

Manuel Roveri

List of Publications by Year in descending order

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89
papers

2,510
citations

430843

18
h-index

243610

44
g-index

93
all docs

93
docs citations

93
times ranked

2218
citing authors

#	ARTICLE	IF	CITATIONS
1	Learning in Nonstationary Environments: A Survey. IEEE Computational Intelligence Magazine, 2015, 10, 12-25.	3.2	519
2	A Robust, Adaptive, Solar-Powered WSN Framework for Aquatic Environmental Monitoring. IEEE Sensors Journal, 2011, 11, 45-55.	4.7	215
3	Energy management in wireless sensor networks with energy-hungry sensors. IEEE Instrumentation and Measurement Magazine, 2009, 12, 16-23.	1.6	166
4	An Adaptive Sampling Algorithm for Effective Energy Management in Wireless Sensor Networks With Energy-Hungry Sensors. IEEE Transactions on Instrumentation and Measurement, 2010, 59, 335-344.	4.7	134
5	Just-In-Time Classifiers for Recurrent Concepts. IEEE Transactions on Neural Networks and Learning Systems, 2013, 24, 620-634.	11.3	123
6	Just-in-Time Adaptive Classifiersâ€™Part I: Detecting Nonstationary Changes. IEEE Transactions on Neural Networks, 2008, 19, 1145-1153.	4.2	122
7	Moving Convolutional Neural Networks to Embedded Systems: The AlexNet and VGG-16 Case. , 2018, , .		87
8	Adaptive Sampling for Energy Conservation in Wireless Sensor Networks for Snow Monitoring Applications. , 2007, , .		73
9	Just-in-Time Adaptive Classifiersâ€™Part II: Designing the Classifier. IEEE Transactions on Neural Networks, 2008, 19, 2053-2064.	4.2	71
10	Hierarchical Change-Detection Tests. IEEE Transactions on Neural Networks and Learning Systems, 2017, 28, 246-258.	11.3	66
11	Model-Free Fault Detection and Isolation in Large-Scale Cyber-Physical Systems. IEEE Transactions on Emerging Topics in Computational Intelligence, 2017, 1, 61-71.	4.9	56
12	A Cognitive Fault Diagnosis System for Distributed Sensor Networks. IEEE Transactions on Neural Networks and Learning Systems, 2013, 24, 1213-1226.	11.3	55
13	A just-in-time adaptive classification system based on the intersection of confidence intervals rule. Neural Networks, 2011, 24, 791-800.	5.9	51
14	A Cloud to the Ground: The New Frontier of Intelligent and Autonomous Networks of Things. , 2016, 54, 14-20.		42
15	<i>RTI Goes Wild</i>; Radio Tomographic Imaging for Outdoor People Detection and Localization. IEEE Transactions on Mobile Computing, 2016, 15, 2585-2598.	5.8	42
16	Change detection tests using the ICI rule. , 2010, , .		32
17	Incremental On-Device Tiny Machine Learning. , 2020, , .		28
18	A hierarchical, nonparametric, sequential change-detection test. , 2011, , .		27

