Farzad Towhidkhah

List of Publications by Year
in descending order

131 papers	1,234 citations	516561 16 h-index	454834 30 g-index
134 all docs	134 docs citations	134 times ranked	1355 citing authors

#	Article	IF	Citations
1	A Neuro-Computational Model for Discrete-Continuous Dual-Task Process. Frontiers in Computational Neuroscience, 2022, 16, 829807.	1.2	0
2	Attention in memory. , 2021, , 95-107.		1
3	Computational models. , 2021, , 335-361.		2
4	Anatomy and physiology of attention. , 2021, , 51-94.		0
5	An oscillatory-based model. , 2021, , 363-418.		0
6	Neurocognitive diseases and disorders. , 2021, , 167-201.		0
7	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
8	Attention in movement. , 2021, , 109-145.		0
9	Assessment methods. , 2021, , 203-250.		3
10	Brain activity during time to contact estimation: an EEG study. Cognitive Neurodynamics, 2020, 14, 155-168.	2.3	7
11	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
12	Assessing changes in brain electrical activity and functional connectivity while overtaking a vehicle. Journal of Cognitive Psychology, 2020, 32, 668-682.	0.4	5
13	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
14	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
15	Drift-diffusion explains response variability and capacity for tracking objects. Scientific Reports, 2019, 9, 11224.	1.6	2
16	A modified Hodgkin–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
17	Group-level analysis of tDCS induced electric field with different electrode montages in participants with methamphetamine-use disorders. , 2019, , .		0
18	The simple chaotic model of passive dynamic walking. Nonlinear Dynamics, 2018, 93, 1183-1199.	2.7	30

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19	Orthonormal function parametrisation of model-predictive control for linear time-varying systems. International Journal of Systems Science, 2018, 49, 868-883.	3.7	6
20	Computational human head models of tDCS: Influence of brain atrophy on current density distribution. Brain Stimulation, 2018, 11, 104-107.	0.7	53
21	Laguerre based model predictive control for trajectory tracking of nonholonomic mobile robots. , 2018, , .		3
22	A mathematical model to mimic the shape of event related desynchronization/synchronization. Journal of Theoretical Biology, 2018, 453, 117-124.	0.8	7
23	An electrophysiological model of working memory performance. Cognitive Systems Research, 2017, 45, 1-16.	1.9	2
24	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
25	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
26	Human Brain Function in Path Planning: a Task Study. Cognitive Computation, 2017, 9, 136-149.	3.6	4
27	Designing a Computerized Neuro-Cognitive Program for Early Diagnosing Children at Risk for Dyslexia. Iranian Rehabilitation Journal, 2017, 15, 103-110.	0.1	2
28	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
29	Exploring the effect of training on muscle synergies and kinematics of a task. , 2016, , .		1
30	Model predictive control of linear time varying systems using Laguerre functions. , 2016, , .		3
31	Improving stabilization of passive walking using chaos. , 2016, , .		0
32	The role of time in conflict-triggered control: Extending the theory of response-conflict monitoring. Neuroscience Letters, 2016, 618, 110-114.	1.0	2
33	Subject adaptation using selective style transfer mapping for detection of facial action units. Expert Systems With Applications, 2016, 56, 282-290.	4.4	8
34	Diverse videos synthesis using manifoldâ€based parametric motion model for facial understanding. IET Image Processing, 2016, 10, 253-260.	1.4	6
35	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
36	Incorporating prior knowledge from the new person into recognition of facial expression. Signal, Image and Video Processing, 2016, 10, 235-242.	1.7	5

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37	Efficacy of fractal electrodes in transcranial direct current stimulation: A computational modeling study. , 2015, , .		2
38	Local Features Analysis of On-Line Signature Using Modified Distance of DTW. International Journal of Computational Methods, 2015, 12, 1550016.	0.8	7
39	Video‐based facial expression recognition by removing the style variations. IET Image Processing, 2015, 9, 596-603.	1.4	10
40	The role of internal forward models and proprioception in hand position estimation. Journal of Integrative Neuroscience, 2015, 14, 403-418.	0.8	4
41	Computer-based working memory training in children with mild intellectual disability. Early Child Development and Care, 2015, 185, 66-74.	0.7	13
42	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
43	Bifurcation analysis of â€œsynchronization fluctuationâ€: a diagnostic measure of brain epileptic states. Frontiers in Computational Neuroscience, 2014, 8, 11.	1.2	1
44	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
45	Modeling studies for designing transcranial direct current stimulation protocol in Alzheimer's disease. Frontiers in Computational Neuroscience, 2014, 8, 72.	1.2	7
46	Modeling the effect of explicit information in visuomotor adaptation. , 2014, , .		1
47	A noise adaptive method for needle localization in 3D ultrasound images. , 2014, , .		1
48	A Network Theory View on the Thalamo-Cortical Loop. Neurophysiology, 2014, 46, 391-397.	0.2	1
49	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
50	One-dimensional map-based neuron model: A logistic modification. Chaos, Solitons and Fractals, 2014, 65, 20-29.	2.5	15
51	Reinforcement-conflict based control: An integrative model of error detection in anterior cingulate cortex. Neurocomputing, 2014, 123, 140-149.	3.5	5
52	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
53	Task-specific stability in muscle activation space during unintentional movements. Experimental Brain Research, 2014, 232, 3645-3658.	0.7	8
54	A hypothesis on the role of perturbation size on the human sensorimotor adaptation. Frontiers in Computational Neuroscience, 2014, 8, 28.	1.2	4

