Sandhya Samarasinghe

List of Publications by Year
in descending order

77	1,432	393982	414034
papers	citations	19 h-index	32 g-index

77	77	77	1751
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Fundamental Boolean network modelling for childhood acute lymphoblastic leukaemia pathways. Quantitative Biology, 2022, 10, 94-121.	0.3	0
2	A new hierarchical approach to multi-level model abstraction for simplifying ODE models of biological networks and a case study: The G1/S Checkpoint/DNA damage signalling pathways of mammalian cell cycle. BioSystems, 2021, 203, 104374.	0.9	3
3	A Comprehensive Conceptual and Computational Dynamics Framework for Autonomous Regeneration Systems. Artificial Life, 2021, 27, 80-104.	1.0	4
4	A Novel Computational Approach for Biomarker Detection for Gene Expression-Based Computer-Aided Diagnostic Systems for Breast Cancer. Methods in Molecular Biology, 2021, 2190, 195-208.	0.4	5
5	Computational Modelling of Synaptic Plasticity: A review of models, parameter estimation using deep learning, and stochasticity. , 2021, , .		0
6	Novel domain expansion methods to improve the computational efficiency of the Chemical Master Equation solution for large biological networks. BMC Bioinformatics, 2020, 21, 515.	1.2	2
7	Towards abstraction of computational modelling of mammalian cell cycle: Model reduction pipeline incorporating multi-level hybrid petri nets. Journal of Theoretical Biology, 2020, 496, 110212.	0.8	1
8	Using activity time windows and logical representation to reduce the complexity of biological network models: G1/S checkpoint pathway with DNA damage. BioSystems, 2020, 191-192, 104128.	0.9	2
9	Mathematical modelling of core regulatory mechanism in p53 protein that activates apoptotic switch. Journal of Theoretical Biology, 2019, 462, 134-147.	0.8	10
10	Neural Networks for Robotic Detection of Mastitis in Dairy Cows: Netherlands and New Zealand Perspectives. Lecture Notes in Networks and Systems, 2018, , 989-996.	0.5	0
11	Boolean Calcium Signalling Model Predicts Calcium Role in Acceleration and Stability of Abscisic Acid-Mediated Stomatal Closure. Scientific Reports, 2018, 8, 17635.	1.6	25
12	A Computational Framework for Autonomous Self-repair Systems. Lecture Notes in Computer Science, 2018, , 153-159.	1.0	5
13	A Novel Data-Driven Boolean Model for Genetic Regulatory Networks. Frontiers in Physiology, 2018, 9, 1328.	1.3	11
14	Global sensitivity analysis of a model related to memory formation in synapses: Model reduction based on epistemic parameter uncertainties and related issues. Journal of Theoretical Biology, 2017, 419, 116-136.	0.8	2
15	A system of recurrent neural networks for modularising, parameterising and dynamic analysis of cell signalling networks. BioSystems, 2017, 153-154, 6-25.	0.9	2
16	A comprehensive complex systems approach to the study and analysis of mammalian cell cycle control system in the presence of DNA damage stress. Journal of Theoretical Biology, 2017, 429, 204-228.	0.8	14
17	Computational investigation of Amyloid-Î²-induced location- and subunit-specific disturbances of NMDAR at hippocampal dendritic spine in Alzheimerâ€™s disease. PLoS ONE, 2017, 12, e0182743.	1.1	14
18	Modelling bidirectional modulations in synaptic plasticity: A biochemical pathway model to understand the emergence of long term potentiation (LTP) and long term depression (LTD). Journal of Theoretical Biology, 2016, 403, 159-177.	0.8	14