#	ARTICLE	IF	CITATIONS
19	A Self-Building and Cluster-Based Cognitive Fault Diagnosis System for Sensor Networks. IEEE Transactions on Neural Networks and Learning Systems, 2014, 25, 1021-1032.	11.3	26
20	Distributed Deep Convolutional Neural Networks for the Internet-of-Things. IEEE Transactions on Computers, 2021, 70, 1239-1252.	3.4	24
21	Database Challenges for Exploratory Computing. SIGMOD Record, 2015, 44, 17-22.	1.2	24
22	An hybrid wireless-wired monitoring system for real-time rock collapse forecasting. , 2010, , .		22
23	The (Not) Far-Away Path to Smart Cyber-Physical Systems: An Information-Centric Framework. Computer, 2017, 50, 38-47.	1.1	22
24	Virtual k-fold cross validation: An effective method for accuracy assessment. , 2010, , .		19
25	A high-frequency sampling monitoring system for environmental and structural applications. ACM Transactions on Sensor Networks, 2013, 9, 1-32.	3.6	19
26	Intelligent Cyber-Physical Systems for Industry 4.0. , 2018, , .		19
27	An energy harvesting solution for computation offloading in Fog Computing networks. Computer Communications, 2020, 160, 577-587.	5.1	19
28	An Adaptive LLC-Based and Hierarchical Power-Aware Routing Algorithm. IEEE Transactions on Instrumentation and Measurement, 2009, 58, 3347-3357.	4.7	18
29	Exploiting self-similarity for change detection. , 2014, , .		17
30	An effective just-in-time adaptive classifier for gradual concept drifts. , 2011, , .		15
31	An HMM-based change detection method for intelligent embedded sensors. , 2012, , .		15
32	False Data Detection for Fog and Internet of Things Networks. Sensors, 2019, 19, 4235.	3.8	14
33	Leak detection and localization in water distribution networks by combining expert knowledge and data-driven models. Neural Computing and Applications, 2022, 34, 4759-4779.	5.6	14
34	Detecting External Disturbances on the Camera Lens in Wireless Multimedia Sensor Networks. IEEE Transactions on Instrumentation and Measurement, 2010, 59, 2982-2990.	4.7	13
35	On-line reconstruction of missing data in sensor/actuator networks by exploiting temporal and spatial redundancy. , 2012, , .		13
36	Learning Convolutional Neural Networks in presence of Concept Drift. , 2019, , .		13

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37	Effective design of WSNs: From the lab to the real world. , 2008, , .		12
38	Ensembles of change-point methods to estimate the change point in residual sequences. Soft Computing, 2013, 17, 1971-1981.	3.6	11
39	Learning Discrete-Time Markov Chains Under Concept Drift. IEEE Transactions on Neural Networks and Learning Systems, 2019, 30, 2570-2582.	11.3	11
40	Just-in-time ensemble of classifiers. , 2012, , .		10
41	Model- vs. data-based approaches applied to fault diagnosis in potable water supply networks. Journal of Hydroinformatics, 2016, 18, 831-850.	2.4	10
42	INDIANA: An interactive system for assisting database exploration. Information Systems, 2019, 83, 40-56.	3.6	10
43	Model ensemble for an effective on-line reconstruction of missing data in sensor networks. , 2013, , .		9
44	Detecting changes at the sensor level in cyber-physical systems: Methodology and technological implementation. , 2017, , .		9
45	A Cognitive Monitoring System for Detecting and Isolating Contaminants and Faults in Intelligent Buildings. IEEE Transactions on Systems, Man, and Cybernetics: Systems, 2018, 48, 433-447.	9.3	9
46	Birdsong Detection at the Edge with Deep Learning. , 2021, , .		9
47	A cognitive monitoring system for contaminant detection in intelligent buildings. , 2014, , .		8
48	An incremental learning mechanism for human activity recognition. , 2016, , .		8
49	An Ensemble Approach for Cognitive Fault Detection and Isolation in Sensor Networks. International Journal of Neural Systems, 2017, 27, 1650047.	5.2	8
50	Reducing the Computation Load of Convolutional Neural Networks through Gate Classification. , 2018, , .		8
51	Just-in-Time Adaptive Algorithm for Optimal Parameter Setting in 802.15.4 WSNs. ACM Transactions on Autonomous and Adaptive Systems, 2016, 10, 1-26.	0.8	8
52	A lightweight and energy-efficient Internet-of-birds tracking system. , 2017, , .		7
53	Adaptive Federated Learning in Presence of Concept Drift. , 2021, , .		7
54	Learning in Nonstationary Environments: A Hybrid Approach. Lecture Notes in Computer Science, 2017, , 703-714.	1.3	7

