Farzad Towhidkhah

List of Publications by Year
in descending order

131	1,234	516561 16	454834 30
papers	citations	h-index	g-index

134	134	134	1355
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Fully automatic segmentation of multiple sclerosis lesions in brain MR FLAIR images using adaptive mixtures method and markov random field model. Computers in Biology and Medicine, 2008, 38, 379-390.	3.9	143
2	Learning to Control Arm Stiffness Under Static Conditions. Journal of Neurophysiology, 2004, 92, 3344-3350.	0.9	81
3	Preparing to Reach: Selecting an Adaptive Long-Latency Feedback Controller. Journal of Neuroscience, 2012, 32, 9537-9545.	1.7	72
4	A chaotic model of sustaining attention problem in attention deficit disorder. Communications in Nonlinear Science and Numerical Simulation, 2015, 20, 174-185.	1.7	60
5	Feature extraction based DCT on dynamic signature verification. Scientia Iranica, 2012, 19, 1810-1819.	0.3	54
6	Computational human head models of tDCS: Influence of brain atrophy on current density distribution. Brain Stimulation, 2018, 11, 104-107.	0.7	53
7	Control of Hand Impedance Under Static Conditions and During Reaching Movement. Journal of Neurophysiology, 2007, 97, 2676-2685.	0.9	47
8	A novel method for automatic determination of different stages of multiple sclerosis lesions in brain MR FLAIR images. Computerized Medical Imaging and Graphics, 2008, 32, 124-133.	3.5	39
9	Cerebellum as a forward but not inverse model in visuomotor adaptation task: a tDCS-based and modeling study. Experimental Brain Research, 2016, 234, 997-1012.	0.7	37
10	Constrained incremental predictive controller design for a flexible joint robot. ISA Transactions, 2009, 48, 321-326.	3.1	30
11	The simple chaotic model of passive dynamic walking. Nonlinear Dynamics, 2018, 93, 1183-1199.	2.7	30
12	Do the chaotic features of gait change in Parkinson's disease?. Journal of Theoretical Biology, 2012, 307, 160-167.	0.8	22
13	Modeling the gait of normal and Parkinsonian persons for improving the diagnosis. Neuroscience Letters, 2012, 509, 72-75.	1.0	21
14	Path planning in the hippocampo-prefrontal cortex pathway: An adaptive model based receding horizon planner. Medical Hypotheses, 2007, 68, 1411-1415.	0.8	20
15	Huntington's disease: Modeling the gait disorder and proposing novel treatments. Journal of Theoretical Biology, 2008, 254, 361-367.	0.8	18
16	Are fast/slow process in motor adaptation and forward/inverse internal model two sides of the same coin?. Medical Hypotheses, 2013, 81, 592-600.	0.8	18
17	A novel shared structure for dual user systems with unknown time-delay utilizing adaptive impedance control. , 2011, , .		16
18	GAIT SPECTRAL ANALYSIS: AN EASY FAST QUANTITATIVE METHOD FOR DIAGNOSING PARKINSON'S DISEASE. Journal of Mechanics in Medicine and Biology, 2012, 12, 1250041.	0.3	15

