

Don Kulasiri

List of Publications by Year in descending order

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69
papers

752
citations

566801

15
h-index

610482

24
g-index

72
all docs

72
docs citations

72
times ranked

747
citing authors

#	ARTICLE	IF	CITATIONS
1	Prediction of lamb tenderness using image surface texture features. Journal of Food Engineering, 2006, 77, 492-499.	2.7	63
2	Using insect sniffing devices for detection. Trends in Biotechnology, 2008, 26, 288-294.	4.9	48
3	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
4	Modelling of circadian rhythms in Drosophila incorporating the interlocked PER/TIM and VRI/PDP1 feedback loops. Journal of Theoretical Biology, 2007, 245, 290-304.	0.8	36
5	Validating models of complex, stochastic, biological systems. Ecological Modelling, 1996, 86, 129-134.	1.2	34
6	Neural networks for predicting fracture toughness of individual wood samples. Silva Fennica, 2007, 41, .	0.5	28
7	A Review of Systems Biology Perspective on Genetic Regulatory Networks with Examples. Current Bioinformatics, 2008, 3, 197-225.	0.7	27
8	Mathematical modelling of p53 basal dynamics and DNA damage response. Mathematical Biosciences, 2015, 259, 27-42.	0.9	27
9	Stress intensity factor of wood from crack-tip displacement fields obtained from digital image processing. Silva Fennica, 2004, 38, .	0.5	27
10	Novel recurrent neural network for modelling biological networks: Oscillatory p53 interaction dynamics. BioSystems, 2013, 114, 191-205.	0.9	26
11	Ca ²⁺ dysregulation in the endoplasmic reticulum related to Alzheimer's disease: A review on experimental progress and computational modeling. BioSystems, 2015, 134, 1-15.	0.9	25
12	Digital image analysis based automated kiwifruit counting technique. , 2008, , .		22
13	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
14	On modelling the drying of porous materials: analytical solutions to coupled partial differential equations governing heat and moisture transfer. Mathematical Problems in Engineering, 2005, 2005, 275-291.	0.6	20
15	Prediction of lamb carcass grades using features extracted from lamb chop images. Journal of Food Engineering, 2006, 74, 116-124.	2.7	19
16	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
17	A machine learning application in wine quality prediction. Machine Learning With Applications, 2022, 8, 100261.	3.0	17
18	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

#	ARTICLE	IF	CITATIONS
19	On the functional diversity of dynamical behaviour in genetic and metabolic feedback systems. BMC Systems Biology, 2009, 3, 51.	3.0	15
20	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
21	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
22	Computational investigation of Amyloid- β -induced location- and subunit-specific disturbances of NMDAR at hippocampal dendritic spine in Alzheimer's disease. PLoS ONE, 2017, 12, e0182743.	1.1	14
23	A root-morphology based simulation for plant/soil microbial ecosystem modelling. Ecological Modelling, 1997, 99, 275-287.	1.2	13
24	Modelling the dynamics of CaMKII-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
25	Pseudo-3-D moment method for rapid calculation of electric field distribution in a low-loss inhomogeneous dielectric. IEEE Transactions on Antennas and Propagation, 2001, 49, 1117-1122.	3.1	11
26	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
27	Integrated Analysis of Gene Network in Childhood Leukemia from Microarray and Pathway Databases. BioMed Research International, 2014, 2014, 1-7.	0.9	10
28	Mathematical modelling of core regulatory mechanism in p53 protein that activates apoptotic switch. Journal of Theoretical Biology, 2019, 462, 134-147.	0.8	10
29	The effects of fungal lipase-treated milk lipids on bread making. LWT - Food Science and Technology, 2020, 128, 109455.	2.5	10
30	The estimation of parameters for stochastic differential equations using neural networks. Inverse Problems in Science and Engineering, 2007, 15, 629-641.	1.2	8
31	An unbiased sensitivity analysis reveals important parameters controlling periodicity of circadian clock. Biotechnology and Bioengineering, 2010, 105, 250-259.	1.7	8
32	Integrated signaling pathway and gene expression regulatory model to dissect dynamics of Escherichia coli challenged mammary epithelial cells. BioSystems, 2014, 126, 27-40.	0.9	6
33	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
34	Modelling Circadian Rhythms in Drosophila and Investigation of VRI and PDP1 Feedback Loops Using a New Mathematical Model. Mathematical Modelling of Natural Phenomena, 2008, 3, 1-26.	0.9	5
35	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
36	Distinct noise-controlling roles of multiple negative feedback mechanisms in a prokaryotic operon system. IET Systems Biology, 2011, 5, 145-156.	0.8	5