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19	A novel semi-quantitative Fuzzy Cognitive Map model for complex systems for addressing challenging participatory real life problems. Applied Soft Computing Journal, 2016, 48, 91-110.	4.1	23
20	Order in the Black Box: Consistency and Robustness of Hidden Neuron Activation of Feed Forward Neural Networks and Its Use in Efficient Optimization of Network Structure. Studies in Computational Intelligence, 2016, , 15-43.	0.7	0
21	Stochastic Neural Networks for Modelling Random Processes from Observed Data. Studies in Computational Intelligence, 2016, , 83-107.	0.7	0
22	Artificial Neural Network Modelling. Studies in Computational Intelligence, 2016, , .	0.7	88
23	Improved Ultrasound Based Computer Aided Diagnosis System for Breast Cancer Incorporating a New Feature of Mass Central Regularity Degree (CRD). Studies in Computational Intelligence, 2016, , 213-233.	0.7	1
24	Computational modeling and experimental validation of odor detection behaviors of classically conditioned parasitic wasp, Microplitis croceipes. Biotechnology Progress, 2015, 31, 596-606.	1.3	3
25	Ca2+ dysregulation in the endoplasmic reticulum related to Alzheimerâ€™s disease: A review on experimental progress and computational modeling. BioSystems, 2015, 134, 1-15.	0.9	25
26	Mathematical modelling of p53 basal dynamics and DNA damage response. Mathematical Biosciences, 2015, 259, 27-42.	0.9	27
27	Modelling the dynamics of CaMKIIâ€“NMDAR complex related to memory formation in synapses: The possible roles of threonine 286 autophosphorylation of CaMKII in long term potentiation. Journal of Theoretical Biology, 2015, 365, 403-419.	0.8	13
28	Neural Networks and Fuzzy Clustering Methods for Assessing the Efficacy of Microarray Based Intrinsic Gene Signatures in Breast Cancer Classification and the Character and Relations of Identified Subtypes. Methods in Molecular Biology, 2015, 1260, 285-317.	0.4	0
29	Regulation of Meiosis Initiation before the Commitment Point in Budding Yeast: A Review of Biology, Molecular Mechanisms and Related Mathematical Models. Current Bioinformatics, 2015, 10, 208-224.	0.7	0
30	The meioticâ€“mitotic initiation switch in budding yeast maintains its function robustly against sensitive parameter perturbations. BioSystems, 2014, 124, 61-74.	0.9	0
31	Integrated Analysis of Gene Network in Childhood Leukemia from Microarray and Pathway Databases. BioMed Research International, 2014, 2014, 1-7.	0.9	10
32	Artificial neural networks to identify naturally existing disease severity status. Neural Computing and Applications, 2014, 25, 1031-1041.	3.2	12
33	Complex time series analysis of PM10 and PM2.5 for a coastal site using artificial neural network modelling and k-means clustering. Atmospheric Environment, 2014, 94, 106-116.	1.9	117
34	A nutrient dependant switch explains mutually exclusive existence of meiosis and mitosis initiation in budding yeast. Journal of Theoretical Biology, 2014, 341, 88-101.	0.8	4
35	Systems biology of synaptic plasticity: A review on N-methyl-d-aspartate receptor mediated biochemical pathways and related mathematical models. BioSystems, 2014, 122, 7-18.	0.9	18
36	Computational experiments reveal the efficacy of targeting CDK2 and CKIs for significantly lowering cellular senescence bar for potential cancer treatment. BioSystems, 2013, 111, 71-82.	0.9	11

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37	Novel recurrent neural network for modelling biological networks: Oscillatory p53 interaction dynamics. BioSystems, 2013, 114, 191-205.	0.9	26
38	Modelling fuel consumption in wheat production using artificial neural networks. Energy, 2013, 49, 337-343.	4.5	13
39	Mixed-method integration and advances in fuzzy cognitive maps for computational policy simulations for natural hazard mitigation. Environmental Modelling and Software, 2013, 39, 188-200.	1.9	28
40	CO2 emissions from farm inputs â€œCase study of wheat production in Canterbury, New Zealandâ€• Environmental Pollution, 2012, 171, 126-132.	3.7	32
41	A GENERALIZED STOCHASTIC SOLUTE TRANSPORT MODEL FOR MULTISCALE DISPERSION IN POROUS MEDIA. Journal of Porous Media, 2012, 15, 153-170.	1.0	0
42	Modelling Energy Use and Fuel Consumption in Wheat Production Using Indirect Factors and Artificial Neural Networks. Lecture Notes in Computer Science, 2012, , 25-32.	1.0	0
43	Age and Attitude toward Climate Change in Seoul, Korea. The Korea Spatial Planning Review, 2012, 74, 221-232.	0.2	1
44	Robustness of CDK2 in triggering cellular senescence based on probability of DNA-damaged cells passing G1/S checkpoint. , 2011, , .		0
45	Microarray gene expression: A study of between-platform association of Affymetrix and cDNA arrays. Computers in Biology and Medicine, 2011, 41, 980-986.	3.9	20
46	Determination and modelling of energy consumption in wheat production using neural networks: â€œA case study in Canterbury province, New Zealandâ€• Energy, 2011, 36, 5140-5147.	4.5	107
47	Robustness of circadian rhythms in the presence of molecular fluctuations: An investigation based on a mechanistic, statistical theory and a simulation algorithm. BioSystems, 2011, 106, 57-66.	0.9	3
48	A field study of energy consumption in wheat production in Canterbury, New Zealand. Energy Conversion and Management, 2011, 52, 2526-2532.	4.4	47
49	Robustness of CDK2 in Triggering Cellular Senescence based on Probability of DNA-damaged Cells Passing G1â^•S Checkpoint. , 2011, , .		0
50	An unbiased sensitivity analysis reveals important parameters controlling periodicity of circadian clock. Biotechnology and Bioengineering, 2010, 105, 250-259.	1.7	8
51	Robustness of G1/S checkpoint pathways in cell cycle regulation based on probability of DNA-damaged cells passing as healthy cells. BioSystems, 2010, 101, 213-221.	0.9	21
52	Determination of fuel consumption and indirect factors affecting it in wheat production in Canterbury, New Zealand. Energy, 2010, 35, 5400-5405.	4.5	39
53	Detection of mastitis and its stage of progression by automatic milking systems using artificial neural networks. Journal of Dairy Research, 2010, 77, 168-175.	0.7	42
54	DifFUZZY: a fuzzy clustering algorithm for complex datasets. International Journal of Computational Intelligence in Bioinformatics and Systems Biology, 2010, 1, 402.	0.1	21

