

# D A Karras

## List of Publications by Year in descending order

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170  
papers

1,406  
citations

623734

14  
h-index

395702

33  
g-index

172  
all docs

172  
docs citations

172  
times ranked

1031  
citing authors

#	ARTICLE	IF	CITATIONS
1	An optimization technique for intrusion detection of industrial control network vulnerabilities based on BP neural network. International Journal of Systems Assurance Engineering and Management, 2022, 13, 576-582.	2.4	12
2	A Global Optimization Algorithm for Intelligent Electromechanical Control System with Improved Filling Function. Scientific Programming, 2022, 2022, 1-10.	0.7	16
3	Virtually Together: Developing a Local Social Network for Neighborhoods. Bulletin of Science, Technology and Society, 2021, 41, 10-19.	2.9	2
4	A Preliminary Analysis of the Perception Gap between Employers and Vocational Students for Career Sustainability. Sustainability, 2021, 13, 11327.	3.2	6
5	An Effective Statistical Test Suite for Pseudorandom number Generators in Digital Signatures and Security Robustness Evaluation including a Wavelet Test for Randomness. , 2020, , .		1
6	An efficient Multi-Agent Modelling Scheme of Wireless Sensor Networks (WSN) Towards Improved Performance Evaluation. International Review on Modelling and Simulations, 2020, 13, 383.	0.3	0
7	Using NASL based Superscripts to measure System Security through Analyzing and Organizing attacks. , 2019, , .		0
8	On Efficient Scheduling Schemes in Multiagent Wireless Sensor Networks Simulation Systems. , 2019, , .		0
9	Evaluation of Security Vulnerability Scanners for Small and Medium Enterprises Business Networks Resilience towards Risk Assessment. , 2019, , .		14
10	A Study on Clustering Initial Weights Space of MLP Neural Networks in Terms of Fast Convergence and Generalization Capability. , 2019, , 1-2.		0
11	A Systematic Review of Analytical Management Techniques Applied to Competition Analysis Modeling Towards a Framework for Integrating them with BPM. Lecture Notes in Business Information Processing, 2018, , 166-185.	1.0	1
12	On Scalable and Efficient Security Risk Modelling of Cloud Computing Infrastructure based on Markov processes. ITM Web of Conferences, 2017, 9, 03006.	0.5	0
13	Towards a Thorough Evaluation Framework of Software Tools Suitable for Small and Medium Size Enterprises Focusing on Modelling and Simulating Business Processes. Lecture Notes in Business Information Processing, 2017, , 161-182.	1.0	1
14	A Systematic Review of Analytical Management Techniques in Business Process Modelling for SMEs Beyond What-if-Analysis and Towards a Framework for Integrating Them with BPM. , 2017, , .		2
15	On novel efficient wireless access network design heuristic algorithms for QoS multiservice networks. , 2016, , .		3
16	On Integrating Natural Computing Based Optimization with Channel Assignment Mining and Decision Making Towards Efficient Spectrum Reuse in Cellular Networks Modelled Through Multi-agent System Schemes. Lecture Notes in Electrical Engineering, 2016, , 783-798.	0.4	0
17	A Conceptual Multi-agent Modeling of Dynamic Scheduling in Wireless Sensor Networks. Lecture Notes in Electrical Engineering, 2016, , 385-398.	0.4	0
18	An in Depth Comparative Analysis of Software Tools for Modelling and Simulating Business Processes. , 2016, , .		0

