Alexandros T Tzallas

List of Publications by Year
in descending order

145 papers	3,205 citations	218592 26 h-index	175177 52 g-index
145 all docs	145 docs citations	145 times ranked	3729 citing authors

#	Article	IF	Citations
1	Epileptic Seizure Detection in EEGs Using Time&#x2013;Frequency Analysis. IEEE Transactions on Information Technology in Biomedicine, 2009, 13, 703-710.	3.6	614
2	Automatic Seizure Detection Based on Time-Frequency Analysis and Artificial Neural Networks. Computational Intelligence and Neuroscience, 2007, 2007, 1-13.	1.1	358
3	Assessment of Tremor Activity in the Parkinson's Disease Using a Set of Wearable Sensors. IEEE Transactions on Information Technology in Biomedicine, 2012, 16, 478-487.	3.6	183
4	Automatic detection of freezing of gait events in patients with Parkinson's disease. Computer Methods and Programs in Biomedicine, 2013, 110, 12-26.	2.6	166
5	PERFORM: A System for Monitoring, Assessment and Management of Patients with Parkinson's Disease. Sensors, 2014, 14, 21329-21357.	2.1	139
6	Wearability Assessment of a Wearable System for Parkinson's Disease Remote Monitoring Based on a Body Area Network of Sensors. Sensors, 2014, 14, 17235-17255.	2.1	88
7	High-Throughput, Machine Learning–Based Quantification of Steatosis, Inflammation, Ballooning, and Fibrosis in Biopsies From Patients With Nonalcoholic Fatty Liver Disease. Clinical Gastroenterology and Hepatology, 2020, 18, 2081-2090.e9.	2.4	85
8	An automated methodology for levodopa-induced dyskinesia: Assessment based on gyroscope and accelerometer signals. Artificial Intelligence in Medicine, 2012, 55, 127-135.	3.8	76
9	A Kalman filter based methodology for EEG spike enhancement. Computer Methods and Programs in Biomedicine, 2007, 85, 101-108.	2.6	71
10	A robust methodology for classification of epileptic seizures in EEG signals. Health and Technology, 2019, 9, 135-142.	2.1	66
11	EEG Transient Event Detection and Classification Using Association Rules. IEEE Transactions on Information Technology in Biomedicine, 2006, 10, 451-457.	3.6	63
12	A Multichannel Watershed-Based Segmentation Method for Multispectral Chromosome Classification. IEEE Transactions on Medical Imaging, 2008, 27, 697-708.	5.4	50
13	Machine Learning Algorithms and Statistical Approaches for Alzheimer's Disease Analysis Based on Resting-State EEG Recordings: A Systematic Review. International Journal of Neural Systems, 2021, 31, 2130002.	3.2	47
14	Parameters of glucose and lipid metabolism at the fasted state in drug-naïve first-episode patients with psychosis: Evidence for insulin resistance. Psychiatry Research, 2015, 229, 901-904.	1.7	42
15	Alzheimer's Disease and Frontotemporal Dementia: A Robust Classification Method of EEG Signals and a Comparison of Validation Methods. Diagnostics, 2021, 11, 1437.	1.3	42
16	The Use of Time-Frequency Distributions for Epileptic Seizure Detection in EEG Recordings. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2007, 2007, 3-6.	0.5	41
17	Epileptic Spike Detection Using a Kalman Filter Based Approach. , 2006, 2006, 501-4.		40
18	EEG Window Length Evaluation for the Detection of Alzheimer's Disease over Different Brain Regions. Brain Sciences, 2019, 9, 81.	1.1	35