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55	Machine Learning for Childhood Acute Lymphoblastic Leukaemia Gene Expression Data Analysis: A Review. Current Bioinformatics, 2010, 5, 118-133.	0.7	1
56	Microarray Data Integration: Frameworks and a List of Underlying Issues. Current Bioinformatics, 2010, 5, 280-289.	0.7	7
57	Towards a generalized colour image segmentation for kiwifruit detection. , 2009, , .		3
58	Synthesizing Neurophysiology, Genetics, Behaviour and Learning to Produce Whole-Insect Programmable Sensors to Detect Volatile Chemicals. Biotechnology and Genetic Engineering Reviews, 2009, 26, 179-204.	2.4	5
59	Use of neural networks to detect minor and major pathogens that cause bovine mastitis. Journal of Dairy Science, 2009, 92, 1493-1499.	1.4	20
60	Modelling variability in full-field displacement profiles and Poisson ratio of wood in compression using stochastic neural networks. Silva Fennica, 2009, 43, .	0.5	6
61	Exploration of fracture dynamics properties and predicting fracture toughness of individual wood beams using neural networks. Silva Fennica, 2009, 43, .	0.5	1
62	Digital image analysis based automated kiwifruit counting technique. , 2008, , .		22
63	A Review of Systems Biology Perspective on Genetic Regulatory Networks with Examples. Current Bioinformatics, 2008, 3, 197-225.	0.7	27
64	The estimation of parameters for stochastic differential equations using neural networks. Inverse Problems in Science and Engineering, 2007, 15, 629-641.	1.2	8
65	Classification of lamb carcass using machine vision: Comparison of statistical and neural network analyses. Journal of Food Engineering, 2007, 82, 26-34.	2.7	46
66	Neural networks for predicting fracture toughness of individual wood samples. Silva Fennica, 2007, 41, .	0.5	28
67	Prediction of lamb carcass grades using features extracted from lamb chop images. Journal of Food Engineering, 2006, 74, 116-124.	2.7	19
68	Prediction of lamb tenderness using image surface texture features. Journal of Food Engineering, 2006, 77, 492-499.	2.7	63
69	Neural Networks for Applied Sciences and Engineering. , 2006, , .		36
70	Stress intensity factor of wood from crack-tip displacement fields obtained from digital image processing. Silva Fennica, 2004, 38, .	0.5	27
71	Three neural network case studies in biology and natural resource management. , 2002, , .		1
72	Displacement fields of wood in tension based on image processing: Part 1. Tension parallel- and perpendicular- to grain and comparisons with isotropic behaviour. Silva Fennica, 2000, 34, .	0.5	8

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73	Displacement fields of wood in tension based on image processing: Part 2. Crack-tip displacements in mode-I and mixed-mode fracture. Silva Fennica, 2000, 34, .	0.5	6
74	Modelling heat and mass transfer in drying of biological materials: a simplified approach to materials with small dimensions. Ecological Modelling, 1996, 86, 163-167.	1.2	15
75	A co-operative hybrid algorithm for fault diagnosis in power transmission. , 0, , .		2
76	Neural Networks for Applied Sciences and Engineering. , 0, , .		207
77	SYNTHESIZING NEUROPHYSIOLOGY, GENETICS, BEHAVIOUR AND LEARNING TO PRODUCE WHOLE-INSECT PROGRAMMABLE SENSORS TO DETECT VOLATILE CHEMICALS. , 0, , 179-204.		0