David Grace

List of Publications by Year
in descending order

120	1,625	516710 16	395702 33
papers	citations	h-index	g-index

137	137	137	1221
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Optimizing an array of antennas for cellular coverage from a high altitude platform. IEEE Transactions on Wireless Communications, 2003, 2, 484-492.	9.2	128
2	Blockchain-Based Secure Spectrum Trading for Unmanned-Aerial-Vehicle-Assisted Cellular Networks: An Operatorâ€™s Perspective. IEEE Internet of Things Journal, 2020, 7, 451-466.	8.7	127
3	Broadband communications from a high-altitude platform: the European HeliNet programme. Electronics and Communication Engineering Journal, 2001, 13, 138-144.	0.5	114
4	Improving the system capacity of broadband services using multiple high-altitude platforms. IEEE Transactions on Wireless Communications, 2005, 4, 700-709.	9.2	82
5	A review of wireless communication using high-altitude platforms for extended coverage and capacity. Computer Communications, 2020, 157, 232-256.	5.1	65
6	Providing multimedia communications services from high altitude platforms. International Journal of Satellite Communications and Networking, 2001, 19, 559-580.	0.6	61
7	Application of reinforcement learning to medium access control for wireless sensor networks. Engineering Applications of Artificial Intelligence, 2015, 46, 23-32.	8.1	51
8	ALOHA and Q-Learning based medium access control for Wireless Sensor Networks. , 2012, , .		47
9	Integration of a HAP within a Terrestrial UMTS Network: Interference Analysis and Cell Dimensioning. Wireless Personal Communications, 2003, 24, 291-325.	2.7	39
10	Reinforcement Learning Based MAC Protocol (UW-ALOHA-Q) for Underwater Acoustic Sensor Networks. IEEE Access, 2019, 7, 165531-165542.	4.2	39
11	Energy-Aware Resource Management in Heterogeneous Cellular Networks With Hybrid Energy Sources. IEEE Transactions on Network and Service Management, 2019, 16, 279-293.	4.9	36
12	Using cognitive radio to deliver ‘Green’ communications. , 2009, , .		33
13	Use of Q-learning approaches for practical medium access control in wireless sensor networks. Engineering Applications of Artificial Intelligence, 2016, 55, 146-154.	8.1	31
14	Performance of Multiple High Altitude Platforms using Directive HAP and User Antennas. Wireless Personal Communications, 2005, 32, 275-299.	2.7	30
15	Effect of lateral displacement of a high-altitude platform on cellular interference and handover. IEEE Transactions on Wireless Communications, 2005, 4, 1483-1490.	9.2	27
16	Energy Management of Solar-Powered Aircraft-Based High Altitude Platform for Wireless Communications. Electronics (Switzerland), 2020, 9, 179.	3.1	24
17	Reducing call dropping in distributed dynamic channel assignment algorithms by incorporating power control in wireless ad hoc networks. IEEE Journal on Selected Areas in Communications, 2000, 18, 2417-2428.	14.0	23
18	Exploiting platform diversity for GoS improvement for users with different High Altitude Platform availability. IEEE Transactions on Wireless Communications, 2009, 8, 196-203.	9.2	23