#	ARTICLE	IF	CITATIONS
19	On the detailed design issues of a multi-agent architecture based on CUDA threads towards efficiently Simulating WSN Systems. , 2015, , .		2
20	Two-Stage Evolutionary Quantification of In Vivo MRS Metabolites. , 2015, , 537-560.		1
21	Reliable estimation of a neural network's domain of validity through interval analysis based inversion. , 2015, , .		3
22	Dynamic channel assignment algorithms for supporting QoS based services in wireless cellular environments. , 2015, , .		1
23	New Genetic Optimization Strategies In Efficient Off-Line Traffic Engineering For Simulating Multi-Service UMTS Cellular Networks. , 2015, , .		0
24	On Multi-Agent Strategies For Efficiently Designing Competent Integrated Hardware-Generic Simulation Systems of Wireless Sensor Networks. , 2015, , .		0
25	A Hardware Based Novel Educational Methodology for Teaching Microprocessor Architectures Using Object Oriented Approach. International Review on Computers and Software, 2015, 10, 1071.	0.1	1
26	On improved modeling and simulation of wireless communication systems using multiagent and multi-threading systems architectures for efficient spectrum reuse. , 2014, , .		0
27	On the efficient design of a generic emulator module towards precise simulation of wireless sensor networks using XML. , 2014, , .		2
28	Solving the linear interval tolerance problem for weight initialization of neural networks. Neural Networks, 2014, 54, 17-37.	5.9	28
29	On Multi Agent based modeling and control in large scale wireless communication systems for improved resource allocation performance. Telecommunication Systems, 2013, 52, 1657-1675.	2.5	4
30	Color image watermarking via Quaternion Radial Tchebichef Moments. , 2013, , .		10
31	Improved compression of MRSI images involving the discrete wavelet transform and an integrated two level restoration methodology comparing different textural and optimization schemes. , 2013, , .		1
32	On content based MRSI retrieval integrating fuzzy descriptors in the wavelet domain. , 2013, , .		0
33	Lung cancer pathology discrimination techniques using time series analysis. , 2013, , .		1
34	Introducing Intelligent Agents Potential into a competent Integral Multi-Agent Sensor Network Simulation Architecture Design. Journal of Software Engineering and Applications, 2013, 06, 42-48.	1.1	2
35	Imaging Systems and Techniques 2011. Measurement Science and Technology, 2012, 23, 110101.	2.6	0
36	A computational intelligence framework for NMR spectroscopy imaging and retrieval. , 2012, , .		0

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37	On defining an hierarchical Secure proxy agent architecture for embedded communication network applications. , 2012, , .		0
38	Modeling efficient dynamic channel assignment schemes for quality of service wireless multimedia telecommunications through an extended and integrated Java simulation framework. , 2012, , .		0
39	New optimization models for survivability-supported traffic engineering in multi-service networks. , 2012, , .		0
40	Face detection in complex backgrounds based on the integration of neural classifiers through similarity analysis of higher order representation patterns. , 2011, , .		1
41	Evaluating novel DCA variations for efficient channel assignment in cellular communications through a generic Java simulation system. , 2011, , .		2
42	Semi-parametric estimation without searching in function space: application to in vivo metabolite quantitation. Measurement Science and Technology, 2011, 22, 114014.	2.6	2
43	In vivo MRS metabolite quantification using genetic optimization. Measurement Science and Technology, 2011, 22, 114004.	2.6	2
44	Efficient computation of Zernike and Pseudo-Zernike moments for pattern classification applications. Pattern Recognition and Image Analysis, 2010, 20, 56-64.	1.0	30
45	On quantifying MRS metabolites using a constrained Genetic Algorithm. , 2010, , .		1
46	Accelerating batched 1D-FFT with a CUDA-capable computer. , 2010, , .		3
47	Handling arbitrary unknown lineshape in in vivo MRS without searching in function space. , 2010, , .		1
48	Content based MRSI image indexing and retrieval involving a fuzzy descriptor. , 2010, , .		0
49	A Neural-Network Clustering-Based Algorithm for Privacy Preserving Data Mining. Communications in Computer and Information Science, 2010, , 269-276.	0.5	2
50	Improved Non Linear Time Series Forecasting Using Non Linear Analysis Techniques and RBF Neural Networks for MRS Signals and Chaotic Diode Resonator Circuits. Communications in Computer and Information Science, 2010, , 245-256.	0.5	0
51	On a Novel Simulation Framework and Scheduling Model Integrating Coverage Mechanisms for Sensor Networks and Handling Concurrency. Communications in Computer and Information Science, 2010, , 277-286.	0.5	2
52	New Strategies Based on Multithreading Methodology in Implementing Ant Colony Optimization Schemes for Improving Resource Management in Large Scale Wireless Communication Systems. Studies in Computational Intelligence, 2010, , 537-578.	0.9	0
53	A Constrained Genetic Algorithm with Adaptively Defined Fitness Function in MRS Quantification. Communications in Computer and Information Science, 2010, , 257-268.	0.5	1
54	New PDE-based methods for image enhancement using SOM and Bayesian inference in various discretization schemes. Measurement Science and Technology, 2009, 20, 104012.	2.6	21

