

Raquel Barco

List of Publications by Year in descending order

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121
papers

2,273
citations

279798

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41
g-index

121
all docs

121
docs citations

121
times ranked

1488
citing authors

#	ARTICLE	IF	CITATIONS
1	Automated Diagnosis for UMTS Networks Using Bayesian Network Approach. IEEE Transactions on Vehicular Technology, 2008, 57, 2451-2461.	6.3	203
2	On the Potential of Handover Parameter Optimization for Self-Organizing Networks. IEEE Transactions on Vehicular Technology, 2013, 62, 1895-1905.	6.3	140
3	Fuzzy Rule-Based Reinforcement Learning for Load Balancing Techniques in Enterprise LTE Femtocells. IEEE Transactions on Vehicular Technology, 2013, 62, 1962-1973.	6.3	110
4	System for automated diagnosis in cellular networks based on performance indicators. European Transactions on Telecommunications, 2005, 16, 399-409.	1.2	104
5	Optimization of load balancing using fuzzy Q-Learning for next generation wireless networks. Expert Systems With Applications, 2013, 40, 984-994.	7.6	104
6	Knowledge acquisition for diagnosis model in wireless networks. Expert Systems With Applications, 2009, 36, 4745-4752.	7.6	79
7	The Campus as a Smart City: University of MÃ¡laga Environmental, Learning, and Research Approaches. Sensors, 2019, 19, 1349.	3.8	74
8	Automatic Root Cause Analysis for LTE Networks Based on Unsupervised Techniques. IEEE Transactions on Vehicular Technology, 2016, 65, 2369-2386.	6.3	73
9	A unified framework for self-healing in wireless networks. , 2012, 50, 134-142.		68
10	Load balancing and handover joint optimization in LTE networks using Fuzzy Logic and Reinforcement Learning. Computer Networks, 2015, 76, 112-125.	5.1	46
11	Management architecture for location-aware self-organizing LTE/LTE-a small cell networks. , 2015, 53, 294-302.		44
12	A Low-Complexity Vision-Based System for Real-Time Traffic Monitoring. IEEE Transactions on Intelligent Transportation Systems, 2017, 18, 1279-1288.	8.0	42
13	Self-Healing Framework for Next-Generation Networks through Dimensionality Reduction. IEEE Communications Magazine, 2018, 56, 170-176.	6.1	42
14	Optimization of 5G Networks for Smart Logistics. Energies, 2021, 14, 1758.	3.1	37
15	Cell Outage Detection Based on Handover Statistics. IEEE Communications Letters, 2015, 19, 1189-1192.	4.1	35
16	Methodology for the Design and Evaluation of Self-Healing LTE Networks. IEEE Transactions on Vehicular Technology, 2016, 65, 6468-6486.	6.3	35
17	Self-healing in mobile networks with big data. IEEE Communications Magazine, 2016, 54, 114-120.	6.1	35
18	Mobility-based strategies for traffic steering in heterogeneous networks. , 2013, 51, 54-62.		32

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19	Data mining for fuzzy diagnosis systems in LTE networks. Expert Systems With Applications, 2015, 42, 7549-7559.	7.6	30
20	Computationally-Efficient Design of a Dynamic System-Level LTE Simulator. International Journal of Electronics and Telecommunications, 2011, 57, 347-358.	0.5	27
21	Optimization of a Fuzzy Logic Controller for Handover-Based Load Balancing. , 2011, , .		26
22	Diagnosis Based on Genetic Fuzzy Algorithms for LTE Self-Healing. IEEE Transactions on Vehicular Technology, 2016, 65, 1639-1651.	6.3	26
23	Automatic diagnosis of mobile communication networks under imprecise parameters. Expert Systems With Applications, 2009, 36, 489-500.	7.6	25
24	Learning of model parameters for fault diagnosis in wireless networks. Wireless Networks, 2010, 16, 255-271.	3.0	25
25	Conflict Resolution Between Load Balancing and Handover Optimization in LTE Networks. IEEE Communications Letters, 2014, 18, 1795-1798.	4.1	25
26	Measuring Key Quality Indicators in Cloud Gaming: Framework and Assessment Over Wireless Networks. Sensors, 2021, 21, 1387.	3.8	25
27	Continuous versus Discrete Model in Autodiagnosis Systems for Wireless Networks. IEEE Transactions on Mobile Computing, 2008, 7, 673-681.	5.8	24
28	Enhancing RFID indoor localization with cellular technologies. Eurasip Journal on Wireless Communications and Networking, 2015, 2015, .	2.4	24
29	Automated troubleshooting of a mobile communication network using Bayesian networks. , 0, , .		23
30	Load Balancing in a Realistic Urban Scenario for LTE Networks. , 2011, , .		22
31	Data Analytics for Diagnosing the RF Condition in Self-Organizing Networks. IEEE Transactions on Mobile Computing, 2017, 16, 1587-1600.	5.8	21
32	Smart Cities via Data Aggregation. Wireless Personal Communications, 2014, 76, 149-168.	2.7	20
33	Modeling of Key Quality Indicators for End-to-End Network Management: Preparing for 5G. IEEE Vehicular Technology Magazine, 2019, 14, 76-84.	3.4	20
34	Contextualized indicators for online failure diagnosis in cellular networks. Computer Networks, 2015, 82, 96-113.	5.1	19
35	Correlation-Based Time-Series Analysis for Cell Degradation Detection in SON. IEEE Communications Letters, 2016, 20, 396-399.	4.1	19
36	Context-Aware Self-Healing: User Equipment as the Main Source of Information for Small-Cell Indoor Networks. IEEE Vehicular Technology Magazine, 2016, 11, 76-85.	3.4	19

