

Abbas Erfanian

List of Publications by Year in descending order

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Version: 2024-02-01

58
papers

1,302
citations

516215

16
h-index

377514

34
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58
all docs

58
docs citations

58
times ranked

1317
citing authors

#	ARTICLE	IF	CITATIONS
1	Adaptive fuzzy terminal sliding mode control for a class of MIMO uncertain nonlinear systems. <i>Fuzzy Sets and Systems</i> , 2011, 179, 34-49.	1.6	312
2	An online EEG-based brain-computer interface for controlling hand grasp using an adaptive probabilistic neural network. <i>Medical Engineering and Physics</i> , 2010, 32, 730-739.	0.8	97
3	A fully automatic ocular artifact suppression from EEG data using higher order statistics: Improved performance by wavelet analysis. <i>Medical Engineering and Physics</i> , 2010, 32, 720-729.	0.8	89
4	A Neuro-Sliding-Mode Control With Adaptive Modeling of Uncertainty for Control of Movement in Paralyzed Limbs Using Functional Electrical Stimulation. <i>IEEE Transactions on Biomedical Engineering</i> , 2009, 56, 1771-1780.	2.5	81
5	Decentralized adaptive robust control based on sliding mode and nonlinear compensator for the control of ankle movement using functional electrical stimulation of agonist-antagonist muscles. <i>Journal of Neural Engineering</i> , 2009, 6, 046007.	1.8	58
6	A Decentralized Modular Control Framework for Robust Control of FES-Activated Walker-Assisted Paraplegic Walking Using Terminal Sliding Mode and Fuzzy Logic Control. <i>IEEE Transactions on Biomedical Engineering</i> , 2012, 59, 2818-2827.	2.5	53
7	Real-time ocular artifact suppression using recurrent neural network for electro-encephalogram based brain-computer interface. <i>Medical and Biological Engineering and Computing</i> , 2005, 43, 296-305.	1.6	51
8	Fully Automatic Control of Paraplegic FES Pedaling Using Higher-Order Sliding Mode and Fuzzy Logic Control. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2014, 22, 533-542.	2.7	48
9	Electro-encephalogram based brain-computer interface: improved performance by mental practice and concentration skills. <i>Medical and Biological Engineering and Computing</i> , 2006, 44, 959-969.	1.6	39
10	A framework for seizure detection using effective connectivity, graph theory, and multi-level modular network. <i>Biomedical Signal Processing and Control</i> , 2020, 59, 101878.	3.5	33
11	A decentralized adaptive fuzzy robust strategy for control of upright standing posture in paraplegia using functional electrical stimulation. <i>Medical Engineering and Physics</i> , 2012, 34, 28-37.	0.8	32
12	Improving the performance of brain-computer interface through meditation practicing. , 2008, 2008, 662-5.		31
13	Tree-Structured Feature Extraction Using Mutual Information. <i>IEEE Transactions on Neural Networks and Learning Systems</i> , 2012, 23, 127-137.	7.2	31
14	Using evoked EMG as a synthetic force sensor of isometric electrically stimulated muscle. <i>IEEE Transactions on Biomedical Engineering</i> , 1998, 45, 188-202.	2.5	30
15	Adaptive Neuro-Fuzzy Sliding Mode Control of Multi-Joint Movement Using Intraspinal Microstimulation. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2012, 20, 499-509.	2.7	21
16	A Finite-time Adaptive Fuzzy Terminal Sliding Mode Control for Uncertain Nonlinear Systems. <i>International Journal of Control, Automation and Systems</i> , 2018, 16, 1938-1950.	1.6	21
17	Automatic Seizure Detection Based on Nonlinear Dynamical Analysis of EEG Signals and Mutual Information. <i>Basic and Clinical Neuroscience</i> , 2018, 9, 227-240.	0.3	18
18	ICA-based classification scheme for EEG-based brain-computer interface: the role of mental practice and concentration skills. , 2004, 2006, 235-8.		16