#	ARTICLE	IF	CITATIONS
19	SIMILARITY EVALUATION OF ONLINE SIGNATURES BASED ON MODIFIED DYNAMIC TIME WARPING. Applied Artificial Intelligence, 2013, 27, 599-617.	2.0	15
20	One-dimensional map-based neuron model: A logistic modification. Chaos, Solitons and Fractals, 2014, 65, 20-29.	2.5	15
21	Authentication based on pole-zero models of signature velocity. Journal of Medical Signals and Sensors, 2013, 3, 195.	0.5	15
22	Are rigidity and tremor two sides of the same coin in Parkinson's disease?. Computers in Biology and Medicine, 2008, 38, 1133-1139.	3.9	13
23	Computer-based working memory training in children with mild intellectual disability. Early Child Development and Care, 2015, 185, 66-74.	0.7	13
24	Designing a Decision Support System for Distinguishing ADHD from Similar Children Behavioral Disorders. Journal of Medical Systems, 2012, 36, 1335-1343.	2.2	12
25	A sliding-mode controller for dual-user teleoperation with unknown constant time delays. Robotica, 2013, 31, 589-598.	1.3	12
26	Is Attention Deficit Hyperactivity Disorder a Kind of Intermittent Chaos?. Journal of Neuropsychiatry and Clinical Neurosciences, 2013, 25, E02-E02.	0.9	12
27	A robust control architecture for dual user teleoperation system with time-delay. , 2010, , .		11
28	A cybernetic view on wind-up. Medical Hypotheses, 2006, 67, 304-306.	0.8	10
29	Audioâ€“visual speaker identification using dynamic facial movements and utterance phonetic content. Applied Soft Computing Journal, 2011, 11, 2083-2093.	4.1	10
30	Videoâ€based facial expression recognition by removing the style variations. IET Image Processing, 2015, 9, 596-603.	1.4	10
31	Authentication based on signature verification using position, velocity, acceleration and Jerk signals. , 2012, , .		9
32	SEPARATING PARKINSONIAN PATIENTS FROM NORMAL PERSONS USING HANDWRITING FEATURES. Journal of Mechanics in Medicine and Biology, 2013, 13, 1350030.	0.3	9
33	A mathematical and biological plausible model of decision-execution regulation in â€œGo/No-Goâ€•tasks: Focusing on the fronto-striatal-thalamic pathway. Computers in Biology and Medicine, 2017, 86, 113-128.	3.9	9
34	A modified Hodgkinâ€“Huxley model to show the effect of motor cortex stimulation on the trigeminal neuralgia network. Journal of Mathematical Neuroscience, 2019, 9, 4.	2.4	9
35	Gene Regulatory Network Modeling using Bayesian Networks and Cross Correlation. , 2008, , .		8
36	A robust feedback linearization approach for tracking control of flexible-link manipulators using an EKF disturbance estimator. , 2010, , .		8

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37	Automatic Paint Defect Detection and Classification of Car Body. , 2011, , .		8
38	Task-specific stability in muscle activation space during unintentional movements. Experimental Brain Research, 2014, 232, 3645-3658.	0.7	8
39	Subject adaptation using selective style transfer mapping for detection of facial action units. Expert Systems With Applications, 2016, 56, 282-290.	4.4	8
40	Transfer and durability of acquired patterns of human arm stiffness. Experimental Brain Research, 2006, 170, 227-237.	0.7	7
41	Generalized Predictive Control of Depth of Anesthesia by Using a Pharmocokinetic-Pharmacodynamic Model of the Patient. , 2008, , .		7
42	Car Body Paint Defect Inspection Using Rotation Invariant Measure of the Local Variance and One-Against-All Support Vector Machine. , 2011, , .		7
43	A new set of desired objectives for dual-user systems in the presence of unknown communication delay. , 2011, , .		7
44	Pathophysiology of freezing of gait and some possible treatments for it. Medical Hypotheses, 2012, 78, 258-261.	0.8	7
45	Modeling error detection in human brain: A preliminary unification of reinforcement learning and conflict monitoring theories. Neurocomputing, 2013, 103, 1-13.	3.5	7
46	Modeling studies for designing transcranial direct current stimulation protocol in Alzheimer's disease. Frontiers in Computational Neuroscience, 2014, 8, 72.	1.2	7
47	Local Features Analysis of On-Line Signature Using Modified Distance of DTW. International Journal of Computational Methods, 2015, 12, 1550016.	0.8	7
48	A mathematical model to mimic the shape of event related desynchronization/synchronization. Journal of Theoretical Biology, 2018, 453, 117-124.	0.8	7
49	Brain activity during time to contact estimation: an EEG study. Cognitive Neurodynamics, 2020, 14, 155-168.	2.3	7
50	A New Proposal on How Motor Memory Is Consolidated. Journal of Neuropsychiatry and Clinical Neurosciences, 2013, 25, E03-E04.	0.9	6
51	Diverse videos synthesis using manifoldâ€based parametric motion model for facial understanding. IET Image Processing, 2016, 10, 253-260.	1.4	6
52	Orthonormal function parametrisation of model-predictive control for linear time-varying systems. International Journal of Systems Science, 2018, 49, 868-883.	3.7	6
53	A mathematical model of the interaction between bottom-up and top-down attention controllers in response to a target and a distractor in human beings. Cognitive Systems Research, 2019, 58, 234-252.	1.9	6
54	Adjustable primitive pattern generator: A novel cerebellar model for reaching movements. Neuroscience Letters, 2006, 406, 232-234.	1.0	5