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37	Root Cause Analysis Based on Temporal Analysis of Metrics Toward Self-Organizing 5G Networks. IEEE Transactions on Vehicular Technology, 2017, 66, 2811-2824.	6.3	19
38	Location-Based Analytics in 5G and Beyond. IEEE Communications Magazine, 2021, 59, 38-43.	6.1	19
39	WiFi FTM, UWB and Cellular-Based Radio Fusion for Indoor Positioning. Sensors, 2021, 21, 7020.	3.8	19
40	Context-Aware Self-Optimization: Evolution Based on the Use Case of Load Balancing in Small-Cell Networks. IEEE Vehicular Technology Magazine, 2016, 11, 86-95.	3.4	17
41	Adaptive Cell Outage Compensation in Self-Organizing Networks. IEEE Transactions on Vehicular Technology, 2018, 67, 5231-5244.	6.3	17
42	Applying Social Event Data for the Management of Cellular Networks. IEEE Communications Magazine, 2018, 56, 36-43.	6.1	17
43	Traffic Monitoring via Mobile Device Location. Sensors, 2019, 19, 4505.	3.8	17
44	An enhanced symmetric-key based 5G-AKA protocol. Computer Networks, 2021, 198, 108373.	5.1	17
45	5G Numerologies Assessment for URLLC in Industrial Communications. Sensors, 2021, 21, 2489.	3.8	16
46	A method of assessment of LTE coverage holes. Eurasip Journal on Wireless Communications and Networking, 2016, 2016, .	2.4	15
47	Automatic root cause analysis based on traces for LTE self-organizing networks. IEEE Wireless Communications, 2016, 23, 20-28.	9.0	15
48	Estimation of Video Streaming KQIs for Radio Access Negotiation in Network Slicing Scenarios. IEEE Communications Letters, 2020, 24, 1304-1307.	4.1	15
49	5G for Construction: Use Cases and Solutions. Electronics (Switzerland), 2021, 10, 1713.	3.1	14
50	Impact of antenna downtilting on network performance in GERAN systems. IEEE Communications Letters, 2005, 9, 598-600.	4.1	13
51	Design of a Computationally Efficient Dynamic System-Level Simulator for Enterprise LTE Femtocell Scenarios. Journal of Electrical and Computer Engineering, 2012, 2012, 1-14.	0.9	13
52	Location-aware self-organizing methods in femtocell networks. Computer Networks, 2015, 93, 125-140.	5.1	13
53	Location-based distributed sleeping cell detection and root cause analysis for 5G ultra-dense networks. Eurasip Journal on Wireless Communications and Networking, 2016, 2016, .	2.4	13
54	A Bayesian Approach for Automated Troubleshooting for UMTS Networks. , 2006, , .		12