#	ARTICLE	IF	CITATIONS
19	Improving the performance of P300-based brain-computer interface through subspace-based filtering. <i>Neurocomputing</i> , 2013, 121, 434-441.	3.5	16
20	Decoding hind limb kinematics from neuronal activity of the dorsal horn neurons using multiple level learning algorithm. <i>Scientific Reports</i> , 2018, 8, 577.	1.6	15
21	Higher-order sliding mode control of leg power in paraplegic FES-Cycling. , 2010, 2010, 5891-4.		12
22	Comments on "Sliding Mode Closed-Loop Control of FES: Controlling the Shank Movement. <i>IEEE Transactions on Biomedical Engineering</i> , 2008, 55, 2842-2843.	2.5	11
23	A piecewise probabilistic regression model to decode hand movement trajectories from epidural and subdural ECoG signals. <i>Journal of Neural Engineering</i> , 2018, 15, 036020.	1.8	11
24	The effects of mental practice and concentration skills on EEG brain dynamics during motor imagery using independent component analysis. , 2004, 2006, 239-42.		10
25	An adaptive fuzzy sliding-mode controller design for walking control with functional electrical stimulation: A computer simulation study. <i>International Journal of Control, Automation and Systems</i> , 2011, 9, 1124-1135.	1.6	10
26	Classification of brain signals associated with imagination of hand grasping, opening and reaching by means of wavelet-based common spatial pattern and mutual information. , 2013, 2013, 2224-7.		10
27	A decentralized adaptive robust method for chaos control. <i>Chaos</i> , 2009, 19, 033111.	1.0	9
28	Adaptive terminal sliding mode control of ankle movement using functional electrical stimulation of agonist-antagonist muscles. , 2010, 2010, 5448-51.		9
29	A fully digital BPSK demodulator for biomedical application. <i>Microelectronics Journal</i> , 2018, 81, 76-83.	1.1	9
30	An on-line BCI for control of hand grasp sequence and holding using adaptive probabilistic neural network. , 2008, 2008, 1009-12.		8
31	A mutual information based channel selection scheme for P300-based brain computer interface. , 2011, , .		8
32	A Systematic Methodology for Optimal Design of Wireless Power Transfer System Using Genetic Algorithm. <i>Energies</i> , 2020, 13, 383.	1.6	8
33	Real-Time Ocular Artifacts Suppression from EEG Signals Using an Unsupervised Adaptive Blind Source Separation. , 2006, 2006, 5269-72.		6
34	Dynamic optimization of walker-assisted FES-activated paraplegic walking: Simulation and experimental studies. <i>Medical Engineering and Physics</i> , 2013, 35, 1659-1668.	0.8	6
35	A state-based probabilistic method for decoding hand position during movement from ECoG signals in non-human primate. <i>Journal of Neural Engineering</i> , 2020, 17, 026042.	1.8	6
36	Neuro-Sliding Mode Control with Modular Models for Control of Knee-joint Angle Using Quadriceps Electrical Stimulation. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society</i> , 2007, 2007, 2424-7.	0.5	5

#	ARTICLE	IF	CITATIONS
37	An on-line BCI system for hand movement control using real-time recurrent probabilistic neural network. , 2009, , .		5
38	Fuzzy logic control of ankle movement using multi-electrode intraspinal microstimulation. , 2013, 2013, 5642-5.		5
39	A VCO-free low-power fully digital BPSK demodulator for implantable biomedical microsystems. , 2017, , .		5
40	On the Design of Low Power CMOS Schmitt Trigger for Biomedical Application. , 2019, , .		5
41	A probabilistic recurrent neural network for decoding hind limb kinematics from multi-segment recordings of the dorsal horn neurons. Journal of Neural Engineering, 2019, 16, 036023.	1.8	5
42	Estimation of Bladder Pressure and Volume from the Neural Activity of Lumbosacral Dorsal Horn Using a Long-Short-Term-Memory-based Deep Neural Network. Scientific Reports, 2019, 9, 18128.	1.6	5
43	A Fully Automatic Method for Ocular Artifact Suppression from EEG Data Using Wavelet Transform and Independent Component Analysis. , 2006, 2006, 5265-8.		4
44	A modular robust control framework for control of movement elicited by multi-electrode intraspinal microstimulation. Journal of Neural Engineering, 2016, 13, 046024.	1.8	4
45	The Effects of Stimulation Strategy on Joint Movement Elicited by Intraspinal Microstimulation. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2016, 24, 794-805.	2.7	4
46	Block-based robust control of stepping using intraspinal microstimulation. Journal of Neural Engineering, 2018, 15, 046026.	1.8	4
47	Decoding hindlimb kinematics from descending and ascending neural signals during cat locomotion. Journal of Neural Engineering, 2021, 18, 026015.	1.8	4
48	Restoring Motor Functions in Paralyzed Limbs through Intraspinal Multielectrode Microstimulation Using Fuzzy Logic Control and Lag Compensator. Basic and Clinical Neuroscience, 2013, 4, 232-43.	0.3	4
49	Decoding Bilateral Hindlimb Kinematics From Cat Spinal Signals Using Three-Dimensional Convolutional Neural Network. Frontiers in Neuroscience, 2022, 16, 801818.	1.4	4
50	A Tree-Structure Mutual Information-Based Feature Extraction and Its Application to EEG-Based Brain-Computer Interfacing. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2007, 2007, 5075-8.	0.5	3
51	A general framework for automatic closed-loop control of bladder voiding induced by intraspinal microstimulation in rats. Scientific Reports, 2021, 11, 3424.	1.6	3
52	Automatic detection of PTZ-induced seizures based on functional brain connectivity network in rats. , 2017, , .		2
53	A DPSK demodulator for biomedical application. International Journal of Circuit Theory and Applications, 2019, 47, 2032-2041.	1.3	2
54	Automatic tuning of the Class E power amplifier applied in inductive links during coil separation variations. AEU - International Journal of Electronics and Communications, 2020, 124, 153337.	1.7	2

#	ARTICLE	IF	CITATIONS
55	Mutual information-based Fisher discriminant analysis for feature extraction and recognition with applications to medical diagnosis. , 2010, 2010, 5811-4.		1
56	Control of rhythmic locomotor-like activity through intraspinal microstimulation with high frequency resolution. , 2011, , .		1
57	Stacked recurrent neural network for decoding of reaching movement using local field potentials and single-unit spikes. , 2017, , .		0
58	A Distributed Automatic Control Framework for Simultaneous Control of Torque and Cadence in Functional Electrical Stimulation Cycling. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2022, 30, 1908-1919.	2.7	0