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19	Utility based cooperative spectrum leasing in cognitive radio networks. , 2012, , .		23
20	LMDS from high altitude aeronautical platforms. , 0, , .		20
21	User-centric JT-CoMP clustering in a 5G cell-less architecture. , 2018, , .		18
22	Burst Targeted Demand Assignment Multiple-Access for Broadband Internet Service Delivery Over Geostationary Satellite. IEEE Journal on Selected Areas in Communications, 2004, 22, 546-558.	14.0	16
23	A Transmit and Receive Multi-Antenna Channel Model and Simulator for Communications from High Altitude Platforms. International Journal of Wireless Information Networks, 2006, 13, 59-75.	2.7	16
24	Improving Capacity for Wireless Ad Hoc Communications Using Cognitive Routing. , 2008, , .		16
25	Exploiting User-Centric Joint Transmission â€“ Coordinated Multipoint With a High Altitude Platform System Architecture. IEEE Access, 2019, 7, 38957-38972.	4.2	16
26	Effect of Antenna Power Roll-Off on the Performance of 3G Cellular Systems from High Altitude Platforms. IEEE Transactions on Aerospace and Electronic Systems, 2010, 46, 1468-1477.	4.7	15
27	Distributed Q-learning based dynamic spectrum management in cognitive cellular systems: Choosing the right learning rate. , 2014, , .		15
28	Distributed Q-learning based dynamic spectrum access in high capacity density cognitive cellular systems using secondary LTE spectrum sharing. , 2014, , .		15
29	Reinforcement Learning Based MAC Protocol (UW-ALOHA-QM) for Mobile Underwater Acoustic Sensor Networks. IEEE Access, 2021, 9, 5906-5919.	4.2	14
30	Cognitive radio with reinforcement learning applied to heterogeneous multicast terrestrial communication systems. , 2009, , .		13
31	Effect of Antenna Beam Pattern and Layout on Cellular Performance in High Altitude Platform Communications. Wireless Personal Communications, 2005, 35, 35-51.	2.7	12
32	Performance of cognitive radio reinforcement spectrum sharing using different weighting factors. , 2008, , .		12
33	An SDN-based framework for elastic resource sharing in integrated FDD/TDD LTE-A HetNets. , 2014, , .		12
34	Cognitive green backhaul deployments for future 5G networks. , 2014, , .		12
35	Cognitive spectrum management in dynamic cellular environments: A case-based Q-learning approach. Engineering Applications of Artificial Intelligence, 2016, 55, 239-249.	8.1	12
36	Cognitive Radio with Reinforcement Learning Applied to Multicast Downlink Transmission with Power Adjustment. Wireless Personal Communications, 2011, 57, 73-87.	2.7	11

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37	Energy efficient topology management for beyond next generation mobile broadband systems. , 2012, , .		11
38	Transfer learning and cooperation management: balancing the quality of service and information exchange overhead in cognitive radio networks. Transactions on Emerging Telecommunications Technologies, 2015, 26, 290-301.	3.9	11
39	Antenna array beamforming strategies for high altitude platform and terrestrial coexistence using K-means clustering. , 2017, , .		11
40	Performance of a Multiple HAP System Employing Multiple Polarization. Wireless Personal Communications, 2010, 52, 105-117.	2.7	10
41	A multiâ€criteria BS switchingâ€off algorithm for 5G heterogeneous cellular networks with hybrid energy sources. Transactions on Emerging Telecommunications Technologies, 2016, 27, 923-938.	3.9	10
42	Comparative performance of the CFDAMA protocol via satellite with various terminal request strategies. , 0, , .		9
43	High Altitude Platform mm-Wave Aperture Antenna Steering Solutions. Wireless Personal Communications, 2005, 32, 215-236.	2.7	9
44	Overlap Area Assisted Call Admission Control Scheme for Communications System. IEEE Transactions on Aerospace and Electronic Systems, 2011, 47, 2911-2920.	4.7	9
45	Combined green resource and topology management for beyond next generation mobile broadband systems. , 2013, , .		9
46	Transfer Learning: A Paradigm for Dynamic Spectrum and Topology Management in Flexible Architectures. , 2013, , .		9
47	Singleâ€state Qâ€learning for selfâ€organised radio resource management in dualâ€hop 5G high capacity density networks. Transactions on Emerging Telecommunications Technologies, 2016, 27, 1628-1640.	3.9	9
48	Performance of the ALOHA-Q MAC Protocol for Underwater Acoustic Networks. , 2018, , .		9
49	Iterative Interference Cancellation in FBMC-QAM Systems. , 2019, , .		9
50	Analytical model of round-robin scheduling for a geostationary satellite system. IEEE Communications Letters, 2003, 7, 546-548.	4.1	8
51	RF signal Strength based clustering protocols for a self-organizing cognitive radio network. , 2010, , .		8
52	Virtual Cells: Enhancing the Resource Allocation Efficiency for TD-LTE. , 2014, , .		8
53	Service-oriented resource virtualization for evolving TDD networks towards 5G. , 2016, , .		8
54	Intelligent RACH Access Techniques to Support M2M Traffic in Cellular Networks. IEEE Transactions on Vehicular Technology, 2018, 67, 8905-8918.	6.3	8