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55	Modified Factorial-Free Direct Methods for Zernike and Pseudo-Zernike Moment Computation. IEEE Transactions on Instrumentation and Measurement, 2009, 58, 2121-2131.	4.7	12
56	On efficient multistep non-linear time series prediction in chaotic diode resonator circuits by optimizing the combination of non-linear time series analysis and neural networks. Engineering Applications of Artificial Intelligence, 2009, 22, 32-39.	8.1	12
57	Fault tree analysis and fuzzy expert systems: Early warning and emergency response of landfill operations. Environmental Modelling and Software, 2009, 24, 8-25.	4.5	52
58	Pattern classification by using improved wavelet Compressed Zernike Moments. Applied Mathematics and Computation, 2009, 212, 162-176.	2.2	28
59	Interpretation of Coherence Phase and Rhythmic Cumulant Results; A Simulation Study. , 2009, , .		0
60	Compression of MRI images using the discrete wavelet transform and improved parameter free Bayesian restoration techniques. , 2009, , .		6
61	Performance of the Orthogonal Moments in Reconstructing Biomedical Images. , 2009, , .		5
62	On an efficient modification of singular value decomposition using independent component analysis for improved MRS denoising and quantification. Measurement Science and Technology, 2009, 20, 104021.	2.6	6
63	Dealing with peaks overlapping issue in quantifying metabolites in MRSI. , 2009, , .		1
64	An Efficient Cross Layer Intra and Inter Domain Mobility Solution for IEEE 802.16e Mobile WiMAX. , 2009, , .		1
65	Non-Linear Analysis and Time Series Prediction of an Electrical Analogue of the Mechanical Double Pendulum. , 2009, , .		0
66	An Efficient Distributed Event Scheduling Algorithm for Large Scale Wireless Communications Simulation Modelling. , 2009, , .		0
67	On privacy-enhancing architectures for distribution of real time performance demanding mobile services. International Journal of Electronic Security and Digital Forensics, 2009, 2, 377.	0.2	1
68	Imaging systems and techniques. Measurement Science and Technology, 2009, 20, 100101.	2.6	1
69	An Improved Modular Neural Network Model for Adaptive Trajectory Tracking Control of Robot Manipulators. Lecture Notes in Computer Science, 2009, , 1063-1070.	1.3	1
70	Revisiting the Problem of Weight Initialization for Multi-Layer Perceptrons Trained with Back Propagation. Lecture Notes in Computer Science, 2009, , 308-315.	1.3	8
71	On the Integration of Neural Classifiers through Similarity Analysis of Higher Order Features. Lecture Notes in Computer Science, 2009, , 361-371.	1.3	0
72	On Efficient Content Based Information Retrieval Using SVM and Higher Order Correlation Analysis. Lecture Notes in Computer Science, 2009, , 112-119.	1.3	0

