Petros Nicopolitidis

List of Publications by Year
in descending order

120 papers	1,005 citations	516710 16 h-index	552781 26 g-index
121 all docs	121 docs citations	121 times ranked	533 citing authors

#	Article	IF	Citations
1	Using learning automata for adaptive push-based data broadcasting in asymmetric wireless environments. IEEE Transactions on Vehicular Technology, 2002, 51, 1652-1660.	6.3	83
2	Learning automata-based polling protocols for wireless LANs. IEEE Transactions on Communications, 2003, 51, 453-463.	7.8	80
3	Architectures and Bandwidth Allocation Schemes for Hybrid Wireless-Optical Networks. IEEE Communications Surveys and Tutorials, 2015, 17, 427-468.	39.4	60
4	Adaptive wireless networks using learning automata. IEEE Wireless Communications, 2011, 18, 75-81.	9.0	54
5	Exploiting Locality of Demand to Improve the Performance of Wireless Data Broadcasting. IEEE Transactions on Vehicular Technology, 2006, 55, 1347-1361.	6.3	37
6	Distributed protocols for ad hoc wireless LANs: a learning-automata-based approach. Ad Hoc Networks, 2004, 2, 419-431.	5.5	31
7	Clustering-Driven Wireless Data Broadcasting. IEEE Wireless Communications, 2009, 16, 80-87.	9.0	27
8	On the Analytical Performance Optimization of Wireless Data Broadcasting. IEEE Transactions on Vehicular Technology, 2010, 59, 884-895.	6.3	25
9	Adaptive Data Broadcasting in Underwater Wireless Networks. IEEE Journal of Oceanic Engineering, 2010, 35, 623-634.	3.8	25
10	Energy-Efficient Lightpath Establishment in Backbone Optical Networks Based on Ant Colony Optimization. Journal of Lightwave Technology, 2016, 34, 5534-5541.	4.6	24
11	Energy-Aware Algorithms for IP Over WDM Optical Networks. Journal of Lightwave Technology, 2016, 34, 2856-2866.	4.6	23
12	Priority-Oriented Adaptive Control With QoS Guarantee for Wireless LANs. IEEE Transactions on Vehicular Technology, 2007, 56, 1761-1772.	6.3	20
13	Continuous Flow Wireless Data Broadcasting for High-Speed Environments. IEEE Transactions on Broadcasting, 2009, 55, 260-269.	3.2	20
14	Demand-Based Computation Offloading Framework for Mobile Devices. IEEE Systems Journal, 2018, 12, 3693-3702.	4.6	19
15	On Performance Improvement of Wireless Push Systems via Smart Antennas. IEEE Transactions on Communications, 2012, 60, 312-316.	7.8	16
16	Efficient Resource Allocation in Tactile-Capable Ethernet Passive Optical Healthcare LANs. IEEE Access, 2020, 8, 52981-52995.	4.2	16
17	A new approach to the design of MAC protocols for wireless LANs: combining QoS guarantee with power saving. IEEE Communications Letters, 2006, 10, 537-539.	4.1	14
18	Multiple-Antenna Data Broadcasting for Environments With Locality of Demand. IEEE Transactions on Vehicular Technology, 2007, 56, 2807-2816.	6.3	14