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55	Computational Modeling of AÃŸ Fiber Wind-up. , 2006, 2006, 4975-8.		5
56	Control challenges in non-minimum phase tele-robotics systems. , 2011, , .		5
57	Extracting and study of synchronous muscle synergies during fast arm reaching movements. , 2013, , .		5
58	A two level real-time path planning method inspired by cognitive map and predictive optimization in human brain. Applied Soft Computing Journal, 2014, 21, 352-364.	4.1	5
59	Reinforcement-conflict based control: An integrative model of error detection in anterior cingulate cortex. Neurocomputing, 2014, 123, 140-149.	3.5	5
60	Incorporating prior knowledge from the new person into recognition of facial expression. Signal, Image and Video Processing, 2016, 10, 235-242.	1.7	5
61	Assessing changes in brain electrical activity and functional connectivity while overtaking a vehicle. Journal of Cognitive Psychology, 2020, 32, 668-682.	0.4	5
62	Performance enhancement for audio-visual speaker identification using dynamic facial muscle model. Medical and Biological Engineering and Computing, 2006, 44, 919-930.	1.6	4
63	Modeling the primary auditory cortex using dynamic synapses: Can synaptic plasticity explain the temporal tuning?. Journal of Theoretical Biology, 2007, 248, 1-9.	0.8	4
64	Controlling the Depth of Anesthesia by Using Extended DMC. , 2008, , .		4
65	Controlling the depth of anesthesia using model predictive controller and Extended Kalman Filter. , 2011, , .		4
66	Automatic classification of hyperactive children: Comparing multiple artificial intelligence approaches. Neuroscience Letters, 2011, 498, 190-193.	1.0	4
67	Analysis and Simulation of Fiber Dispersion in Water Using a Theoretical Analogous Model. Journal of Dispersion Science and Technology, 2011, 32, 352-358.	1.3	4
68	The effect of proprioceptive training on multisensory perception under visual uncertainty. Journal of Integrative Neuroscience, 2012, 11, 401-415.	0.8	4
69	A hypothesis on the role of perturbation size on the human sensorimotor adaptation. Frontiers in Computational Neuroscience, 2014, 8, 28.	1.2	4
70	The role of internal forward models and proprioception in hand position estimation. Journal of Integrative Neuroscience, 2015, 14, 403-418.	0.8	4
71	Human Brain Function in Path Planning: a Task Study. Cognitive Computation, 2017, 9, 136-149.	3.6	4
72	Tip position tracking of flexible-link manipulators based on online robust trajectory modification. , 2010, , .		3

