BelÃ©n Carro

List of Publications by Year
in descending order

73 papers	3,088 citations	218677 26 h-index	189892 50 g-index
78 all docs	78 docs citations	78 times ranked	3064 citing authors

#	Article	IF	Citations
1	Network Traffic Classifier With Convolutional and Recurrent Neural Networks for Internet of Things. IEEE Access, 2017, 5, 18042-18050.	4.2	487
2	A Survey on Electric Power Demand Forecasting: Future Trends in Smart Grids, Microgrids and Smart Buildings. IEEE Communications Surveys and Tutorials, 2014, 16, 1460-1495.	39.4	387
3	Conditional Variational Autoencoder for Prediction and Feature Recovery Applied to Intrusion Detection in IoT. Sensors, 2017, 17, 1967.	3.8	189
4	Application of deep reinforcement learning to intrusion detection for supervised problems. Expert Systems With Applications, 2020, 141, 112963.	7.6	184
5	A multi-agent system architecture for smart grid management and forecasting of energy demand in virtual power plants. , 2013, 51, 106-113.		172
6	Artificial neural networks for short-term load forecasting in microgrids environment. Energy, 2014, 75, 252-264.	8.8	170
7	A Study of the Relationship between Weather Variables and Electric Power Demand inside a Smart Grid/Smart World Framework. Sensors, 2012, 12, 11571-11591.	3.8	139
8	Adversarial environment reinforcement learning algorithm for intrusion detection. Computer Networks, 2019, 159, 96-109.	5.1	131
9	Short-Term Load Forecasting for Microgrids Based on Artificial Neural Networks. Energies, 2013, 6, 1385-1408.	3.1	121
10	Classification and Clustering of Electricity Demand Patterns in Industrial Parks. Energies, 2012, 5, 5215-5228.	3.1	92
11	Artificial Neural Network for Short-Term Load Forecasting in Distribution Systems. Energies, 2014, 7, 1576-1598.	3.1	86
12	Intelligent IoT Traffic Classification Using Novel Search Strategy for Fast-Based-Correlation Feature Selection in Industrial Environments. IEEE Internet of Things Journal, 2018, 5, 1616-1624.	8.7	58
13	Shallow neural network with kernel approximation for prediction problems in highly demanding data networks. Expert Systems With Applications, 2019, 124, 196-208.	7.6	50
14	A Semantic Autonomous Video Surveillance System for Dense Camera Networks in Smart Cities. Sensors, 2012, 12, 10407-10429.	3.8	48
15	Ensemble network traffic classification: Algorithm comparison and novel ensemble scheme proposal. Computer Networks, 2017, 127, 68-80.	5.1	44
16	Supervised contrastive learning over prototype-label embeddings for network intrusion detection. Information Fusion, 2022, 79, 200-228.	19.1	43
17	Deep Learning Model for Multimedia Quality of Experience Prediction Based on Network Flow Packets. IEEE Communications Magazine, 2018, 56, 110-117.	6.1	38
18	Neural network architecture based on gradient boosting for IoT traffic prediction. Future Generation Computer Systems, 2019, 100, 656-673.	7.5	38

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19	Exploratory study on Class Imbalance and solutions for Network Traffic Classification. Neurocomputing, 2019, 343, 100-119.	5.9	36
20	Improved Short-Term Load Forecasting Based on Two-Stage Predictions with Artificial Neural Networks in a Microgrid Environment. Energies, 2013, 6, 4489-4507.	3.1	35
21	Detection of early stages of Alzheimer's disease based on MEG activity with a randomized convolutional neural network. Artificial Intelligence in Medicine, 2020, 107, 101924.	6.5	34
22	Experimental Analysis of the Input Variables' Relevance to Forecast Next Day's Aggregated Electric Demand Using Neural Networks. Energies, 2013, 6, 2927-2948.	3.1	31
23	IoT type-of-traffic forecasting method based on gradient boosting neural networks. Future Generation Computer Systems, 2020, 105, 331-345.	7.5	31
24	Temperature and Relative Humidity Estimation and Prediction in the Tobacco Drying Process Using Artificial Neural Networks. Sensors, 2012, 12, 14004-14021.	3.8	30
25	Framework for intelligent service adaptation to user's context in next generation networks. , 2012, 50, 18-25.		30
26	Network Intrusion Detection Based on Extended RBF Neural Network With Offline Reinforcement Learning. IEEE Access, 2021, 9, 153153-153170.	4.2	30
27	An Intelligent Surveillance Platform for Large Metropolitan Areas with Dense Sensor Deployment. Sensors, 2013, 13, 7414-7442.	3.8	29
28	Variational data generative model for intrusion detection. Knowledge and Information Systems, 2019, 60, 569-590.	3.2	28
29	A predictive hybrid reduced order model based on proper orthogonal decomposition combined with deep learning architectures. Expert Systems With Applications, 2022, 187, 115910.	7.6	25
30	Performance Study of the Application of Artificial Neural Networks to the Completion and Prediction of Data Retrieved by Underwater Sensors. Sensors, 2012, 12, 1468-1481.	3.8	22
31	Network intrusion detection with a novel hierarchy of distances between embeddings of hash IP addresses. Knowledge-Based Systems, 2021, 219, 106887.	7.1	19
32	A user-centric service creation approach for Next Generation Networks. , 2008, , .		18
33	The role of metaphors in the development of technologies. The case of the artificial intelligence. Futures, 2016, 84, 145-153.	2.5	18
34	Model-free short-term fluid dynamics estimator with a deep 3D-convolutional neural network. Expert Systems With Applications, 2021, 177, 114924.	7.6	18
35	From data analysis to storytelling in scenario building. A semiotic approach to purpose-dependent writing of stories. Futures, 2017, 88, 15-29.	2.5	17
36	Additive Ensemble Neural Network with Constrained Weighted Quantile Loss for Probabilistic Electric-Load Forecasting. Sensors, 2021, 21, 2979.	3.8	14

