 60, 3074-3082.	2.5	42
26	Beneficial micropipette oscillation in vision-guided piezo-assisted ICSI. , 2013, , .		3
27	An Enhanced Intelligent Handheld Instrument with Visual Servo Control for 2-DOF Hand Motion Error Compensation. International Journal of Advanced Robotic Systems, 2013, 10, 355.	1.3	4
28	Fusion of Inertial Measurements and Vision Feedback for Microsurgery. Advances in Intelligent Systems and Computing, 2013, , 27-35.	0.5	1
29	Fusion of Inertial Measurements and Vision Feedback for Microsurgery. Studies in Computational Intelligence, 2013, , 341-349.	0.7	0
30	A compact 3-DOF compliant serial mechanism for trajectory tracking with flexures made by rapid prototyping. , 2012, , .		6
31	Transfer Function Compensation in Gyroscope-Free Inertial Measurement Units for Accurate Angular Motion Sensing. IEEE Sensors Journal, 2012, 12, 1207-1208.	2.4	3
32	Development of a Compact 1-D Micromanipulator with Flexure Manufactured Using Rapid Prototyping. International Journal of Intelligent Mechatronics and Robotics, 2012, 2, 47-57.	0.4	4
33	A micro motion sensing system for micromanipulation tasks. Sensors and Actuators A: Physical, 2012, 173, 254-266.	2.0	8
34	Automatic Hysteresis Modeling of Piezoelectric Micromanipulator in Vision-Guided Micromanipulation Systems. IEEE/ASME Transactions on Mechatronics, 2012, 17, 547-553.	3.7	47
35	A Low-Cost Flexure-Based Handheld Mechanism for Micromanipulation. IEEE/ASME Transactions on Mechatronics, 2011, 16, 773-778.	3.7	33
36	EEG controlled neuromuscular electrical stimulation of the upper limb for stroke patients. Frontiers of Mechanical Engineering in China, 2011, 6, 71.	0.4	4

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37	Neural oscillator based control for pathological tremor suppression via functional electrical stimulation. Control Engineering Practice, 2011, 19, 74-88.	3.2	70
38	Placement of accelerometers for high sensing resolution in micromanipulation. Sensors and Actuators A: Physical, 2011, 167, 304-316.	2.0	19
39	Real-time modeling and control of the circular cell membranes strain. , 2011, , .		0
40	SENSING OF PATHOLOGICAL TREMOR USING SURFACE ELECTROMYOGRAPHY AND ACCELEROMETER FOR REAL-TIME ATTENUATION. Journal of Mechanics in Medicine and Biology, 2011, 11, 1347-1371.	0.3	13
41	Drift-Free Position Estimation of Periodic or Quasi-Periodic Motion Using Inertial Sensors. Sensors, 2011, 11, 5931-5951.	2.1	47
42	Estimation of Physiological Tremor from Accelerometers for Real-Time Applications. Sensors, 2011, 11, 3020-3036.	2.1	88
43	Real-time stressing and force sensing on biological cells. , 2010, , .		1
44	Autofocusing algorithm comparison in bright field microscopy for automatic vision aided cell micromanipulation. , 2010, , .		4
45	Vision based cell strain modeling and control system. , 2010, , .		4
46	Micromanipulation accuracy in pointing and tracing investigated with a contact-free measurement system. , 2009, 2009, 3960-3.		14
47	Exploring Peripheral Mechanism of Tremor on Neuromusculoskeletal Model: A General Simulation Study. IEEE Transactions on Biomedical Engineering, 2009, 56, 2359-2369.	2.5	37
48	Tracking control of hysteretic piezoelectric actuator using adaptive rate-dependent controller. Sensors and Actuators A: Physical, 2009, 150, 116-123.	2.0	61
49	FES artifact suppression for real-time tremor compensation. , 2009, , .		4
50	Design and development of a low-cost flexure-based hand-held mechanism for micromanipulation. , 2009, , .		3
51	Compact Sensing Design of a Handheld Active Tremor Compensation Instrument. IEEE Sensors Journal, 2009, 9, 1864-1871.	2.4	35
52	Feedforward Controller of Ill-Conditioned Hysteresis Using Singularity-Free Prandtlâ€™Ishlinskii Model. IEEE/ASME Transactions on Mechatronics, 2009, 14, 598-605.	3.7	80
53	Estimating Displacement of Periodic Motion With Inertial Sensors. IEEE Sensors Journal, 2008, 8, 1385-1388.	2.4	57
54	Plant Cell Injection Based on Autofocusing Algorithm. , 2008, , .		7

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55	An Extended Kalman filtering of accelerometer and surface electromyography data for attenuation of pathological tremor. , 2008, , .		9
56	Calibration of piezoelectric actuator-based vision guided cell microinjection system. , 2008, , .		3
57	Reciprocal EMG Controlled FES for Pathological Tremor Suppression of Forearm. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2007, 2007, 4810-3.	0.5	24
58	Feedforward Controller With Inverse Rate-Dependent Model for Piezoelectric Actuators in Trajectory-Tracking Applications. IEEE/ASME Transactions on Mechatronics, 2007, 12, 134-142.	3.7	285
59	Nonlinear Regression Model of aLow-\$g\$ MEMS Accelerometer. IEEE Sensors Journal, 2007, 7, 81-88.	2.4	80
60	Tremor Suppression of Elbow Joint via Functional Electrical Stimulation: A Simulation Study. , 2006, , .		26
61	Toward active tremor canceling in handheld microsurgical instruments. IEEE Transactions on Automation Science and Engineering, 2003, 19, 793-800.	2.4	197
62	An Active Hand-Held Instrument for Enhanced Microsurgical Accuracy. Lecture Notes in Computer Science, 2000, , 878-886.	1.0	23
63	Neural network methods for error canceling in human-machine manipulation. , 0, , .		4
64	Design and implementation of active error canceling in hand-held microsurgical instrument. , 0, , .		13
65	An intelligent hand-held microsurgical instrument for improved accuracy. , 0, , .		4
66	Design of all-accelerometer inertial measurement unit for tremor sensing in hand-held microsurgical instrument. , 0, , .		20
67	Modeling rate-dependent hysteresis in piezoelectric actuators. , 0, , .		31
68	Kalman filtering for real-time orientation tracking of handheld microsurgical instrument. , 0, , .		17