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19	A blockchain-based secure routing protocol for opportunistic networks. Journal of Ambient Intelligence and Humanized Computing, 2022, 13, 2191-2203.	4.9	14
20	TRAP: a high performance protocol for wireless local area networks. Computer Communications, 2002, 25, 1058-1065.	5.1	13
21	Third generation and beyond wireless systems. Communications of the ACM, 2003, 46, 120-124.	4.5	13
22	On the Use of FDTD and Ray-Tracing Schemes in the Nanonetwork Environment. IEEE Communications Letters, 2014, 18, 1823-1826.	4.1	13
23	Carrier-sense-assisted adaptive learning MAC protocols for distributed wireless LANs. International Journal of Communication Systems, 2005, 18, 657-669.	2.5	12
24	A New Class of Wireless Push Systems. IEEE Transactions on Vehicular Technology, 2009, 58, 4529-4539.	6.3	12
25	Using learning automata for adaptively adjusting the downlink-to-uplink ratio in IEEE 802.16e wireless networks. , 2011, , .		12
26	Performance Increase for Highly-Loaded RoF Access Networks. IEEE Communications Letters, 2015, 19, 1628-1631.	4.1	12
27	A Learning-Automata-Based Congestion-Aware Scheme for Energy-Efficient Elastic Optical Networks. IEEE Access, 2020, 8, 101978-101992.	4.2	12
28	On lowâ€complexity adaptive wireless pushâ€based dataâ€‰broadcasting. International Journal of Communication Systems, 2014, 27, 194-200.	2.5	10
29	On the Use of Learning Automata in Tuning the Channel Split Ratio of WiMAX Networks. IEEE Systems Journal, 2015, 9, 651-663.	4.6	10
30	Efficiency and fairness improvement for elastic optical networks using reinforcement learning-based traffic prediction. Journal of Optical Communications and Networking, 2022, 14, 25.	4.8	10
31	A Novel Method of Serving Multimedia and Background Traffic in Wireless LANs. IEEE Transactions on Vehicular Technology, 2008, 57, 3263-3267.	6.3	9
32	Towards a fair and efficient downlink bandwidth distribution in XG-PON frameworks. , 2014, , .		8
33	Performance fairness across multiple applications in wireless push systems. International Journal of Communication Systems, 2015, 28, 161-166.	2.5	8
34	Qualityâ€ofâ€serviceâ€aware fair bandwidth allocation scheme for fibre wireless networks. IET Networks, 2016, 5, 56-63.	1.8	8
35	Contract Theory Based Medium Access Contention Resolution in TDMA Cognitive Radio Networks. IEEE Transactions on Vehicular Technology, 2019, 68, 8026-8035.	6.3	8
36	Hop distanceâ€"based bandwidth allocation technique for elastic optical networks. International Journal of Communication Systems, 2020, 33, e4360.	2.5	8

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37	Reinforcement Learning in Traffic Prediction of Core Optical Networks using Learning Automata. , 2020, , .		8
38	Design alternatives for wireless local area networks. International Journal of Communication Systems, 2001, 14, 1-42.	2.5	7
39	Security in wireless sensor networks. Security and Communication Networks, 2009, 2, 101-103.	1.5	7
40	On the use of prediction in Passive Optical LANs for healthcare latency-stringent applications. , 2019, , .		7
41	A Multilevel TDMA Approach for IoT Applications With WuR Support. IEEE Internet of Things Journal, 2022, 9, 22785-22795.	8.7	7
42	The economics of wireless networks. Communications of the ACM, 2004, 47, 83-86.	4.5	6
43	Adaptive wireless push system for multichannel environments with single-receiver clients. Electronics Letters, 2011, 47, 147.	1.0	6
44	RLAM: A Dynamic and Efficient Reinforcement Learning-Based Adaptive Mapping Scheme in Mobile WiMAX Networks. Mobile Information Systems, 2014, 10, 173-196.	0.6	6
45	IFAISTOS: A fair and flexible resource allocation policy for next-generation passive optical networks. , 2014, , .		6
46	On the efficient use of multiple channels by singleâ€receiver clients in wireless data broadcasting. International Journal of Communication Systems, 2014, 27, 513-520.	2.5	6
47	Addressing the interdependence in providing fair and efficient bandwidth distribution in hybrid opticalâ€wireless networks. International Journal of Communication Systems, 2016, 29, 1658-1682.	2.5	6
48	Towards power consumption in optical networks: a cognitive predictionâ€based technique. International Journal of Communication Systems, 2017, 30, e2981.	2.5	6
49	Using bacterial concentration as means of dissipating information through chemotaxis. Nano Communication Networks, 2017, 13, 1-8.	2.9	6
50	Fast Energy-Efficient Design in Elastic Optical Networks Based on Signal Overlap. IEEE Access, 2019, 7, 113931-113941.	4.2	6
51	The anatomy of bacteria-inspired nanonetworks: Molecular nanomachines in message dissemination. Nano Communication Networks, 2019, 21, 100244.	2.9	6
52	Exploiting IPâ€layer traffic prediction analytics to allocate spectrum resources using swarm intelligence. International Journal of Communication Systems, 2020, 33, e4516.	2.5	6
53	A Traffic Prediction assisted Routing Algorithm for Elastic Optical Networks. , 2021, , .		6
54	Dynamic Threshold Reconfiguration Mechanisms for Green IP-Over-WDM Networks. Journal of Lightwave Technology, 2016, 34, 4354-4363.	4.6	5