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19	Derivation and validation of a cardiovascular risk score for prediction of major acute cardiovascular events in non‐alcoholic fatty liver disease; the importance of an elevated mean platelet volume. Alimentary Pharmacology and Therapeutics, 2019, 49, 1077-1085.	1.9	35
20	Analysis of electroencephalographic signals complexity regarding Alzheimer's Disease. Computers and Electrical Engineering, 2019, 76, 198-212.	3.0	35
21	EEG-Based Eye Movement Recognition Using Brain–Computer Interface and Random Forests. Sensors, 2021, 21, 2339.	2.1	34
22	Deep Learning on Histopathological Images for Colorectal Cancer Diagnosis: A Systematic Review. Diagnostics, 2022, 12, 837.	1.3	33
23	Using partial decision trees to predict Parkinson's symptoms: A new approach for diagnosis and therapy in patients suffering from Parkinson's disease. Computers in Biology and Medicine, 2012, 42, 195-204.	3.9	31
24	A cardiovascular simulator tailored for training and clinical uses. Journal of Biomedical Informatics, 2015, 57, 100-112.	2.5	31
25	Prolactin levels in drug-naïve patients with schizophrenia and other psychotic disorders. International Journal of Psychiatry in Clinical Practice, 2016, 20, 165-169.	1.2	31
26	Automated Levodopa-induced dyskinesia assessment. , 2010, 2010, 2411-4.		30
27	An automated method for gridding and clustering-based segmentation of cDNA microarray images. Computerized Medical Imaging and Graphics, 2009, 33, 40-49.	3.5	29
28	Continuous Non-Invasive Glucose Monitoring via Contact Lenses: Current Approaches and Future Perspectives. Biosensors, 2021, 11, 189.	2.3	29
29	Real-time quantification of resting tremor in the Parkinson's disease. , 2009, 2009, 1306-9.		28
30	Endothelin-B receptors and ventricular arrhythmogenesis in the rat model of acute myocardial infarction. Basic Research in Cardiology, 2010, 105, 235-245.	2.5	28
31	Quantification of Liver Fibrosis—A Comparative Study. Applied Sciences (Switzerland), 2020, 10, 447.	1.3	27
32	EEG epileptic seizure detection using k-means clustering and marginal spectrum based on ensemble empirical mode decomposition. , 2013, , .		24
33	Effects of dual endothelin receptor blockade on sympathetic activation and arrhythmogenesis during acute myocardial infarction in rats. European Journal of Pharmacology, 2008, 580, 241-249.	1.7	23
34	Segmentation of microarray images using pixel classification—Comparison with clustering-based methods. Computers in Biology and Medicine, 2013, 43, 705-716.	3.9	21
35	Training of Deep Convolutional Neural Networks to Identify Critical Liver Alterations in Histopathology Image Samples. Applied Sciences (Switzerland), 2020, 10, 42.	1.3	20
36	Hybrid extreme learning machine approach for heterogeneous neural networks. Neurocomputing, 2019, 361, 137-150.	3.5	19

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37	Cytokine profile in drug-naïve, first episode patients with psychosis. Journal of Psychosomatic Research, 2015, 79, 324-327.	1.2	18
38	Classification of EEG signals from young adults with dyslexia combining a Brain Computer Interface device and an Interactive Linguistic Software Tool. Biomedical Signal Processing and Control, 2022, 76, 103646.	3.5	18
39	PDoublePop: An implementation of parallel genetic algorithm for function optimization. Computer Physics Communications, 2016, 209, 183-189.	3.0	17
40	A methodology for automated CPA extraction using liver biopsy image analysis and machine learning techniques. Computer Methods and Programs in Biomedicine, 2017, 140, 61-68.	2.6	17
41	A clustering based method for collagen proportional area extraction in liver biopsy images. , 2015, 2015, 3097-100.		16
42	Wavelet Based Classification of Epileptic Seizures in EEG Signals. , 2017, , .		16
43	Denoising simulated EEG signals: A comparative study of EMD, wavelet transform and Kalman filter. , 2013, , .		14
44	Modeling and simulation of speed selection on left ventricular assist devices. Computers in Biology and Medicine, 2014, 51, 128-139.	3.9	13
45	Region Based Segmentation and Classification of Multispectral Chromosome Images. Proceedings of the IEEE Symposium on Computer-Based Medical Systems, 2007, , .	0.0	12
46	Spot addressing for microarray images structured in hexagonal grids. Computer Methods and Programs in Biomedicine, 2012, 106, 1-13.	2.6	12
47	An automatic electroencephalography blinking artefact detection and removal method based on template matching and ensemble empirical mode decomposition. , 2013, 2013, 5853-6.		12
48	IoT Micro-Blockchain Fundamentals. Sensors, 2021, 21, 2784.	2.1	12
49	A Time-Frequency Based Method for the Detection of Epileptic Seizures in EEG Recordings. Proceedings of the IEEE Symposium on Computer-Based Medical Systems, 2007, , .	0.0	11
50	Effects of Pre- and Postconditioning on Arrhythmogenesis in the In Vivo Rat Model. Journal of Cardiovascular Pharmacology and Therapeutics, 2013, 18, 376-385.	1.0	11
51	Elevated levels of Insulin-like Growth Factor-1 (IGF-1) in drug-naïve patients with psychosis. Psychiatry Research, 2016, 246, 348-352.	1.7	11
52	Changes in the cytokine profile in first-episode, drug-naïve patients with psychosis after short-term antipsychotic treatment. Psychiatry Research, 2017, 256, 378-383.	1.7	11
53	Evaluation of window size in classification of epileptic short-term EEG signals using a Brain Computer Interface software. Engineering, Technology & Applied Science Research, 2018, 8, 3093-3097.	0.8	11
54	A classification-based segmentation of cDNA microarray images using Support Vector machines. , 2008, 2008, 875-8.		10

