

Klaus Moessner

List of Publications by Year in descending order

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Version: 2024-02-01

171
papers

3,629
citations

236925

25
h-index

206112

48
g-index

174
all docs

174
docs citations

174
times ranked

4060
citing authors

#	ARTICLE	IF	CITATIONS
1	Enabling smart cities through a cognitive management framework for the internet of things. , 2013, 51, 102-111.		336
2	Interference Management in Femtocells. IEEE Communications Surveys and Tutorials, 2013, 15, 293-311.	39.4	294
3	An Energy-Efficient Clustering Solution for Wireless Sensor Networks. IEEE Transactions on Wireless Communications, 2011, 10, 3973-3983.	9.2	245
4	Licensed Spectrum Sharing Schemes for Mobile Operators: A Survey and Outlook. IEEE Communications Surveys and Tutorials, 2016, 18, 2591-2623.	39.4	177
5	A Survey of Radio Resource Management for Spectrum Aggregation in LTE-Advanced. IEEE Communications Surveys and Tutorials, 2014, 16, 745-760.	39.4	144
6	A Comprehensive Ontology for Knowledge Representation in the Internet of Things. , 2012, , .		114
7	IEEE 1900.6: spectrum sensing interfaces and data structures for dynamic spectrum access and other advanced radio communication systems standard: technical aspects and future outlook. IEEE Communications Magazine, 2011, 49, 118-127.	6.1	104
8	Predictive Analytics for Complex IoT Data Streams. IEEE Internet of Things Journal, 2017, 4, 1571-1582.	8.7	98
9	Shared Backup Network Provision for Virtual Network Embedding. , 2011, , .		81
10	An Ingestion and Analytics Architecture for IoT Applied to Smart City Use Cases. IEEE Internet of Things Journal, 2018, 5, 765-774.	8.7	70
11	Analysing real world data streams with spatio-temporal correlations: Entropy vs. Pearson correlation. Automation in Construction, 2018, 88, 87-100.	9.8	69
12	An Intelligent Task Allocation Scheme for Multihop Wireless Networks. IEEE Transactions on Parallel and Distributed Systems, 2012, 23, 444-451.	5.6	64
13	EHOPEs: Data-centered Fog platform for smart living. , 2015, , .		64
14	Dynamic Heterogeneous Learning Games for Opportunistic Access in LTE-Based Macro/Femtocell Deployments. IEEE Transactions on Wireless Communications, 2015, 14, 2294-2308.	9.2	63
15	Providing SOAP Web Services and RESTful Web Services from Mobile Hosts. , 2010, , .		62
16	Comparison of reliability, delay and complexity for standalone cognitive radio spectrum sensing schemes. IET Communications, 2013, 7, 799-807.	2.2	62
17	SmartTags: IoT Product Passport for Circular Economy Based on Printed Sensors and Unique Item-Level Identifiers. Sensors, 2019, 19, 586.	3.8	61
18	Cyberâ€“Physicalâ€“Social Frameworks for Urban Big Data Systems: A Survey. Applied Sciences (Switzerland), 2017, 7, 1017.	2.5	56

#	ARTICLE	IF	CITATIONS
19	Energy-Efficient Short Packet Communications for Uplink NOMA-Based Massive MTC Networks. IEEE Transactions on Vehicular Technology, 2019, 68, 12066-12078.	6.3	55
20	Probabilistic Matchmaking Methods for Automated Service Discovery. IEEE Transactions on Services Computing, 2014, 7, 654-666.	4.6	54
21	Knowledge Representation in the Internet of Things: Semantic Modelling and its Applications. Automatika, 2013, 54, 388-400.	2.0	52
22	Survey of Experimental Evaluation Studies for Wireless Mesh Network Deployments in Urban Areas Towards Ubiquitous Internet. IEEE Communications Surveys and Tutorials, 2013, 15, 223-239.	39.4	49
23	Order-Statistic Based Spectrum Sensing for Cognitive Radio. IEEE Communications Letters, 2012, 16, 592-595.	4.1	47
24	Collaborative Spectrum Sensing Optimisation Algorithms for Cognitive Radio Networks. International Journal of Digital Multimedia Broadcasting, 2010, 2010, 1-20.	0.6	46
25	Search Techniques for the Web of Things: A Taxonomy and Survey. Sensors, 2016, 16, 600.	3.8	46
26	Contextual occupancy detection for smart office by pattern recognition of electricity consumption data. , 2015, , .		36
27	An experimental study on geospatial indexing for sensor service discovery. Expert Systems With Applications, 2015, 42, 3528-3538.	7.6	33
28	Resource Reservation Schemes for IEEE 802.11-Based Wireless Networks: A Survey. IEEE Communications Surveys and Tutorials, 2013, 15, 1042-1061.	39.4	29
29	A Hybrid Semantic Matchmaker for IoT Services. , 2012, , .		28
30	Real World City Event Extraction from Twitter Data Streams. Procedia Computer Science, 2016, 98, 443-448.	2.0	27
31	Dynamic Spectrum Allocation Algorithm with Interference Management in Co-Existing Networks. IEEE Communications Letters, 2011, 15, 932-934.	4.1	26
32	Energy-Efficient Sensor Scheduling Algorithm in Cognitive Radio Networks Employing Heterogeneous Sensors. IEEE Transactions on Vehicular Technology, 2015, 64, 1243-1249.	6.3	26
33	Context-aware stream processing for distributed IoT applications. , 2015, , .		24
34	A downlink power control scheme for interference avoidance in femtocells. , 2011, , .		23
35	QoS and Energy Efficient Resource Allocation in Uplink SC-FDMA Systems. IEEE Transactions on Wireless Communications, 2015, 14, 3033-3045.	9.2	23
36	Semantic enablers for dynamic digital-physical object associations in a federated node architecture for the Internet of Things. Ad Hoc Networks, 2014, 18, 102-120.	5.5	22