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55	Reserved energy-aware virtual topology management for IP-over-WDM optical networks. Optical Switching and Networking, 2019, 31, 72-85.	2.0	5
56	Performance Evaluation of Slotted ALOHA based IoT Networks under Asymmetric Traffic. , 2020, , .		5
57	Efficient algorithms for constructing broadcast disks programs inÂasymmetric communication environments. Telecommunication Systems, 2009, 41, 185-209.	2.5	4
58	Parallel Data Broadcasting for Optimal Client Service Ratio. IEEE Communications Letters, 2012, 16, 1741-1743.	4.1	4
59	Energy-aware lightpath routing in optical networks based on adaptive heuristics. , 2014, , .		4
60	Green networks: An energy-oriented model for IP over WDM optical networks. , 2014, , .		4
61	Broadcast Levels: Efficient and Lightweight Schedule Construction for Push-Based Data Broadcasting Systems. IEEE Transactions on Broadcasting, 2015, 61, 470-481.	3.2	4
62	An effective resource allocation medium access control protocol for radio-over-fiber access networks based on wavelength reuse. Computer Communications, 2016, 88, 45-56.	5.1	4
63	Proactive encryption of personal area networks and small office-home office networks under advanced encryption standard application. Security and Privacy, 2018, 1, e10.	2.7	4
64	Earthquake Tolerant Energy Aware Algorithms: A New Approach to the Design of WDM Backbone Networks. IEEE Transactions on Green Communications and Networking, 2018, 2, 1164-1173.	5.5	4
65	POAC-QG: Priority Oriented Adaptive Control with QoS Guarantee for wireless LANs. , 2005, , .		3
66	Performance optimization of an adaptive wireless push system in environments with locality of demand. Computer Communications, 2006, 29, 2542-2549.	5.1	3
67	An analytical approach to the design of wireless broadcast disks systems. , 2009, , .		3
68	Performance Evaluation of Acoustic Underwater Data Broadcasting Exploiting the Bandwidth-Distance Relationship. Mobile Information Systems, 2011, 7, 285-298.	0.6	3
69	Green optical backbone networks: virtual topology adaptation using a page rankâ€based rating system. International Journal of Communication Systems, 2015, 28, 2112-2121.	2.5	3
70	On the Use of Learning Automata for Energy Saving in Optical Backbone Networks. Electronic Notes in Discrete Mathematics, 2016, 51, 15-22.	0.4	3
71	Efficient mobility prediction scheme for pervasive networks. International Journal of Communication Systems, 2018, 31, e3520.	2.5	3
72	Intelligent and Efficient Channel Allocation in Smart Grid Neighborhood Area Network. , 2018, , .		3

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73	An Adaptive LoRaWAN MAC Protocol for Event Detection Applications. Sensors, 2022, 22, 3538.	3.8	3
74	3G wireless systems and beyond: a review. , 0, , .		2
75	An Adaptive Wireless Push System for High-Speed Data Broadcasting. , 0, , .		2
76	Priority Oriented Adaptive Polling for wireless LANs. , 2006, , .		2
77	LE-WiMARK: An intelligent power-efficient ad hoc MAC protocol with busy tone and power control. , 2008, , .		2
78	A MAC Protocol for Bursty Traffic Ad-Hoc Wireless LANs with Energy Efficiency. Wireless Personal Communications, 2012, 67, 165-173.	2.7	2
79	Special issue on big data intelligence in communication systems. International Journal of Communication Systems, 2018, 31, e3800.	2.5	2
80	Exploiting the Signal Overlap Technique for Energy Efficiency in Elastic Optical Networks. , 2018, , .		2
81	A Novel and Efficient Geocasting in OppNets. , 2018, , .		2
82	Towards energy efficiency in virtual topology design of elastic optical networks. International Journal of Communication Systems, 2018, 31, e3727.	2.5	2
83	Anchorâ€free distance estimation: A new approach to distance estimation for multihop ad hoc wireless networks. International Journal of Communication Systems, 2018, 31, e3722.	2.5	2
84	Directional transmission in biological nanonetworks via positive Chemotaxis. , 2019, , .		2
85	A Novel Hop-distance Sensitive Approach to Elastic Optical Networks RSA Algorithms. , 2019, , .		2
86	On the Effect of Traffic Burstiness in LoRaWAN Networks' Performance. , 2020, , .		2
87	An adaptive MAC protocol for ad-hoc wireless LANs. , 2003, , .		1
88	A neural-based MAC protocol for distributed wireless LANs. , 0, , .		1
89	A new approach to the design of MAC protocols for wireless LANs: combining QoS guarantee with power saving. IEEE Communications Letters, 2006, 10, 537-539.	4.1	1
90	A Low Power Adaptive Mac Protocol for Infrastructure Wireless LANS. , 2007, , .		1