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55	Dynamic traffic steering based on fuzzy Q-Learning approach in a multi-RAT multi-layer wireless network. Computer Networks, 2014, 71, 100-116.	5.1	12
56	Opportunistic Fusion of Ranges From Different Sources for Indoor Positioning. IEEE Communications Letters, 2021, 25, 2260-2264.	4.1	12
57	Automatic Feature Selection Technique for Next Generation Self-Organizing Networks. IEEE Communications Letters, 2018, 22, 1272-1275.	4.1	11
58	The Celtic Gandalf Framework. , 0, , .		10
59	Online Anomaly Detection System for Mobile Networks. Sensors, 2020, 20, 7232.	3.8	10
60	Comparison of probabilistic models used for diagnosis in cellular networks. , 0, , .		9
61	Location-Awareness for Failure Management in Cellular Networks: An Integrated Approach. Sensors, 2021, 21, 1501.	3.8	9
62	Social-Aware Forecasting for Cellular Networks Metrics. IEEE Communications Letters, 2021, 25, 1931-1934.	4.1	9
63	Combination of multiple diagnosis systems in Self-Healing networks. Expert Systems With Applications, 2016, 64, 56-68.	7.6	8
64	Unsupervised Technique for Automatic Selection of Performance Indicators in Self-Organizing Networks. IEEE Communications Letters, 2017, 21, 2198-2201.	4.1	8
65	Optimization of the assignment of cells to packet control units in GERAN. IEEE Communications Letters, 2006, 10, 219-221.	4.1	7
66	Enhancing localization accuracy with multi-antenna UHF RFID fingerprinting. , 2015, , .		7
67	Load balancing mechanisms for indoor temporarily overloaded heterogeneous femtocell networks. Eurasip Journal on Wireless Communications and Networking, 2015, 2015, .	2.4	7
68	Improving Cell Outage Management Through Data Analysis. IEEE Wireless Communications, 2017, 24, 113-119.	9.0	7
69	Knowledge Acquisition for Fault Management in LTE Networks. Wireless Personal Communications, 2017, 95, 2895-2914.	2.7	7
70	KQI Performance Evaluation of 3GPP LBT Priorities for Indoor Unlicensed Coexistence Scenarios. Electronics (Switzerland), 2020, 9, 1701.	3.1	7
71	Dynamic Packet Duplication for Industrial URLLC. Sensors, 2022, 22, 587.	3.8	7
72	Analysis of mobile measurement-based interference matrices in GSM networks. , 0, , .		6

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73	LTE performance data reduction for knowledge acquisition. , 2014, , .		6
74	Feature Extraction for Dimensionality Reduction in Cellular Networks Performance Analysis. Sensors, 2020, 20, 6944.	3.8	6
75	Mass Tracking in Cellular Networks for the COVID-19 Pandemic Monitoring. Sensors, 2021, 21, 3424.	3.8	6
76	The EUREKA GANDALF Project: Monitoring and Self-Tuning Techniques for Heterogeneous Radio Access Networks. , 0, , .		5
77	Multipactor Analysis in Coaxial Waveguides for Satellite Applications using Frequency-Domain Methods. , 2006, , .		5
78	Estimation of link-layer quality parameters in a system-level LTE simulator. , 2010, , .		5
79	Degradation Detection Algorithm for LTE Root Cause Analysis. Wireless Personal Communications, 2017, 97, 4563-4572.	2.7	5
80	A method for identifying faulty cells using a classification tree-based UE diagnosis in LTE. Eurasip Journal on Wireless Communications and Networking, 2017, 2017, .	2.4	5
81	Modelling LTE Solved Troubleshooting Cases. Journal of Network and Systems Management, 2018, 26, 23-50.	4.9	5
82	Cellular Network Radio Monitoring and Management through Virtual UE Probes: A Study Case Based on Crowded Events. Sensors, 2021, 21, 3404.	3.8	5
83	Verification and Validation Framework for AFDX Avionics Networks. IEEE Access, 2022, 10, 66743-66756.	4.2	5
84	Multipactor Analysis in Microwave Components for High-Power Satellite Applications. International Power Modulator Symposium and High-Voltage Workshop, 2006, , .	0.0	4
85	Unsupervised System for Diagnosis in LTE Networks Using Bayesian Networks. , 2015, , .		4
86	Improving load balancing techniques by location awareness at indoor femtocell networks. Eurasip Journal on Wireless Communications and Networking, 2016, 2016, .	2.4	4
87	Coordinated location-based self-optimization for indoor femtocell networks. Computer Networks, 2016, 106, 1-16.	5.1	4
88	Greenfield Design in 5G FWA Networks. IEEE Communications Letters, 2019, 23, 2422-2426.	4.1	4
89	Knowledge Acquisition for Diagnosis in Cellular Networks Based on Bayesian Networks. Lecture Notes in Computer Science, 2006, , 55-65.	1.3	4
90	Adjustment of mobility parameters for traffic steering in multi-RAT multi-layer wireless networks. Eurasip Journal on Wireless Communications and Networking, 2013, 2013, .	2.4	3