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55	Needle Detection in 3D Ultrasound Images Using Anisotropic Diffusion and Robust Fitting. Communications in Computer and Information Science, 2014, , 111-120.	0.4	1
56	SIMILARITY EVALUATION OF ONLINE SIGNATURES BASED ON MODIFIED DYNAMIC TIME WARPING. Applied Artificial Intelligence, 2013, 27, 599-617.	2.0	15
57	A New Proposal on How Motor Memory Is Consolidated. Journal of Neuropsychiatry and Clinical Neurosciences, 2013, 25, E03-E04.	0.9	6
58	Modeling error detection in human brain: A preliminary unification of reinforcement learning and conflict monitoring theories. Neurocomputing, 2013, 103, 1-13.	3.5	7
59	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
60	Improving motor functions in children with Down syndrome. Medical Hypotheses, 2013, 81, 746.	0.8	0
61	A sliding-mode controller for dual-user teleoperation with unknown constant time delays. Robotica, 2013, 31, 589-598.	1.3	12
62	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
63	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
64	A biologically inspired neural model for visual and proprioceptive integration including sensory training. Journal of Integrative Neuroscience, 2013, 12, 491-511.	0.8	2
65	Is Attention Deficit Hyperactivity Disorder a Kind of Intermittent Chaos?. Journal of Neuropsychiatry and Clinical Neurosciences, 2013, 25, E02-E02.	0.9	12
66	SEPARATING PARKINSONIAN PATIENTS FROM NORMAL PERSONS USING HANDWRITING FEATURES. Journal of Mechanics in Medicine and Biology, 2013, 13, 1350030.	0.3	9
67	Extracting and study of synchronous muscle synergies during fast arm reaching movements. , 2013, , .		5
68	Comparison of visual and proprioceptive training on multisensory perception using a new designed setup. , 2013, , .		2
69	Using Brain Network Graph Modeling to Explore the Cause of Non-Motor Symptoms in Parkinson's Disease. Journal of Neuropsychiatry and Clinical Neurosciences, 2013, 25, E60-E60.	0.9	0
70	Managing Epileptic Seizures by Controlling the Brain Driver Nodes: A Complex Network View. Frontiers in Bioengineering and Biotechnology, 2013, 1, 21.	2.0	2
71	Authentication based on pole-zero models of signature velocity. Journal of Medical Signals and Sensors, 2013, 3, 195.	0.5	15
72	Introducing a New Method for Early Diagnosis of Parkinson's Disease. Journal of Neuropsychiatry and Clinical Neurosciences, 2012, 24, E10-E10.	0.9	0

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73	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
74	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
75	The effect of proprioceptive training on multisensory perception under visual uncertainty. Journal of Integrative Neuroscience, 2012, 11, 401-415.	0.8	4
76	Feature extraction based DCT on dynamic signature verification. Scientia Iranica, 2012, 19, 1810-1819.	0.3	54
77	A predictive human-inspired path planning method based on the dynamic wave expansion neural network (DWENN). , 2012, , .		0
78	Study of VTLN method to recognize common speech disorders in speech therapy of Persian children. , 2012, , .		2
79	Preparing to Reach: Selecting an Adaptive Long-Latency Feedback Controller. Journal of Neuroscience, 2012, 32, 9537-9545.	1.7	72
80	Supervisory model predictive impedance control for human arm movement. , 2012, , .		0
81	Pathophysiology of freezing of gait and some possible treatments for it. Medical Hypotheses, 2012, 78, 258-261.	0.8	7
82	Modeling the gait of normal and Parkinsonian persons for improving the diagnosis. Neuroscience Letters, 2012, 509, 72-75.	1.0	21
83	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
84	Estimation of time-varying human arm stiffness using electromyogram signal. , 2012, , .		0
85	Authentication based on signature verification using position, velocity, acceleration and Jerk signals. , 2012, , .		9
86	A neural model of multisensory integration including proprioceptive attention under visual uncertainty. , 2012, , .		0
87	Designing a Decision Support System for Distinguishing ADHD from Similar Children Behavioral Disorders. Journal of Medical Systems, 2012, 36, 1335-1343.	2.2	12
88	Do the chaotic features of gait change in Parkinson's disease?. Journal of Theoretical Biology, 2012, 307, 160-167.	0.8	22
89	Automatic Paint Defect Detection and Classification of Car Body. , 2011, , .		8
90	Controlling the depth of anesthesia using model predictive controller and Extended Kalman Filter. , 2011, , .		4