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73	Towards a Reliable Evaluation Framework for Message Authentication in Web-Based Transactions Based on an Improved Computational Intelligence and Dynamical Systems Methodology. Lecture Notes in Computer Science, 2009, , 595-602.	1.3	0
74	On Cellular Network Channels Data Mining and Decision Making through Ant Colony Optimization and Multi Agent Systems Strategies. Lecture Notes in Computer Science, 2009, , 372-387.	1.3	2
75	On a New Similarity Analysis in Frequency Domain for Mining Faces within a Complex Background. Lecture Notes in Computer Science, 2009, , 301-309.	1.3	0
76	On Efficient Security Modelling of Complex Interconnected Communication Systems based on Markov Processes. , 2008, , .		1
77	On Improved Event Scheduling Mechanisms for Wireless Communications Simulation Modelling. , 2008, , .		0
78	A new modification of Singular Value Decomposition using Independent Component Analysis with applications to MRS imaging quantification. , 2008, , .		1
79	An Efficient Fuzzy Expert System Architecture for Landfill Operation Reliability Management. Journal of Intelligent Systems, 2008, 17, .	1.6	1
80	On the implementation of ant colony optimization scheme for improved channel allocation in wireless communications. , 2008, , .		7
81	A Multi-Agent Simulation Model for Wireless Communications Involving an Improved Agent Negotiation Scheme Based on Real Time Event Scheduling Mechanisms. , 2008, , .		2
82	Two-stage hybrid tuning algorithm for training neural networks in image vision applications. International Journal of Signal and Imaging Systems Engineering, 2008, 1, 58.	0.6	8
83	On the Multi-threading Approach of Efficient Multi-agent Methodology for Modelling Cellular Communications Bandwidth Management. , 2008, , 431-443.		3
84	Efficient MRI Reconstruction Using a Hybrid Framework for Integrating Stepwise Bayesian Restoration and Neural Network Models in a Memory Based Priors System. Lecture Notes in Computer Science, 2008, , 237-246.	1.3	0
85	Multi-threading as a Tool for Efficient Simulation of Wireless Communication Systems. , 2007, , .		0
86	Genetic Optimization Methods for Traffic Engineering Problems in Multi-Service High Speed Optical Networks. Journal of Intelligent Systems, 2007, 16, .	1.6	0
87	Improved Multistep Nonlinear Time Series Prediction by applying Deterministic Chaos and Neural Network Techniques in Diode Resonator Circuits. , 2007, , .		4
88	A Robust Hierarchical Neural Network Methodology for Improved Image Classification Performance. , 2007, , .		0
89	Highly Compressed Zernike Moments by Smoothing. , 2007, , .		0
90	A Robust Feature Extraction Methodology for Improved Face Detection Performance within a Complex Background. , 2007, , .		0

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91	Improved Video Compression Schemes of Medical Image Sequences based on the Discrete Wavelet Transformation of Principal Textural Regions and Intelligent Restoration Techniques. , 2007, , .		4
92	On Improved MRI Segmentation Using Hierarchical Computational Intelligence Techniques and Textural Analysis of the Discrete Wavelet Transform Domain. , 2007, , .		2
93	Fast Computation of Orthogonal Fourier-Mellin Moments Using Modified Direct Method. , 2007, , .		6
94	An Efficient Invariant Image Recognition Methodology using Wavelet Compressed Zernike Moments Denoised through Self Organizing Maps. , 2007, , .		1
95	A new class of Zernike moments for computer vision applications. Information Sciences, 2007, 177, 2802-2819.	6.9	106
96	Fast numerically stable computation of orthogonal Fourierâ€™Mellin moments. IET Computer Vision, 2007, 1, 11-16.	2.0	30
97	Efficient Non Linear Time Series Prediction Using Non Linear Signal Analysis and Neural Networks in Chaotic Diode Resonator Circuits. , 2007, , 329-338.		3
98	A Multi-agent Architecture for Designing and Simulating Large Scale Wireless Systems Resource Allocation. Lecture Notes in Computer Science, 2007, , 405-415.	1.3	3
99	Efficient information theoretic extraction of higher order features for improving neural network-based spam e-mail categorization. Journal of Experimental and Theoretical Artificial Intelligence, 2006, 18, 523-534.	2.8	5
100	A Framework for Traffic Engineering and Routing in Survivable Multi-service High Bit Rates Optical Networks. Proceedings ELMAR, 2006, , .	0.0	1
101	An Improved Text Categorization Methodology Based on Second and Third Order Probabilistic Feature Extraction and Neural Network Classifiers. Lecture Notes in Computer Science, 2006, , 9-20.	1.3	3
102	Efficient information theoretic strategies for classifier combination, feature extraction and performance evaluation in improving false positives and false negatives for spam e-mail filtering. Neural Networks, 2005, 18, 799-807.	5.9	22
103	Improved MRI Mining by Integrating Support Vector Machine Priors in the Bayesian Restoration. Lecture Notes in Computer Science, 2005, , 325-333.	1.3	0
104	Efficient Digital Fingerprint Production and Evaluation for Secure Communication Systems Based on Genetic Algorithms. Lecture Notes in Computer Science, 2004, , 628-633.	1.3	1
105	Traffic engineering in multi-service networks comparing genetic and simulated annealing optimization techniques. , 2004, , .		2
106	Time series modeling of endocardial border motion in ultrasonic images comparing support vector machines, multilayer perceptrons and linear estimation techniques. Measurement: Journal of the International Measurement Confederation, 2004, 36, 331-345.	5.0	1
107	A combined genetic optimization and multilayer perceptron methodology for efficient digital fingerprint modeling and evaluation in secure communications. , 2004, , .		0
108	An Empirical Test Suite for Message Authentication Evaluation in Communications Based on Support Vector Machines. Lecture Notes in Computer Science, 2004, , 622-627.	1.3	0