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37	Predicting complex events for pro-active IoT applications. , 2015, , .		21
38	Latency and Energy-Consumption Optimized Task Allocation in Wireless Sensor Networks. , 2010, , .		20
39	Smart Cities via Data Aggregation. Wireless Personal Communications, 2014, 76, 149-168.	2.7	20
40	Accurate detection of real-world social interactions with smartphones. , 2015, , .		18
41	Leveraging MPLS Backup Paths for Distributed Energy-Aware Traffic Engineering. IEEE Transactions on Network and Service Management, 2014, 11, 235-249.	4.9	17
42	Advances in base- and mobile-station aided cooperative wireless communications: An overview. IEEE Vehicular Technology Magazine, 2013, 8, 57-69.	3.4	16
43	Mobility driven energy detection based spectrum sensing framework of a cognitive radio. , 2010, , .		15
44	Robust spectrum sensing based on statistical tests. IET Communications, 2013, 7, 808-817.	2.2	15
45	Dynamic Task Allocation in Multi-Hop Multimedia Wireless Sensor Networks with Low Mobility. Sensors, 2013, 13, 13998-14028.	3.8	15
46	Optimizing Link Sleeping Reconfigurations in ISP Networks with Off-Peak Time Failure Protection. IEEE Transactions on Network and Service Management, 2013, 10, 176-188.	4.9	15
47	Distributed sensor data computing in smart city applications. , 2017, , .		15
48	Radio Resource Management Approaches for Reliable Device-to-Device (D2D) Communication in Wireless Industrial Applications. IEEE Transactions on Cognitive Communications and Networking, 2021, 7, 905-916.	7.9	15
49	Design, Development, and Evaluation of 5G-Enabled Vehicular Services: The 5G-HEART Perspective. Sensors, 2022, 22, 426.	3.8	15
50	Market Driven Dynamic Spectrum Allocation over Space and Time among Radio-Access Networks: DVB-T and B3G CDMA with Heterogeneous Terminals. Mobile Networks and Applications, 2006, 11, 847-860.	3.3	14
51	A Survey on Mobile Social Signal Processing. ACM Computing Surveys, 2016, 48, 1-52.	23.0	14
52	Spatial Indexing for Data Searching in Mobile Sensing Environments. Sensors, 2017, 17, 1427.	3.8	14
53	Context-aware management for sensor networks. , 2011, , .		13
54	Optimization for time-driven link sleeping reconfigurations in ISP backbone networks. , 2012, , .		13