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55	A transfer-learning approach for corrosion prediction in pipeline infrastructures. Applied Intelligence, 2022, 52, 7622-7637.	5.3	7
56	Netbrick: A high-performance, low-power hardware platform for wireless and hybrid sensor networks. , 2012, , .		6
57	A Reprogrammable and Intelligent Monitoring System for Rock-Collapse Forecasting. IEEE Systems Journal, 2016, 10, 733-744.	4.6	6
58	Adaptive Classifiers with ICI-Based Adaptive Knowledge Base Management. Lecture Notes in Computer Science, 2010, , 458-467.	1.3	6
59	Towards a credible WSNs deployment: a monitoring framework based on an adaptive communication protocol and energy-harvesting availability. , 2008, , .		5
60	A reconfigurable and element-wise ICI-based change-detection test for streaming data. , 2014, , .		5
61	A Privacy-Preserving Distributed Architecture for Deep-Learning-as-a-Service. , 2020, , .		5
62	Genetic Techniques for Pattern Extraction in Particle Boards Images. , 2006, , .		4
63	An ensemble approach to estimate the fault-time instant. , 2013, , .		4
64	A learning-based algorithm for optimal mac parameters setting in IEEE 802.15.4 wireless sensor networks. , 2013, , .		4
65	Online model-free sensor fault identification and dictionary learning in Cyber-Physical Systems. , 2016, , .		4
66	Prototyping and Metrological Characterization of a Data Acquisition and Processing System Based on Edge Computing. , 2020, , .		4
67	A Hierarchy of Change-Point Methods for Estimating the Time Instant of Leakages in Water Distribution Networks. IFIP Advances in Information and Communication Technology, 2013, , 615-624.	0.7	4
68	Guest Editorial: Computational Intelligence for Human-in-the-Loop Cyber Physical Systems. IEEE Transactions on Emerging Topics in Computational Intelligence, 2022, 6, 2-5.	4.9	4
69	Detecting drops on lens in wireless multimedia sensor network nodes. , 2009, , .		3
70	Learning causal dependencies to detect and diagnose faults in sensor networks. , 2014, , .		3
71	Reducing Computational Complexity in k-NN based Adaptive Classifiers. , 2007, , .		2
72	A step towards the prediction of a rock collapse: analysis of micro-acoustic bursts. , 2011, , .		2

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73	A spectrum-based adaptive sampling algorithm for smart sensing. , 2017, , .		2
74	Corrosion Prediction in Oil and Gas Pipelines: a Machine Learning Approach. , 2020, , .		2
75	Sensors and Wireless Sensor Networks as Data Sources: Models and Languages. Data-centric Systems and Applications, 2015, , 69-92.	0.2	2
76	An Ensemble of HMMs for Cognitive Fault Detection in Distributed Sensor Networks. Lecture Notes in Computer Science, 2014, , 90-100.	1.3	2
77	A Distributed Self-adaptive Nonparametric Change-Detection Test for Sensor/Actuator Networks. Lecture Notes in Computer Science, 2011, , 173-180.	1.3	2
78	Computational intelligence techniques to detect toxic gas presence. , 2006, , .		1
79	Identifying network failure via detecting changes in power profile. , 2012, , .		1
80	Making Intelligent the Embedded Systems Through Cognitive Outlier and Fault Detection. Smart Innovation, Systems and Technologies, 2016, , 381-390.	0.6	1
81	Designing HMMs in the Age of Big Data. Advances in Intelligent Systems and Computing, 2017, , 120-130.	0.6	1
82	An Improved Hilbert-Huang Transform for Non-linear and Time-Variant Signals. Smart Innovation, Systems and Technologies, 2018, , 109-117.	0.6	1
83	Capacity Planning of Fog Computing Infrastructures for Smart Monitoring. Communications in Computer and Information Science, 2018, , 72-81.	0.5	1
84	A Machine-Learning Approach for the Prediction of Internal Corrosion in Pipeline Infrastructures. , 2021, , .		1
85	Guest Editorial Special Issue on Recent Advances in Theory, Methodology, and Applications of Imbalanced Learning. IEEE Transactions on Neural Networks and Learning Systems, 2020, 31, 2688-2690.	11.3	1
86	A Hierarchical LLC Routing Algorithm for WSNs. , 2007, , .		0
87	A virtual machine for energy management in WSNs. , 2009, , .		0
88	Algorithms and Tools for Intelligent Monitoring of Critical Infrastructure Systems. Studies in Computational Intelligence, 2015, , 167-184.	0.9	0
89	A CPM-Based Change Detection Test for Big Data. Advances in Intelligent Systems and Computing, 2017, , 100-110.	0.6	0