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55	Capacity and Coverage Analysis of High Altitude Platform (HAP) Antenna Arrays for Rural Vehicular Broadband Services. , 2020, , .		8
56	Multiple Description Coding for Enhancing Outage and Video Performance Over Relay-Assisted Cognitive Radio Networks. IEEE Access, 2022, 10, 11750-11762.	4.2	8
57	Performance of the combined free/demand assignment multiple access protocol with combined request strategies via satellite. , 0, , .		7
58	Traffic perception based topology management for 5G green ultra-small cell networks. , 2014, , .		7
59	Using k-means clustering with transfer and Q learning for spectrum, load and energy optimization in opportunistic mobile broadband networks. , 2015, , .		7
60	An SDN-based virtual cell framework for enhancing the QoE in TD-LTE pico cells. , 2015, , .		7
61	Cognitive radio multiple access control for unlicensed and open spectrum with reduced spectrum sensing requirements. , 2010, , .		6
62	Practical Implementation and Stability Analysis of ALOHA-Q for Wireless Sensor Networks. ETRI Journal, 2016, 38, 911-921.	2.0	6
63	A base station selection scheme for handover in a mobility-aware ultra-dense small cell urban vehicular environment. , 2017, , .		6
64	Radio Resource Management for User-Centric JT-CoMP. , 2018, , .		6
65	Load Balancing and Control Using Particle Swarm Optimisation in 5G Heterogeneous Networks. , 2018, , .		6
66	The effects of interference threshold and SNR hysteresis on distributed channel assignment algorithms for UFDMA. , 0, , .		5
67	Assessment of Coexistence Performance for WiMAX Broadband in HAP Cellular System and Multiple-Operator Terrestrial Deployments. , 2007, , .		5
68	Capacity Analysis of Coexisting TD-SCDMA / WCDMA Systems. , 2007, , .		5
69	Distributed beamforming for cognitive radio networks. , 2008, , .		5
70	Multichannel non-persistent CSMA MAC schemes with reinforcement learning for cognitive radio networks. , 2011, , .		5
71	Reinforcement learning based ALOHA for multi-hop wireless sensor networks with informed receiving. , 2012, , .		5
72	A quantum inspired reinforcement learning technique for beyond next generation wireless networks. , 2015, , .		5

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73	A Non-orthogonal Waveform Design with Iterative Detection and Decoding for Narrowband IoT Applications. , 2019, , .		5
74	Reinforcement learningâ€based clustering protocols for a selfâ€organising cognitive radio network. Transactions on Emerging Telecommunications Technologies, 2016, 27, 544-556.	3.9	4
75	User-centric JT-CoMP for High Altitude Platforms. , 2018, , .		4
76	Performance of a distributed dynamic channel assignment algorithm incorporating power control in a wireless environment. , 0, , .		3
77	Adaptive burst targeted demand assignment multiple access (BTDAMA) for geostationary satellite systems. , 0, , .		3
78	Capacity Evaluation of a Multi-Hop Wireless Ad hoc Network Using Minimum Impact Routing. , 2006, , .		3
79	Cognitive Radio with Reinforcement Learning Applied to Multicast Downlink Transmission and Distributed Occupancy Detection. , 2009, , .		3
80	Application of cognition based resource allocation strategies on a multi-hop backhaul network. , 2012, , .		3
81	Energy efficient soft real-time spectrum auction for dynamic spectrum access. , 2013, , .		3
82	Intelligent Dynamic Spectrum Access in Cellular Systems with Asymmetric Topologies and Non-Uniform Traffic Loads. , 2015, , .		3
83	Prioritised Dynamic RACH (PD-RACH) Scheme for Delay-Critical MTC Communication. , 2020, , .		3
84	Multi-User Wireless Information and Power Transfer in FBMC-Based IoT Networks. IEEE Open Journal of the Communications Society, 2021, 2, 545-563.	6.9	3
85	Joint User-Centric Clustering and Multi-cell Radio Resource Management in Coordinated Multipoint Joint Transmission. Wireless Personal Communications, 0, , 1.	2.7	3
86	Burst targeted demand assignment multiple access (BTDAMA) for on-off type data traffic via satellite. , 0, , .		2
87	Optimising the downlink capacity of broadband fixed wireless access systems for packet-based communications. , 0, , .		2
88	Comparison of CINR-based cognitive radio schemes for multiple high altitude platforms. , 2008, , .		2
89	Interaction and coexistence of multicast terrestrial communication systems with area optimized channel assignments. , 2008, , .		2
90	Using Cognitive Interference Routing to Avoid Congested Areas in Wireless Ad Hoc Networks. , 2009, , .		2