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55	Leveraging the Internet of Things: Integration of Sensors and Cloud Computing Systems. International Journal of Distributed Sensor Networks, 2016, 12, 9764287.	2.2	13
56	On IGP link weight optimization for joint energy efficiency and load balancing improvement. Computer Communications, 2014, 50, 130-141.	5.1	12
57	A ranking method for sensor services based on estimation of service access cost. Information Sciences, 2015, 319, 1-17.	6.9	12
58	Using Sensors to Study Home Activities. Journal of Sensor and Actuator Networks, 2017, 6, 32.	3.9	12
59	Energy efficient ANDSF-assisted network discovery for non-3GPP access networks. , 2012, , .		11
60	An overview of learning mechanisms for cognitive systems. Eurasip Journal on Wireless Communications and Networking, 2012, 2012, .	2.4	11
61	Robust collaborative spectrum sensing in the presence of deleterious users. IET Communications, 2013, 7, 49-56.	2.2	11
62	Enabling Query of Frequently Updated Data from Mobile Sensing Sources. , 2014, , .		11
63	Multilateration localization based on Singular Value Decomposition for 3D indoor positioning. , 2016, , .		11
64	Ontologies and context modeling for the Web of Things. , 2017, , 3-36.		11
65	Composition of services in pervasive environments: A Divide and Conquer approach. , 2013, , .		10
66	Quality of service provision and capacity expansion through extended-DSA for 5G. , 2016, , .		10
67	Intelligent Multimedia Presentation in Ubiquitous Multidevice Scenarios. IEEE MultiMedia, 2010, 17, 52-63.	1.7	9
68	Distributed power control algorithm for cognitive radios with primary protection via spectrum sensing under user mobility. Ad Hoc Networks, 2012, 10, 740-751.	5.5	9
69	The 5G Huddle [From the Guest Editors]. IEEE Vehicular Technology Magazine, 2015, 10, 28-31.	3.4	9
70	Lessons from SmartCampus: External Experimenting with User-Centric Internet-of-Things Testbed. Wireless Personal Communications, 2017, 93, 709-723.	2.7	9
71	Adaptive Resource Management Platform for Reconfigurable Networks. Mobile Networks and Applications, 2006, 11, 799-811.	3.3	8
72	Context-Aware Service Adaptation Management. , 2007, , .		8

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73	Ontology-based context inference and query for mobile devices. , 2008, , .		8
74	A framework for mobile, context-aware applications. , 2009, , .		8
75	Distributed Power Control for Cognitive Radios with Primary Protection via Spectrum Sensing. , 2010, , .		8
76	Distributing resource intensive mobile web services. , 2011, , .		8
77	Optimal Strategy for QoS Provision under Spectrum Mobility in Cognitive Radio Networks. , 2012, , .		8
78	Maximum Outage Capacity in Dense Indoor Femtocell Networks with Joint Energy and Spectrum Utilization. IEEE Transactions on Wireless Communications, 2012, 11, 4416-4425.	9.2	8
79	Cognitive Radio Systems Evaluation: Measurement, Modeling, and Emulation Approach. IEEE Vehicular Technology Magazine, 2012, 7, 77-84.	3.4	8
80	Machine Learning Based Knowledge Acquisition on Spectrum Usage for LTE Femtocells. , 2013, , .		8
81	CARD: Context-Aware Resource Discovery for mobile Internet of Things scenarios. , 2014, , .		8
82	5G for Vehicular Use Cases: Analysis of Technical Requirements, Value Propositions and Outlook. IEEE Open Journal of Intelligent Transportation Systems, 2021, 2, 73-96.	4.8	8
83	Software radio and reconfiguration management. Computer Communications, 2003, 26, 26-35.	5.1	7
84	SPICE: Evolving IMS to Next Generation Service Platforms. , 2007, , .		7
85	Traffic modelling and forecasting using genetic algorithms for next-generation cognitive radio applications. Annales Des Telecommunications/Annals of Telecommunications, 2009, 64, 535-543.	2.5	7
86	Implementation of wavelet analysis for spectrum opportunity detection. , 2009, , .		7
87	Distributed Resource Reservation Mechanism for IEEE 802.11e-Based Networks. , 2010, , .		7
88	A Distributed Energy-Efficient Re-Clustering Solution for Wireless Sensor Networks. , 2011, , .		7
89	A Probabilistic Latent Factor approach to service ranking. , 2011, , .		7
90	Codebook Based Single-User MIMO System Design with Widely Linear Processing. IEEE Transactions on Communications, 2012, 60, 1-7.	7.8	7