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109	Computer-aided tumor detection in endoscopic video using color wavelet features. IEEE Transactions on Information Technology in Biomedicine, 2003, 7, 141-152.	3.2	402
110	CoLD: a versatile detection system for colorectal lesions in endoscopy video-frames. Computer Methods and Programs in Biomedicine, 2003, 70, 151-166.	4.7	116
111	On neural network techniques in the secure management of communication systems through improving and quality assessing pseudorandom stream generators. Neural Networks, 2003, 16, 899-905.	5.9	33
112	A Robust Meaning Extraction Methodology Using Supervised Neural Networks. Lecture Notes in Computer Science, 2002, , 498-510.	1.3	5
113	Strong Pseudorandom Bit Sequence Generators Using Neural Network Techniques and Their Evaluation for Secure Communications. Lecture Notes in Computer Science, 2002, , 615-626.	1.3	2
114	A SUPPORT VECTOR MACHINE FUNCTION APPROXIMATION APPROACH FOR SOLVING THE INVERSE MODELING PROBLEM IN INTELLIGENT ROBOTICS APPLICATIONS. , 2002, , .		0
115	Improved MR image reconstruction from sparsely sampled scans based on neural networks. Pattern Recognition Letters, 2001, 22, 35-46.	4.2	6
116	Improved Statistical Classification Methods in Computerized Psychiatric Diagnosis. Medical Decision Making, 2000, 20, 95-103.	2.4	4
117	MR image reconstruction from sparsely sampled scans based on multilayer perceptrons and using regularization techniques. , 2000, , .		0
118	Neural network based textural labeling of images in multimedia applications. , 1999, , .		0
119	Supervised and unsupervised neural network methods applied to textile quality control based on improved wavelet feature extraction techniques. International Journal of Computer Mathematics, 1998, 67, 169-181.	1.8	17
120	Neural network training and simulation using a multidimensional optimization system. International Journal of Computer Mathematics, 1998, 67, 33-46.	1.8	10
121	Information systems based on neural network and wavelet methods with application to decision making, modeling and prediction tasks. Kybernetes, 1998, 27, 224-236.	2.2	1
122	An update of the DEF database of protein fold class predictions. Nucleic Acids Research, 1997, 25, 235-235.	14.5	9
123	An efficient constrained learning algorithm with momentum acceleration. Neural Networks, 1995, 8, 237-249.	5.9	76
124	An efficient constrained training algorithm for feedforward networks. IEEE Transactions on Neural Networks, 1995, 6, 1420-1434.	4.2	61
125	An efficient constrained learning algorithm for optimal linear separability of the internal representations. , 1994, , .		0
126	Encoding of characters for OCR applications. , 1994, , .		0