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55	On automated assessment of Levodopa-induced dyskinesia in Parkinson's disease. , 2011, 2011, 2679-82.		10
56	Automated Detection of Liver Histopathological Findings Based on Biopsy Image Processing. Information (Switzerland), 2017, 8, 36.	1.7	10
57	Exercise Training Attenuates the Development of Cardiac Autonomic Dysfunction in Diabetic Rats. In Vivo, 2018, 32, 1433-1441.	0.6	10
58	Direct Assessment of Alcohol Consumption in Mental State Using Brain Computer Interfaces and Grammatical Evolution. Inventions, 2018, 3, 51.	1.3	10
59	Random Forests with Stochastic Induction of Decision Trees. , 2018, , .		9
60	Improving the Accuracy of Low-Cost Sensor Measurements for Freezer Automation. Sensors, 2020, 20, 6389.	2.1	9
61	Automated Collagen Proportional Area Extraction in Liver Biopsy Images Using a Novel Classification via Clustering Algorithm. , 2017, , .		8
62	Expression of Circulating MicroRNAs Linked to Bone Metabolism in Chronic Kidney Disease-Mineral and Bone Disorder. Biomedicines, 2020, 8, 601.	1.4	8
63	A wearable system for long-term ubiquitous monitoring of common motor symptoms in patients with Parkinson's disease. , 2014, , .		7
64	EEG Classification and Short-Term Epilepsy Prognosis Using Brain Computer Interface Software. , 2017, , .		7
65	Hybrid extreme learning machine approach for homogeneous neural networks. Neurocomputing, 2018, 311, 397-412.	3.5	7
66	Sex hormone levels in drug-naÃ¯ve, first-episode patients with psychosis. International Journal of Psychiatry in Clinical Practice, 2020, 24, 20-24.	1.2	7
67	Transfer Learning versus Custom CNN Architectures in NAFLD Biopsy Images. , 2020, , .		7
68	Train RBF networks with a hybrid genetic algorithm. Evolutionary Intelligence, 2023, 16, 375-381.	2.3	7
69	A Gaussian Mixture Model to detect suction events in rotary blood pumps. , 2012, , .		6
70	Improving the PSO method for global optimization problems. Evolving Systems, 2021, 12, 875-883.	2.4	6
71	GenClass: A parallel tool for data classification based on Grammatical Evolution. SoftwareX, 2021, 16, 100830.	1.2	6
72	A generalized methodology for the gridding of microarray images with rectangular or hexagonal grid. Signal, Image and Video Processing, 2016, 10, 719-728.	1.7	5

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73	Gamification in Social Networking: A Platform for People Living with Dementia and their Caregivers. , 2017, , .		5
74	Using the Allen gene expression atlas of the adult mouse brain to gain further insight into the physiological significance of TAG-1/Contactin-2. Brain Structure and Function, 2020, 225, 2045-2056.	1.2	5
75	On Assessing Motor Disorders in Parkinsonâ€™s Disease. Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering, 2011, , 35-38.	0.2	5
76	A Review of Automated Methodologies for the Detection of Epileptic Episodes Using Long-Term EEG Signals. Advances in Medical Diagnosis, Treatment, and Care, 2016, , 231-261.	0.1	5
77	Modifications for the Differential Evolution Algorithm. Symmetry, 2022, 14, 447.	1.1	5
78	A decision support tool for optimal Levodopa administration in Parkinson's disease. , 2010, , .		4
79	Designing a gamified social platform for people living with dementia and their live-in family caregivers. , 2018, , .		4
80	Deep Learning in Liver Biopsies using Convolutional Neural Networks. , 2019, , .		4
81	Utilization of the allen gene expression atlas to gain further insight into glucocorticoid physiology in the adult mouse brain. Neuroscience Letters, 2019, 706, 194-200.	1.0	4
82	Automated Assessment of Pain Intensity Based on EEG Signal Analysis. , 2019, , .		4
83	Evolutionary Based Weight Decaying Method for Neural Network Training. Neural Processing Letters, 2018, 47, 463.	2.0	4
84	Automatic Hemiplegia Type Detection (Right or Left) Using the Levenberg-Marquardt Backpropagation Method. Information (Switzerland), 2022, 13, 101.	1.7	4
85	Multichannel Segmentation of cDNA Microarray Images using the Bayes Classifier. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2007, 2007, 3466-9.	0.5	3
86	Automated knowledge-based fuzzy models generation for weaning of patients receiving Ventricular Assist Device (VAD) therapy. , 2012, 2012, 2206-9.		3
87	Adverse event prediction in patients with left ventricular assist devices. , 2013, 2013, 1314-7.		3
88	Classification of EEG signals using feature creation produced by grammatical evolution. , 2016, , .		3
89	Measuring Steatosis in Liver Biopsies Using Machine Learning and Morphological Imaging. , 2017, , .		3
90	Ensemble Convolutional Neural Network Classification for Pancreatic Steatosis Assessment in Biopsy Images. Information (Switzerland), 2022, 13, 160.	1.7	3