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91	Knowledge Management Toolbox: Machine Learning for Cognitive Radio Networks. IEEE Vehicular Technology Magazine, 2012, 7, 91-99.	3.4	7
92	Cloud Internet of Things Framework for Enabling Services in Smart Cities. , 2017, , 163-191.		7
93	Service Continuity for Subscribers of the Mobile Real World Internet. , 2011, , .		6
94	Spectrum sensing for cognitive radio systems: technical aspects and standardization activities of the IEEE P1900.6 working group. IEEE Wireless Communications, 2011, 18, 30-37.	9.0	6
95	Statistical models of spectrum opportunities for cognitive radio. , 2011, , .		6
96	Device discovery in future service platforms through SIP. , 2012, , .		6
97	Distributed Resource Reservation in Hybrid MAC With Admission Control for Wireless Mesh Networks. IEEE Transactions on Vehicular Technology, 2015, 64, 5891-5903.	6.3	6
98	SocloTal – The development and architecture of a social IoT framework. , 2017, , .		6
99	5G Network Requirement Analysis and Slice Dimensioning for Sustainable Vehicular Services. , 2021, , .		6
100	Efficient Group-Based Multimedia-on-Demand Service Delivery in Wireless Networks. IEEE Transactions on Broadcasting, 2006, 52, 492-504.	3.2	5
101	End-to-End Reconfigurability in Heterogeneous Wireless Systems - Software and Cognitive Radio Solutions enriched by Policy- and Context-based Decision Making. , 2007, , .		5
102	An alternative concept to scanning process for cognitive radio systems: technical and regulatory issues. , 2007, , .		5
103	Providing Light Weight Distributed Web Services from Mobile Hosts. , 2011, , .		5
104	Quality of service provision and capacity expansion through extended –DSA for 5G. Transactions on Emerging Telecommunications Technologies, 2016, 27, 1250-1261.	3.9	5
105	Quantifying trust relationships based on real-world social interactions. , 2016, , .		5
106	Analysing environmental impact of large-scale events in public spaces with cross-domain multimodal data fusion. Computing (Vienna/New York), 2021, 103, 1959-1981.	4.8	5
107	A Fuzzy Reinforcement Learning Approach for Pre-Congestion Notification Based Admission Control. Lecture Notes in Computer Science, 2012, , 26-37.	1.3	5
108	End-to-End Architecture for Cognitive Reconfigurable Wireless Networks. , 2007, , .		4

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109	Device and service descriptions in Personal Distributed Environments. , 2007, , .		4
110	Optimisation of collaborative spectrum sensing with SIMO cognitive terminals using genetic algorithm. , 2009, , .		4
111	Experimental Study of Multi-Resolution Spectrum Opportunity Detection Using Wavelet Analysis. , 2010, , .		4
112	Optimal Network Discovery Period for Energy-Efficient WLAN Offloading. , 2013, , .		4
113	Energy-Efficient WLAN Offloading Through Network Discovery Period Optimization. IEEE Transactions on Vehicular Technology, 2015, 64, 2591-2602.	6.3	4
114	Practical Spectrum Aggregation for Secondary Networks With Imperfect Sensing. IEEE Transactions on Vehicular Technology, 2016, 65, 5474-5484.	6.3	4
115	Providing and Evaluating the Mobile Web Service Distribution Mechanisms Using Fuzzy Logic. Journal of Software, 2012, 7, .	0.6	4
116	Context-Aware Learning for Intelligent Mobile Multimodal user Interfaces. , 2007, , .		3
117	Collaborative spectrum sensing: Optimising the number of collaborating users. , 2009, , .		3
118	Efficient Spectrum Management among Spectrum Sharing UMTS Operators. , 2011, , .		3
119	Selecting users in energy-efficient collaborative spectrum sensing. , 2012, , .		3
120	Shared use of radio spectrum in the EU: From research projects to standards. , 2013, , .		3
121	The study on spectrum/channel fragmentation from dynamic spectrum aggregation in CRNs. , 2014, , .		3
122	SINR Based Topology Control for Multihop Wireless Networks with Fault Tolerance. , 2015, , .		3
123	Priority Service Provisioning and Maxâ€“Min Fairness: A Utility-Based Flow Control Approach. Journal of Network and Systems Management, 2017, 25, 397-415.	4.9	3
124	Dynamic Scheduler Management Using Deep Learning. IEEE Transactions on Cognitive Communications and Networking, 2020, 6, 575-585.	7.9	3
125	Opportunistic Spectrum Aggregation for Cognitive Communications Under Collision Constraints. , 2014, , .		3
126	Mobile Multimodality: A Theoretical Approach to Facilitate Virtual Device Environments. Mobile Networks and Applications, 2008, 13, 569-582.	3.3	2