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37	Novel Data-Driven Models Applied to Short-Term Electric Load Forecasting. Applied Sciences (Switzerland), 2021, 11, 5708.	2.5	14
38	Assessing emerging issues. The external and internal approach. Futures, 2015, 73, 12-21.	2.5	13
39	Telco services for end customers: European Perspective. , 2008, 46, 14-18.		11
40	OPUCE: A telco-driven service mash-up approach. Bell Labs Technical Journal, 2009, 14, 203-218.	0.7	11
41	Integrating User-Generated Content and Pervasive Communications. IEEE Pervasive Computing, 2008, 7, 58-61.	1.3	10
42	Easing the assessment of emerging technologies in technology observatories. Findings about patterns of dissemination of emerging technologies on the internet. Technology Analysis and Strategic Management, 2018, 30, 113-129.	3.5	8
43	Telco services for end customers within Spanish programmes. , 2008, 46, 24-28.		5
44	Location-Aware Computing, Virtual Networks. IEEE Pervasive Computing, 2009, 8, 28-32.	1.3	5
45	IMS: The New Generation of Internet-Protocol-Based Multimedia Services. Proceedings of the IEEE, 2013, 101, 1860-1881.	21.3	5
46	IPv6 networks over DVB-RCS satellite systems. International Journal of Satellite Communications and Networking, 2008, 26, 45-56.	1.8	4
47	Telecommunication solutions for European leadership in telecommunications [Very Large Projects]. IEEE Communications Magazine, 2009, 47, 18-20.	6.1	4
48	User-driven context aware creation and execution of home care applications. Annales Des Telecommunications/Annals of Telecommunications, 2010, 65, 545-556.	2.5	4
49	Management of service sessions in an NGN-SOA execution environment [Next-Generation Telco IT Architectures. , 2010, 48, 103-109.		4
50	Automatic UMTS system resource dimensioning based on service traffic analysis. Eurasip Journal on Wireless Communications and Networking, 2012, 2012, .	2.4	4
51	Innovative DAMA algorithm for multimedia DVB-RCS system. Eurasip Journal on Wireless Communications and Networking, 2013, 2013, .	2.4	4
52	Improving teaching in engineering education: adjunct enterprise professors programme. Journal of Intelligent Manufacturing, 2013, 24, 495-499.	7.3	4
53	Link-level effect of a noisy channel over data transmission on the return path of an HFC network. , 0, , .		3
54	Scalable Architecture and Evaluation for Multiparty Conferencing Over Satellite Links. IEEE Journal on Selected Areas in Communications, 2004, 22, 594-605.	14.0	3

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55	Future information and communication technologies [Very Large Projects. , 2009, 47, 14-19.		3
56	User-oriented environment for management of convergent services. , 2012, 50, 142-149.		3
57	Voice over IP over satellite links. , 0, , .		2
58	Multimedia Conference Services. , 2002, , .		2
59	Applications and support technologies for mobility and enterprise services [Guest Editorial. IEEE Wireless Communications, 2009, 16, 6-7.	9.0	2
60	Deployment of contextual corporate telco services based on protocol adaptation in the NGN environment. , 2010, 48, 34-40.		2
61	Future convergent telecommunications services: creation, context, P2P, QoS, and charging [Guest Editorial]. , 2011, 49, 58-59.		2
62	An internetworking proposal for industrial estates: HFC networks as access solution for SMEs. , 0, , .		1
63	A Method for the Detection of QoS Degradation in UMTS Networks. , 2012, , .		1
64	Telecommunications technologies for energy efficiency supported by future networks. , 2012, 50, 12-15.		1
65	Intelligent context retrieval and management for services in the Internet of Things. International Journal of Ad Hoc and Ubiquitous Computing, 2013, 13, 218.	0.5	1
66	Adjunct Enterprise Professors in the European Higher Education Area. , 2010, , .		0
67	Convergence2.0 on end user services based on telco hosted context processing. , 2011, , .		0
68	Platform for ubiquitous mobile service composition, management and delivery. , 2011, , .		0
69	SARS-CoV-2 mechanisms of action and impact on human organism, risk factors and potential treatments. An exhaustive survey. International Journal of Transgender Health, 2021, 14, 894-947.	2.3	0
70	Overview of the SATSIX Trials. , 2008, , 271-285.		0
71	User-centric Service Creation and Execution. , 2009, , 273-298.		0
72	Learning on the Move in the Web 2.0. Advances in Human and Social Aspects of Technology Book Series, 0, , 437-458.	0.3	0

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73	Learning on the Move in the Web 2.0. , 0, , 1693-1714.		0