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91	Heterogeneous hybrid extreme learning machine for temperature sensor accuracy improvement. Expert Systems With Applications, 2022, 203, 117488.	4.4	3
92	A treatment decision support system for patients receiving Ventricular Assist Device (VAD) therapy. , 2012, , .		2
93	Image Enhancement of Routine Biopsies: A Case for Liver Tissue Detection. , 2017, , .		2
94	NNC: A tool based on Grammatical Evolution for data classification and differential equation solving. SoftwareX, 2019, 10, 100297.	1.2	2
95	Circulating microRNAs Related to Bone Metabolism in HIV-Associated Bone Loss. Biomedicines, 2021, 9, 443.	1.4	2
96	Modelling Hydrocortisone Pharmacokinetics on a Subcutaneous Pulsatile Infusion Replacement Strategy in Patients with Adrenocortical Insufficiency. Pharmaceutics, 2021, 13, 769.	2.0	2
97	An evolutionary algorithm-based optimization method for the classification and quantification of steatosis prevalence in liver biopsy images. Array, 2021, 11, 100078.	2.5	2
98	Beliefs about Medicines Questionnaire (BMQ) in inflammatory bowel disease patients in Greece. Î™s this useful?. European Journal for Person Centered Healthcare, 2016, 4, 187.	0.3	2
99	A Hospital Healthcare Monitoring System Using Internet of Things Technologies. , 2021, , .		2
100	Active touch classification using EEG signals. , 2021, , .		2
101	A Two-Phase Evolutionary Method to Train RBF Networks. Applied Sciences (Switzerland), 2022, 12, 2439.	1.3	2
102	Automated Hepatic Steatosis Assessment through Liver Biopsy Image Processing. , 2016, , .		1
103	Protein Structure Recognition by Means of Sequential Pattern Mining. , 2017, , .		1
104	Lipofuscin is detected in early stages of the disease in liver biopsies of patients with Non-Alcoholic Fatty Liver Disease. Journal of Hepatology, 2018, 68, S819.	1.8	1
105	Fat Droplets Identification in Liver Biopsies using Supervised Learning Techniques. , 2018, , .		1
106	Optimum Capacity over Power Consumption Requirements in MIMO Systems. , 2019, , .		1
107	A novel classification via clustering algorithm for fibrosis assessment in liver biopsies. Health and Technology, 2020, 10, 777-785.	2.1	1
108	A Novel Sampling Technique for Multistart-Based Methods. SN Computer Science, 2021, 2, 1.	2.3	1