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91	Swapped Sectors Detection Based on Mobility Statistics. IEEE Communications Letters, 2018, 22, 1038-1041.	4.1	3
92	Social-Aware Load Balancing System for Crowds in Cellular Networks. IEEE Access, 2021, 9, 107812-107823.	4.2	3
93	Multipactor Analysis in Coaxial Waveguides. , 0, , .		2
94	Identification of missing neighbor cells in GERAN. Wireless Networks, 2009, 15, 887-899.	3.0	2
95	Unsupervised Performance Functions for Wireless Self-Organising Networks. Wireless Personal Communications, 2016, 90, 2017-2032.	2.7	2
96	Traffic Steering for eMBB in Multi-Connectivity Scenarios. Electronics (Switzerland), 2020, 9, 2063.	3.1	2
97	Transform-Based Multiresolution Decomposition for Degradation Detection in Cellular Networks. Sensors, 2020, 20, 5645.	3.8	2
98	Multinode Component Carrier Management: Multiconnectivity in 5G. IEEE Vehicular Technology Magazine, 2021, 16, 40-47.	3.4	2
99	QoE Optimization in a Live Cellular Network through RLC Parameter Tuning. Sensors, 2021, 21, 5619.	3.8	2
100	On the Capability of QoE Improvement Based on the Adjustment of RLC Parameters. Sensors, 2020, 20, 2474.	3.8	2
101	Assessing the impact of DRS signaling in unlicensed indoor coexistence scenarios. Eurasip Journal on Wireless Communications and Networking, 2020, 2020, .	2.4	2
102	Simulations and trial results for mobile measurement based frequency planning in GERAN networks. , 0, , .		1
103	Multiple Intervals Versus Smoothing of Boundaries in the Discretization of Performance Indicators Used for Diagnosis in Cellular Networks. Lecture Notes in Computer Science, 2005, , 958-967.	1.3	1
104	Dynamic Multipath Connection for Low-Latency Vehicle- to-Everything (V2X) Communications. , 2018, , .		1
105	Street Sections Design Based on Real Traffic Data: Case Study of Málaga, Spain. Journal of the Urban Planning and Development Division, ASCE, 2019, 145, 04019010.	1.7	1
106	Anomaly detection and analysis framework for mobile networks. , 2021, , .		1
107	Location-Aware Node Management Solution for Multi-Radio Dual Connectivity Scenarios. Sensors, 2021, 21, 7450.	3.8	1
108	Proactive Dual Connectivity for Automated Guided Vehicles in Outdoor Industrial Environment. IEEE Access, 2022, 10, 54149-54163.	4.2	1

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109	Automated Troubleshooting of Satellite Communication Ground Equipment. Aerospace Conference Proceedings IEEE, 2008, , .	0.0	0
110	Inter-system cell reselection parameter auto-tuning in a joint-RRM scenario. , 2010, , .		0
111	Fault compensation algorithm based on handover margins in LTE networks. Eurasip Journal on Wireless Communications and Networking, 2016, 2016, .	2.4	0
112	Swapped Sectors Detection on Multi-Layer Networks. IEEE Communications Letters, 2018, 22, 2342-2345.	4.1	0
113	5G Component Carrier Management Evaluation by Means of System Level Simulations. , 2019, , .		0
114	Edge Sectors Detection in Mobile Communications Networks. , 2019, , .		0
115	Swapped Sectors Detection Based on User Location During Inter-Site Handovers. IEEE Access, 2019, 7, 92547-92560.	4.2	0
116	Modeling the UE-perceived cellular network performance following a controller-based approach. Eurasip Journal on Wireless Communications and Networking, 2019, 2019, .	2.4	0
117	Radio Frequency Footprint Characterization Based on Mobility Indicators. IEEE Wireless Communications Letters, 2021, 10, 141-145.	5.0	0
118	A Multivariate Time-Series Based Approach for Quality Modeling in Wireless Networks. Sensors, 2021, 21, 2017.	3.8	0
119	Framework for Behavioral Analysis of Mobile Networks. Sensors, 2021, 21, 3347.	3.8	0
120	Method for Artificial KPI Generation With Realistic Time-Dependent Behaviour. IEEE Communications Letters, 2021, 25, 2978-2982.	4.1	0
121	Automated Fault Management in Wireless Networks. Advances in E-Business Research Series, 2009, , 742-759.	0.4	0