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91	A Novel Guaranteed Handover Scheme for HAP Communications Systems with Adaptive Modulation and Coding. , 2010, , .		2
92	Cognitive Radio for UWB spectrum sharing and power allocation. , 2010, , .		2
93	Inter-HAP handoff analysis for multi-cell short-endurance HAP communications systems. International Journal of Satellite Communications and Networking, 2011, 29, 367-381.	1.8	2
94	Reciprocal learning for cognitive medium access. , 2013, , .		2
95	Cell division, migration and death for energy efficient 5G ultra-small cell networks. , 2014, , .		2
96	Software defined network for multi-tenancy resource sharing in backhaul networks. , 2015, , .		2
97	Millimetre wave backhaul/fronthaul deployments for ultra-dense outdoor small cells. , 2016, , .		2
98	Design and Convergence Analysis of an IIC-based BICM-ID Receiver for FBMC-QAM Systems. IEEE Open Journal of the Communications Society, 2020, , 1-1.	6.9	2
99	Multi-User Interference Cancellation for Uplink FBMC-Based Multiple Access Channel. IEEE Communications Letters, 2021, 25, 2733-2737.	4.1	2
100	Delivering Extended Cellular Coverage and Capacity Using High-Altitude Platforms. Electronics (Switzerland), 2022, 11, 1508.	3.1	2
101	Capacity effects on terrestrial broadband wireless access networks, operating in the LMDS frequency band, during rainfall conditions. , 0, , .		1
102	Propagation Impairment Countermeasures in Mobile Stratospheric Operating Environment. , 2009, , .		1
103	DRMA-AR: Distributed reservation multiple access with adaptive requests for wireless networks. , 2011, , .		1
104	Impulse Radio UWB Pulse Shaping for Cognitive Radio Applications. Wireless Personal Communications, 2012, 63, 675-688.	2.7	1
105	Dynamic topology management in flexible aerial-terrestrial networks for public safety. , 2014, , .		1
106	Performance Evaluation of Interference Bound Backhaul Links in High Capacity Wireless Networks. Wireless Personal Communications, 2014, 74, 1129-1145.	2.7	1
107	Intelligent Secondary LTE Spectrum Sharing in High Capacity Cognitive Cellular Systems. , 2015, , .		1
108	Millimetre wave backhaul/fronthaul deployments for ultra-dense outdoor small cells. , 2016, , .		1

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109	Hotspot-Oriented Green Frameworks for Ultrasmall Cell Cloud Radio Access Networks. IEEE Transactions on Vehicular Technology, 2018, 67, 703-717.	6.3	1
110	Deep Learning Assisted Fixed Wireless Access Network Coverage Planning. IEEE Access, 2021, 9, 124530-124540.	4.2	1
111	The effects of building geometric displacement error on urban microcellular ray based modelling. , 0, , .		0
112	Modelling the performance of an all-informed net which incorporates distributed dynamic channel assignment. , 0, , .		0
113	Integrated air interface multiple access schemes for broadband wireless communications. , 0, , .		0
114	An LMDS access protocol for advanced high-speed and bandwidth intensive wireless applications. , 0, , .		0
115	Receiver based interference protection for MAC protocol in WSNs. , 2010, , .		0
116	Multiple access with multi-dimensional learning for cognitive radio in open spectrum. , 2011, , .		0
117	Cognitive UWB spectrum sharing and power allocation in a multipath fading channel. , 2011, , .		0
118	Interference aware, energy efficient resource allocation for beyond next generation mobile networks. , 2013, , .		0
119	Using Bayesian networks for convergence analysis of intelligent dynamic spectrum access algorithms. , 2015, , .		0
120	Implementation of uplink networkâ€coded modulation for twoâ€hop networks. Transactions on Emerging Telecommunications Technologies, 2019, 30, e3594.	3.9	0