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91	A Mac Protocol for Ad-Hoc Wireless Lans with Reduced Energy Consumption. , 2009, , .		1
92	A heuristic approach for constructing improved broadcast schedules. , 2010, , .		1
93	Bandwidth-efficient underwater data broadcasting. , 2010, , .		1
94	Performance Acceleration in a Push-Based Wireless Network Considering Data Item Popularity. , 2011, , .		1
95	Editorial: Guest Editorial: Energy Aware Wireless Network Protocols. IET Communications, 2012, 6, 2115.	2.2	1
96	Distance Learning: A Postgraduate PerCom Program. IEEE Pervasive Computing, 2013, 12, 83-85.	1.3	1
97	Energy efficient optical backbone networks: A dynamic threshold approach. , 2014, , .		1
98	Minimal Wireless Broadcast Schedules for Multi-objective Pursuits. IEEE Transactions on Vehicular Technology, 2014, , 1-1.	6.3	1
99	ARES: An Adaptive, Resilient, Estimation Scheme for Enforcing Bandwidth Allocation in XG-PON Systems. Communications in Computer and Information Science, 2015, , 131-151.	0.5	1
100	A Hybrid Link-TDMA MAC Protocol for Conventional and Radio over Fiber WLANs. Wireless Communications and Mobile Computing, 2020, 2020, 1-15.	1.2	1
101	Quantitative model checking for assessing the energy impact of a <scp>MITM</scp> attack on <scp>EPONs</scp>. Internet Technology Letters, 2022, 5, e277.	1.9	1
102	Adapting Spectrum Resources using Predicted IP Traffic in Optical Networks. , 2020, , .		1
103	A neural approach to adaptive MAC protocols for wireless LANs. , 2004, , .		0
104	Using Directional Antennas to Increase the Performance of Data Broadcasting Systems in Environments with Locality of Demand. , 2005, , .		0
105	Boosting the performance of an adaptive push system in environments with locality of demand. , 2005, , .		0
106	On regional performance improvement of an adaptive wireless push system in environments with locality of demand. , 2005, , .		0
107	WSN08-1: Performance Acceleration of Adaptive Wireless Data Broadcasting System for High Data Rate Environments. IEEE Global Telecommunications Conference (GLOBECOM), 2006, , .	0.0	0
108	A New Hybrid Medium Access Mechanism with Integrated QoS Support for Wireless LANs. , 2007, , .		0

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109	A Power-Efficient Approach to Adaptive Polling Protocols for Wireless LANs. IEEE Communications Letters, 2007, 11, 483-485.	4.1	0
110	A new high rate adaptive wireless data dissemination scheme. Computer Communications, 2007, 30, 957-964.	5.1	0
111	Medium access control protocols for wireless LANs [Guest Editorial]. IEEE Wireless Communications, 2008, 15, 20-21.	9.0	0
112	Novel medium control for wireless networks: providing total QoS and energy conservation. , 2008, , .		0
113	A New Class of Adaptive Wireless Push Systems Using Multiple Smart Antennas. , 2008, , .		0
114	On the performance of adaptive Wireless Push Systems in high bit rate environments. , 2009, , .		0
115	A new algorithm for low-complexity schedule construction in wireless push systems. , 2013, , .		0
116	Security of eâ€systems. Security and Communication Networks, 2014, 7, 322-324.	1.5	0
117	Editorial for the special issue on Energyâ€efficient Networking. International Journal of Communication Systems, 2017, 30, e3311.	2.5	0
118	CITS 2017 general chairs' message. , 2017, , .		0
119	On efficient downlink channel aggregation in adaptive wireless push systems. International Journal of Communication Systems, 2017, 30, e3262.	2.5	0
120	OAP-WMN: optimised and secure authentication protocol for wireless mesh networks. International Journal of Security and Networks, 2019, 14, 205.	0.2	0