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127	Emerging, Self-Management Functionality for Introducing Cognition in the Wireless, B3G World. Wireless Personal Communications, 2009, 48, 33-47.	2.7	2
128	Using formal verification methods and tools for protocol profiling and performance assessment in mobile and wireless environments. , 2010, , .		2
129	Towards efficient protocol design through protocol profiling and verification of performance and operational metrics. , 2010, , .		2
130	A mediated gossiping mechanism for large-scale sensor networks. , 2011, , .		2
131	Distributed resource reservation for real time sessions in multi-hop wireless networks. , 2011, , .		2
132	Utility-Based Dynamic Spectrum Aggregation Algorithm in Cognitive Radio Networks. , 2012, , .		2
133	Distributed interference-aware admission control with soft resource allocation for hybrid MAC in wireless mesh networks. , 2012, , .		2
134	Implementation of federated query processing on Linked Data. , 2013, , .		2
135	Multi-Timescale QoE Provisioning for Adaptive Video Streaming in Heterogeneous Deployments. IEEE Transactions on Vehicular Technology, 2021, 70, 1894-1909.	6.3	2
136	Device and service descriptions for ontology-based ubiquitous multimedia services. , 2008, , .		2
137	Semantic Web in Ubiquitous Mobile Communications. , 0, , 266-287.		2
138	Analysis of Complexity and Transaction Costs for Cooperating Networks. , 2007, , .		1
139	On the enhancement of mobility and multimedia communications in heterogeneous RANs. International Journal of Internet Protocol Technology, 2008, 3, 22.	0.2	1
140	Collaborative spectrum sensing in OFDM-based Cognitive Radio. , 2009, , .		1
141	Dynamic spectrum allocation algorithm with interference management in displaced networks. , 2011, , .		1
142	Robust spectrum sensing for cognitive radio based on statistical tests. , 2011, , .		1
143	Distributed Power Control for Cognitive Radio Networks, Based on Incumbent Outage Information. , 2011, , .		1
144	Toward efficient protocol design through protocol profiling and performance assessment: using formal verification in a different context. International Journal of Communication Systems, 2012, 25, 1415-1431.	2.5	1

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145	Collaborative radio resource allocation for the downlink of multi-cell multi-carrier systems. IET Communications, 2013, 7, 430-438.	2.2	1
146	Distributed Admission Control with Soft Resource Allocation for Hybrid MAC in Home M2M Networks. , 2015, , .		1
147	QoS and energy efficient resource allocation in downlink OFDMA systems. , 2015, , .		1
148	An Arrival and Departure Time Predictor for Scheduling Communication in Opportunistic IoT. Sensors, 2016, 16, 1852.	3.8	1
149	Optimized Root Selection Algorithm for Many-to-Many Communications in ICN. , 2016, , .		1
150	Energy-Efficient QoE-Driven Strategies for Context-Aware RAT Selection. IEEE Transactions on Green Communications and Networking, 2020, 4, 858-872.	5.5	1
151	Context for Multimedia Services Adaptation. , 2008, , .		1
152	A Context Aware Architecture for Energy Efficient Cognitive Radio. Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering, 2012, , 452-462.	0.3	1
153	A Sub-Optimal Channel Switching-Aware Spectrum Aggregation Approach for CRNs. , 2014, , .		1
154	Map of Relaying Messages (MORM) an approach of message distribution enabling Network Advertisement and Discovery. , 2007, , .		0
155	ACM/Springer Mobile Networks and Applications (MONET). Mobile Networks and Applications, 2008, 13, 543-546.	3.3	0
156	Capacity of grid-oriented wireless mesh networks. , 2008, , .		0
157	Functionality and Collaboration Mechanisms for Cognitive Wireless Networks and Systems. Journal of Network and Systems Management, 2010, 18, 1-3.	4.9	0
158	Policy-Aware Virtual relay placement for inter-domain path diversity. , 2010, , .		0
159	Cognitive Time Variant Power Control in Slow Fading Mobile Channels. , 2011, , .		0
160	Automated group formation in decentralised environments. , 2011, , .		0
161	Distributed MAC scheduling mechanism based on resource reservation for IEEE 802.11e-based multi-hop wireless networks. , 2012, , .		0
162	Distributed power control for secondary spectrum trading with incumbent protection. , 2013, , .		0

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163	Distributed Power Control and User Selection Algorithms for Cognitive Radios. , 2013, , .		0
164	Distributed learning game based spectrum sharing and resource selection for femtocells. , 2015, , .		0
165	Geospatial ontology-based mission assignment in Wireless Sensor Networks. , 2015, , .		0
166	Are Small Cells and Network Intelligence at the Edge the Drivers for 5G Market Adoption? The SESAME Case. Communications in Computer and Information Science, 2017, , 693-703.	0.5	0
167	Co-Primary Spectrum Sharing in Uplink SC-FDMA Networks. , 2018, , .		0
168	Context Dissemination for Autonomic Communication Systems. Lecture Notes in Computer Science, 2006, , 237-242.	1.3	0
169	Multipath Network Coding in Wireless Mesh Networks. Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering, 2012, , 267-274.	0.3	0
170	Delay Model for Super-Frame Based Resource Reservation in Distributed Wireless Networks. Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering, 2012, , 89-104.	0.3	0
171	Distributed Topology Control with SINR Based Interference for Multihop Wireless Networks. Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering, 2016, , 246-258.	0.3	0