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37	Theory of diffusions applied to stochastic flow in porous media. <i>Mathematical and Computer Modelling</i> , 2003, 38, 1453-1459.	2.0	4
38	A nutrient dependant switch explains mutually exclusive existence of meiosis and mitosis initiation in budding yeast. <i>Journal of Theoretical Biology</i> , 2014, 341, 88-101.	0.8	4
39	On multiple regulatory mechanisms in the tryptophan operon system in <i>Escherichia coli</i> : in silico study of perturbation dynamics. <i>In Silico Biology</i> , 2008, 8, 485-510.	0.4	4
40	COMPUTATIONAL MODELING OF TURBULENT VELOCITY STRUCTURES FOR AN OPEN CHANNEL FLOW USING KARHUNEN-LOÅ%VE EXPANSION. <i>International Journal of Computational Methods</i> , 2007, 04, 493-519.	0.8	3
41	Towards a generalized colour image segmentation for kiwifruit detection. , 2009, , .		3
42	Robustness of circadian rhythms in the presence of molecular fluctuations: An investigation based on a mechanistic, statistical theory and a simulation algorithm. <i>BioSystems</i> , 2011, 106, 57-66.	0.9	3
43	Computational modeling and experimental validation of odor detection behaviors of classically conditioned parasitic wasp, <i>Microplitis croceipes</i> . <i>Biotechnology Progress</i> , 2015, 31, 596-606.	1.3	3
44	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. <i>BioSystems</i> , 2021, 203, 104374.	0.9	3
45	A review of molecular mechanisms linked to potential renal injury agents in tropical rural farming communities. <i>Environmental Toxicology and Pharmacology</i> , 2022, 92, 103850.	2.0	3
46	A simulation model of woollen system carpet yarn manufacture for production planning applications. <i>Computers and Electronics in Agriculture</i> , 1995, 12, 249-260.	3.7	2
47	A Stochastic Computational Model for Solute Transport in Porous Media. <i>North-Holland Series in Applied Mathematics and Mechanics</i> , 2002, , 169-204.	0.0	2
48	Global sensitivity analysis of a model related to memory formation in synapses: Model reduction based on epistemic parameter uncertainties and related issues. <i>Journal of Theoretical Biology</i> , 2017, 419, 116-136.	0.8	2
49	Novel domain expansion methods to improve the computational efficiency of the Chemical Master Equation solution for large biological networks. <i>BMC Bioinformatics</i> , 2020, 21, 515.	1.2	2
50	Three neural network case studies in biology and natural resource management. , 2002, , .		1
51	ON EXPLORING EFFECTS OF MOLECULAR NOISE IN A SIMPLE VIRAL INFECTION MODEL. <i>International Journal of Biomathematics</i> , 2010, 03, 1-19.	1.5	1
52	Machine Learning for Childhood Acute Lymphoblastic Leukaemia Gene Expression Data Analysis: A Review. <i>Current Bioinformatics</i> , 2010, 5, 118-133.	0.7	1
53	Computing Molecular Fluctuations in Biochemical Reaction Systems Based on a Mechanistic, Statistical Theory of Irreversible Processes. <i>Methods in Enzymology</i> , 2011, 487, 253-278.	0.4	1
54	Towards abstraction of computational modelling of mammalian cell cycle: Model reduction pipeline incorporating multi-level hybrid petri nets. <i>Journal of Theoretical Biology</i> , 2020, 496, 110212.	0.8	1

#	ARTICLE	IF	CITATIONS
55	Correction to "pseudo 3-D moment method for rapid calculation of electric field distribution in a low loss inhomogeneous dielectric". IEEE Transactions on Antennas and Propagation, 2002, 50, 414-414.	3.1	0
56	Robustness of CDK2 in triggering cellular senescence based on probability of DNA-damaged cells passing G1/S checkpoint. , 2011, , .		0
57	Robustness of CDK2 in Triggering Cellular Senescence based on Probability of DNA-damaged Cells Passing G1•S Checkpoint. , 2011, , .		0
58	A GENERALIZED STOCHASTIC SOLUTE TRANSPORT MODEL FOR MULTISCALE DISPERSION IN POROUS MEDIA. Journal of Porous Media, 2012, 15, 153-170.	1.0	0
59	The meiotic•mitotic initiation switch in budding yeast maintains its function robustly against sensitive parameter perturbations. BioSystems, 2014, 124, 61-74.	0.9	0
60	Stochastic Neural Networks for Modelling Random Processes from Observed Data. Studies in Computational Intelligence, 2016, , 83-107.	0.7	0
61	A Large Model Case Study: Solving CME for G1/S Checkpoint Involving the DNA-Damage Signal Transduction Pathway. , 2021, , 135-155.		0
62	Intelligent State Projection. , 2021, , 81-126.		0
63	Comparative Study and Analysis of Methods and Models. , 2021, , 127-134.		0
64	Investigation of a Stochastic Model for Multiscale Dispersion in Porous Media. Journal of Porous Media, 2008, 11, 507-524.	1.0	0
65	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
66	What can computational modeling offer for studying the Ca ²⁺ dysregulation in Alzheimer•s disease: current research and future directions. Neural Regeneration Research, 2018, 13, 1156.	1.6	0
67	Fundamental Boolean network modelling for childhood acute lymphoblastic leukaemia pathways. Quantitative Biology, 2022, 10, 94-121.	0.3	0
68	Computational Modelling of Synaptic Plasticity: A review of models, parameter estimation using deep learning, and stochasticity. , 2021, , .		0
69	SYNTHESIZING NEUROPHYSIOLOGY, GENETICS, BEHAVIOUR AND LEARNING TO PRODUCE WHOLE-INSECT PROGRAMMABLE SENSORS TO DETECT VOLATILE CHEMICALS. , 0, , 179-204.		0