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91	Car Body Paint Defect Inspection Using Rotation Invariant Measure of the Local Variance and One-Against-All Support Vector Machine. , 2011, , .		7
92	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
93	A new set of desired objectives for dual-user systems in the presence of unknown communication delay. , 2011, , .		7
94	A novel shared structure for dual user systems with unknown time-delay utilizing adaptive impedance control. , 2011, , .		16
95	Dynamic signature verification based on DCT of local features. , 2011, , .		2
96	Control challenges in non-minimum phase tele-robotics systems. , 2011, , .		5
97	Automatic classification of hyperactive children: Comparing multiple artificial intelligence approaches. Neuroscience Letters, 2011, 498, 190-193.	1.0	4
98	Audio–visual speaker identification using dynamic facial movements and utterance phonetic content. Applied Soft Computing Journal, 2011, 11, 2083-2093.	4.1	10
99	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
100	Central Pattern Generator: The Main Cause of Huntington's Disease. Journal of Neuropsychiatry and Clinical Neurosciences, 2010, 22, 123.e34-123.e34.	0.9	0
101	A Chaotic Viewpoint on DBS Treatment of Parkinson's Disease. Journal of Neuropsychiatry and Clinical Neurosciences, 2010, 22, 247.e12-247.e13.	0.9	0
102	A robust feedback linearization approach for tracking control of flexible-link manipulators using an EKF disturbance estimator. , 2010, , .		8
103	Using a parameter of black box model for gait as a criterion to differentiate between parkinson disease &amp; healthy states. , 2010, , .		1
104	A robust control architecture for dual user teleoperation system with time-delay. , 2010, , .		11
105	Tip position tracking of flexible-link manipulators based on online robust trajectory modification. , 2010, , .		3
106	Different spatial scales in mapping from grid cells to place cells: A neural network model. , 2009, , .		0
107	Is the Chaotic Nature of Parkinson's Disease Prone to Simulation?. Journal of Neuropsychiatry and Clinical Neurosciences, 2009, 21, 101-102.	0.9	0
108	Constrained incremental predictive controller design for a flexible joint robot. ISA Transactions, 2009, 48, 321-326.	3.1	30

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109	A predictive reinforcement learning framework for modeling human decision making behavior. , 2009, , .		0
110	Huntington's disease: Modeling the gait disorder and proposing novel treatments. Journal of Theoretical Biology, 2008, 254, 361-367.	0.8	18
111	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
112	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
113	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
114	Controlling the Depth of Anesthesia by Using Extended DMC. , 2008, , .		4
115	From Grid Cells to Place Cells: A Radial Basis Function Network Model. , 2008, , .		1
116	Modeling Kinematic Features of Human Handwriting using Model Predictive Control. , 2008, , .		0
117	Extracting Reliable Handwriting Kinematic Feauters by using Neural Network for Diagnosing Schizophrenia Disease. , 2008, , .		0
118	Predicting Atrial Fibrillation termination using ECG features, a comparison. , 2008, , .		2
119	Gene Regulatory Network Modeling using Bayesian Networks and Cross Correlation. , 2008, , .		8
120	Generalized Predictive Control of Depth of Anesthesia by Using a Pharmocokinetic-Pharmacodynamic Model of the Patient. , 2008, , .		7
121	Control of Hand Impedance Under Static Conditions and During Reaching Movement. Journal of Neurophysiology, 2007, 97, 2676-2685.	0.9	47
122	Path planning in the hippocampo-prefrontal cortex pathway: An adaptive model based receding horizon planner. Medical Hypotheses, 2007, 68, 1411-1415.	0.8	20
123	Could Parkinson's disease be diagnosed at an early stage by measuring rest tremor under stressed conditions?. Medical Hypotheses, 2007, 68, 927.	0.8	0
124	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
125	PSpice Simulation of Cardiac Impulse Propagation: studying the mechanisms of action potential propagation. , 2006, , .		0
126	A cybernetic view on wind-up. Medical Hypotheses, 2006, 67, 304-306.	0.8	10

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127	Adjustable primitive pattern generator: A novel cerebellar model for reaching movements. Neuroscience Letters, 2006, 406, 232-234.	1.0	5
128	Transfer and durability of acquired patterns of human arm stiffness. Experimental Brain Research, 2006, 170, 227-237.	0.7	7
129	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
130	Computational Modeling of AÃŸ Fiber Wind-up. , 2006, 2006, 4975-8.		5
131	Learning to Control Arm Stiffness Under Static Conditions. Journal of Neurophysiology, 2004, 92, 3344-3350.	0.9	81