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73	Increasing Robustness of the Anesthesia Process from Difference Patient's Delay Using a State-Space Model Predictive Controller. Procedia Engineering, 2011, 15, 928-932.	1.2	3
74	Model predictive control of linear time varying systems using Laguerre functions. , 2016, , .		3
75	Left and right reaction time differences to the sound intensity in normal and AD/HD children. International Journal of Pediatric Otorhinolaryngology, 2017, 97, 240-244.	0.4	3
76	Laguerre based model predictive control for trajectory tracking of nonholonomic mobile robots. , 2018, , .		3
77	A one-boundary drift-diffusion model for time to collision estimation in a simple driving task. Journal of Cognitive Psychology, 2020, 32, 67-81.	0.4	3
78	Assessment methods. , 2021, , 203-250.		3
79	Predicting Atrial Fibrillation termination using ECG features, a comparison. , 2008, , .		2
80	Dynamic signature verification based on DCT of local features. , 2011, , .		2
81	Study of VTLN method to recognize common speech disorders in speech therapy of Persian children. , 2012, , .		2
82	A biologically inspired neural model for visual and proprioceptive integration including sensory training. Journal of Integrative Neuroscience, 2013, 12, 491-511.	0.8	2
83	Comparison of visual and proprioceptive training on multisensory perception using a new designed setup. , 2013, , .		2
84	Managing Epileptic Seizures by Controlling the Brain Driver Nodes: A Complex Network View. Frontiers in Bioengineering and Biotechnology, 2013, 1, 21.	2.0	2
85	The hypothetical cost-conflict monitor: is it a possible trigger for conflict-driven control mechanisms in the human brain?. Frontiers in Computational Neuroscience, 2014, 8, 77.	1.2	2
86	Efficacy of fractal electrodes in transcranial direct current stimulation: A computational modeling study. , 2015, , .		2
87	The role of time in conflict-triggered control: Extending the theory of response-conflict monitoring. Neuroscience Letters, 2016, 618, 110-114.	1.0	2
88	An electrophysiological model of working memory performance. Cognitive Systems Research, 2017, 45, 1-16.	1.9	2
89	Drift-diffusion explains response variability and capacity for tracking objects. Scientific Reports, 2019, 9, 11224.	1.6	2
90	Computational models. , 2021, , 335-361.		2

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91	Designing a Computerized Neuro-Cognitive Program for Early Diagnosing Children at Risk for Dyslexia. Iranian Rehabilitation Journal, 2017, 15, 103-110.	0.1	2
92	From Grid Cells to Place Cells: A Radial Basis Function Network Model. , 2008, , .		1
93	Using a parameter of black box model for gait as a criterion to differentiate between parkinson disease & healthy states. , 2010, , .		1
94	A Novel Clinical Gait Test Protocol for Separating Parkinsonian Patients from Normal Persons in Early Disease Stages. Journal of Medical Imaging and Health Informatics, 2013, 3, 7-11.	0.2	1
95	Fractal and Statistical Features for the Discrimination Between Patients With Amyotrophic Lateral Sclerosis and Healthy Adults. Journal of Neuropsychiatry and Clinical Neurosciences, 2013, 25, E22-E22.	0.9	1
96	Bifurcation analysis of â€œsynchronization fluctuationâ€• a diagnostic measure of brain epileptic states. Frontiers in Computational Neuroscience, 2014, 8, 11.	1.2	1
97	Modeling the effect of explicit information in visuomotor adaptation. , 2014, , .		1
98	A noise adaptive method for needle localization in 3D ultrasound images. , 2014, , .		1
99	A Network Theory View on the Thalamo-Cortical Loop. Neurophysiology, 2014, 46, 391-397.	0.2	1
100	Exploring the effect of training on muscle synergies and kinematics of a task. , 2016, , .		1
101	Attention in memory. , 2021, , 95-107.		1
102	Adaptive-pole selection in the Laguerre parametrisation of model predictive control to achieve high performance. International Journal of Systems Science, 2021, 52, 3539-3555.	3.7	1
103	Needle Detection in 3D Ultrasound Images Using Anisotropic Diffusion and Robust Fitting. Communications in Computer and Information Science, 2014, , 111-120.	0.4	1
104	PSpice Simulation of Cardiac Impulse Propagation: studying the mechanisms of action potential propagation. , 2006, , .		0
105	Could Parkinsonâ€™s disease be diagnosed at an early stage by measuring rest tremor under stressed conditions?. Medical Hypotheses, 2007, 68, 927.	0.8	0
106	Modeling Kinematic Features of Human Handwriting using Model Predictive Control. , 2008, , .		0
107	Extracting Reliable Handwriting Kinematic Feauters by using Neural Network for Diagnosing Schizophrenia Disease. , 2008, , .		0
108	Different spatial scales in mapping from grid cells to place cells: A neural network model. , 2009, , .		0