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109	THE CONTRIBUTION OF EEG RECORDINGS TO THE AUDIOVISUAL RECOGNITION OF WORDS IN UNIVERSITY STUDENTS WITH DYSLEXIA. , 2021, , .		1
110	Epileptic Spike Detection Using a Kalman Filter Based Approach. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2006, , .	0.5	1
111	A Traffic Load-based Algorithm for Extending the Lifetime of Wireless Sensor Networks. , 2021, , .		1
112	An Improved Controlled Random Search Method. Symmetry, 2021, 13, 1981.	1.1	1
113	An Automated Method for Levodopa-Induced Dyskinesia Detection and Severity Classification. IFMBE Proceedings, 2010, , 592-595.	0.2	1
114	Fetal Heart Beat detection based on Empirical Mode Decomposition, Signal Quality Indices and Correlation Analysis. , 2020, , .		1
115	Motor data analysis of Parkinsonâ€™s disease patients. , 2020, , .		1
116	Chronic skeletal muscle ischemia in rats decreases the inducibility of ventricular tachyarrhythmias after myocardial infarction. In Vivo, 2011, 25, 781-6.	0.6	1
117	Scalable Consensus Over Finite Capacities in Multiagent IoT Ecosystems. IEEE Internet of Things Journal, 2023, 10, 6673-6688.	5.5	1
118	PERFORM: First steps in the assessment of patient motion status and support to treatment changes. , 2009, , .		0
119	Data analysis of Genome-Wide Association studies (GWAS) concerning rheumatoid arthritis and multiple sclerosis. , 2010, , .		0
120	Knowledge editor and execution engine development for optimal ventricular assist device weaning. , 2012, 2012, 1262-5.		0
121	NeuralGenesis: A software for distributed neural network training. , 2016, , .		0
122	Development and validation of an automated system for assessment of liver steatosis and fibrosis in routine histological images in patients with Non-Alcoholic Fatty Liver Disease. Journal of Hepatology, 2017, 66, S589-S590.	1.8	0
123	The severity of steatosis does not influence liver stiffness measurements in patients with Non-Alcoholic Fatty Liver Disease. Journal of Hepatology, 2017, 66, S586-S587.	1.8	0
124	PWE-093â€¦Development and validation of an automated system for assessment of liver steatosis and fibrosis in routine: histological images in patients with non-alcoholic fatty liver disease. , 2017, , .		0
125	AB0411â€¦Comparison of tuberculin skin test and interferon-gamma release assay screening in patients with rheumatoid arthritis starting anti-tumor necrosis factor therapy. , 2017, , .		0
126	PWE-094â€¦The severity of steatosis does not influence liver stiffness measurements in patients with non-alcoholic fatty liver disease. , 2017, , .		0

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127	A mobile application for the management and follow-up of patients with Non-Alcoholic Fatty Liver Disease. Journal of Hepatology, 2018, 68, S819.	1.8	0
128	THU-331-Derivation and validation of a cardiovascular risk score for prediction of major acute cardiovascular events in non-alcoholic fatty liver disease: The importance of an elevated mean platelet volume. Journal of Hepatology, 2019, 70, e305.	1.8	0
129	SAT-294-Automated quantitation of steatosis, inflammation, ballooning and fibrosis using machine learning in routine histological images of liver biopsies of patients with NAFLD. Journal of Hepatology, 2019, 70, e767-e768.	1.8	0
130	Self-Adaptive Hybrid Extreme Learning Machine for Heterogeneous Neural Networks. , 2020, , .		0
131	Stopping rules for a parallel genetic algorithm. International Journal of Computational Intelligence Studies, 2020, 9, 146.	0.3	0
132	A Lifetime Extension Framework for Wireless Sensor Networks. , 2020, , .		0
133	Locate the Bounding Box of Neural Networks with Intervals. Neural Processing Letters, 2020, 52, 2241-2251.	2.0	0
134	First Impression of Greek University Students on Taking Massive e-Exams due to COVID-19 Pandemic. Biology Engineering Medicine and Science Reports, 2021, 7, 11-12.	0.5	0
135	Automatic Parkinson's tremor assessment with data analysis from daily activities. , 2021, , .		0
136	Neural Network-Based approach for Hemiplegia Detection via Accelerometer Signals. , 2021, , .		0
137	Effects of Exercise in Diabetic Rats Using Continuous Wavelet Transform. Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering, 2013, , 41-49.	0.2	0
138	Associations of 25-hydroxyvitamin D with major components of metabolic syndrome in children. Bone Abstracts, 0, , .	0.0	0
139	OneAppy: An Interactive Platform Providing Novel Marketing Channels and Promoting Product and Services to the Tourism Industry. Springer Proceedings in Business and Economics, 2019, , 559-568.	0.3	0
140	Genetic Feature Construction Genetic Feature Construction: a parallel implementation of a genetic programming tool for feature construction. European Journal of Engineering Research and Science, 2019, 4, 5-11.	0.3	0
141	Stopping rules for a parallel genetic algorithm. International Journal of Computational Intelligence Studies, 2020, 9, 146.	0.3	0
142	A Traffic-Load-Based Algorithm for Wireless Sensor Networksâ€™ Lifetime Extension. Information (Switzerland), 2022, 13, 202.	1.7	0
143	An Automated Method for Gridding in Microarray Images. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2006, , .	0.5	0
144	Genetic Feature Construction: a parallel implementation of a genetic programming tool for feature construction. European Journal of Education and Pedagogy, 2019, 4, 5-11.	0.2	0

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145	RbfDeSolver: A Software Tool to Approximate Differential Equations Using Radial Basis Functions. Axioms, 2022, 11, 294.	0.9	0