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127	Minimum Distance Pattern Classifiers Based On A New Distance Metric. , 1993, , 1021-1021.		1
128	Comment: Neural network for estimation of parameters of sinewave. Electronics Letters, 1992, 28, 1750.	1.0	0
129	Hopfield-Tank neural net: Walsh to Fourier transform. Neurocomputing, 1992, 4, 37-41.	5.9	0
130	A low cost pattern classifier based on coding techniques. , 1990, , .		0
131	Transfer function determination of singular systems using the DFT. IEEE Transactions on Circuits and Systems, 1989, 36, 1140-1142.	0.9	14
132	A neural network for estimating the parameters of multiple sinusoids. , 0, , .		1
133	Optical Character Recognition Using Novel Feature Extraction & Neural Network Classification Techniques. , 0, , .		3
134	Pattern classification using a generalised Hamming distance metric. , 0, , .		3
135	A fast constrained learning algorithm based on the construction of suitable internal representations. , 0, , .		2
136	Comparison of learning algorithms for feedforward networks in large scale networks and problems. , 0, , .		3
137	Neural networks in multidimensional problems: a case study for questionnaire classification. , 0, , .		1
138	Tracking endocardial border motion in ultrasonic images by using neural networks and ARIMA modelling techniques. , 0, , .		0
139	A classification approach to image structure segmentation based on the wavelet transform. , 0, , .		0
140	Image compression using the wavelet transform on textural regions of interest. , 0, , .		6
141	On feature selection methods in the application of neural networks to social sciences. , 0, , .		0
142	A novel neural network training technique based on a multi-algorithm constrained optimization strategy. , 0, , .		1
143	Overfitting in multilayer perceptrons as a mechanism for (pseudo)random number generation in the design of secure electronic commerce systems. , 0, , .		3
144	Security modeling of electronic commerce infrastructures. , 0, , .		3

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145	Neural network reconstruction of MR images from noisy and sparse k-space samples. , 0, , .		0
146	Uuinformation-theoretic reconstruction of moment-coded grey-scale images. , 0, , .		0
147	A novel suite of tests for evaluating one-way hash functions for electronic commerce applications. , 0, , .		3
148	Improved MRI reconstruction from reduced scans k-space by integrating neural priors in the Bayesian restoration. , 0, , .		2
149	Evaluation of textural feature extraction schemes for neural network-based interpretation of regions in medical images. , 0, , .		13
150	Detection of lesions in endoscopic video using textural descriptors on wavelet domain supported by artificial neural network architectures. , 0, , .		21
151	Image coding using a wavelet based Zernike moments compression technique. , 0, , .		15
152	On edge detection in MRI using the wavelet transform and unsupervised neural networks. , 0, , .		5
153	Improved Bayesian MRI reconstruction involving neural priors based on a regularization approach. , 0, , .		0
154	Improving pseudorandom bit sequence generation and evaluation for secure Internet communications using neural network techniques. , 0, , .		2
155	Improved defect detection using support vector machines and wavelet feature extraction based on vector quantization and SVD techniques. , 0, , .		6
156	Neural network based benchmarks in the quality assessment of message digest algorithms for digital signatures based secure Internet communications. , 0, , .		0
157	Optimizing the structure of hierarchical mixture of experts using genetic algorithms. , 0, , .		0
158	Traffic engineering and routing in survivable multi-service networks. , 0, , .		0
159	Discretization schemes and numerical approximations of PDE inpainting models and a comparative evaluation on novel real world MRI reconstruction applications. , 0, , .		1
160	Two-stage neural network models for MR image reconstruction from sparsely sampled k-space. , 0, , .		0
161	Neural network models based on regularization techniques for off-line robot manipulator path planning. , 0, , .		3
162	Efficient reconstruction of moment-coded noisy medical images using maximum entropy. , 0, , .		0

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163	Efficient medical image compression/reconstruction applying the discrete wavelet transform on texturally clustered regions. , 0, , .		5
164	Efficient segmentation in MRI applying discrete wavelet transform and topology preserving neural networks. , 0, , .		1
165	Improved spam e-mail filtering based on committee machines and information theoretic feature extraction. , 0, , .		6
166	Efficient Computation of Orthogonal Moments by Suppressing the Factorial Terms. , 0, , .		1
167	Robust Defect Detection Using Improved Higher Order Wavelet Descriptors and Support Vector Machines for Visual Inspection Systems.. , 0, , .		0
168	Improved MRI Restoration by Integrating Bayesian formalism and Support Vector Machines in a Time Delayed priors Framework. , 0, , .		0
169	A Second Order Spread Spectrum Watermarking Scheme Using Multi-Threshold Wavelet Codec. , 0, , .		0
170	Heuristic Algorithms for Efficient Wireless Multimedia Network Design. , 0, , .		2