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109	Is the Chaotic Nature of Parkinsonâ€™s Disease Prone to Simulation?. Journal of Neuropsychiatry and Clinical Neurosciences, 2009, 21, 101-102.	0.9	0
110	A predictive reinforcement learning framework for modeling human decision making behavior. , 2009, , .		0
111	Central Pattern Generator: The Main Cause of Huntingtonâ€™s Disease. Journal of Neuropsychiatry and Clinical Neurosciences, 2010, 22, 123.e34-123.e34.	0.9	0
112	A Chaotic Viewpoint on DBS Treatment of Parkinsonâ€™s Disease. Journal of Neuropsychiatry and Clinical Neurosciences, 2010, 22, 247.e12-247.e13.	0.9	0
113	Introducing a New Method for Early Diagnosis of Parkinsonâ€™s Disease. Journal of Neuropsychiatry and Clinical Neurosciences, 2012, 24, E10-E10.	0.9	0
114	Proposing a New Management for Freezing of Gait in Parkinsonâ€™s Disease. Journal of Neuropsychiatry and Clinical Neurosciences, 2012, 24, E48-E48.	0.9	0
115	Mental Practice: A Psychotherapy to Improve Action-Selection in Obsessive-Compulsive Disorder. Journal of Neuropsychiatry and Clinical Neurosciences, 2012, 24, E25-E25.	0.9	0
116	A predictive human-inspired path planning method based on the dynamic wave expansion neural network (DWENN). , 2012, , .		0
117	Supervisory model predictive impedance control for human arm movement. , 2012, , .		0
118	Estimation of time-varying human arm stiffness using electromyogram signal. , 2012, , .		0
119	A neural model of multisensory integration including proprioceptive attention under visual uncertainty. , 2012, , .		0
120	Improving motor functions in children with Down syndrome. Medical Hypotheses, 2013, 81, 746.	0.8	0
121	Using Brain Network Graph Modeling to Explore the Cause of Non-Motor Symptoms in Parkinsonâ€™s Disease. Journal of Neuropsychiatry and Clinical Neurosciences, 2013, 25, E60-E60.	0.9	0
122	A new feature extraction method and classification of early stage Parkinsonian rats with and without DBS treatment. Australasian Physical and Engineering Sciences in Medicine, 2014, 37, 655-664.	1.4	0
123	Improving stabilization of passive walking using chaos. , 2016, , .		0
124	Group-level analysis of tDCS induced electric field with different electrode montages in participants with methamphetamine-use disorders. , 2019, , .		0
125	Using the concepts of time-delayed feedback control in biofeedback systems in children with ADD: A preliminary study. Communications in Nonlinear Science and Numerical Simulation, 2020, 85, 105235.	1.7	0
126	Anatomy and physiology of attention. , 2021, , 51-94.		0

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127	An oscillatory-based model. , 2021, , 363-418.		0
128	Neurocognitive diseases and disorders. , 2021, , 167-201.		0
129	Attention in movement. , 2021, , 109-145.		0
130	Response of the Pre-oriented Goal-directed Attention to Usual and Unusual Distractors: A Preliminary Study. Basic and Clinical Neuroscience, 2017, 8, 155-165.	0.3	0
131	A Neuro-Computational Model for Discrete-Continuous Dual-Task Process. Frontiers in Computational Neuroscience, 2022, 16, 829807.	1.2	0