

The Evolution of MAC Protocols in Wireless Sensor Networks

IEEE Communications Surveys and Tutorials

15, 101-120

DOI: [10.1109/surv.2012.040412.00105](https://doi.org/10.1109/surv.2012.040412.00105)

Citation Report

#	ARTICLE	IF	CITATIONS
1	An Energy efficient scheduling scheme for wireless sensor networks. , 2012, , .		1
2	EE-MAC: Energy efficient sensor MAC layer protocol. , 2013, , .		3
3	DPCF-M: A Medium Access Control protocol for dense Machine-to-Machine area networks with dynamic gateways. , 2013, , .		15
4	Energy performance of distributed queuing access in Machine-to-Machine networks with idle-to-saturation transitions. , 2013, , .		10
5	Dynamic Timed Energy Efficient and data collision free MAC protocol for wireless sensor networks. , 2013, , .		1
6	On the use of the 433 MHz band to improve the energy efficiency of M2M communications. , 2013, , .		2
7	Wake-up radio as an energy-efficient alternative to conventional wireless sensor networks MAC protocols. , 2013, , .		15
8	Asynchronous data forwarding strategy to reduce forwarding delay in energy harvesting wireless sensor networks. Electronics Letters, 2013, 49, 1492-1494.	0.5	3
9	Block acknowledgment mechanisms for the optimization of channel use in wireless sensor networks. , 2013, , .		5
10	TAS-MAC: A traffic-adaptive synchronous MAC protocol for wireless sensor networks. , 2013, , .		5
11	Performance analysis of synchronous and receiver initiated MAC protocols under varying traffic density over Wireless Sensor Networks. , 2014, , .		0
12	Modeling duty-cycling MAC protocols with pipelined scheduling for linear sensor networks. , 2014, , .		3
13	Resource-constrained medium access control protocol for wearable devices. , 2014, , .		3
14	Biologically inspired QoS aware routing protocol to optimize lifetime in Sensor Networks. , 2014, , .		9
15	A Cross-Layer Design for Data Collecting of the UAV-Wireless Sensor Network System. , 2014, , .		9
16	A Metric for Evaluating Base Station Anonymity in Acknowledgement-Based Wireless Sensor Networks. , 2014, , .		6
17	Advent. , 2014, , .		1
18	Block acknowledgment in IEEE 802.15.4 by employing DSSS and CSS PHY layers. , 2014, , .		0

#	ARTICLE	IF	CITATIONS
19	Energy-Efficient Boarder Node Medium Access Control Protocol for Wireless Sensor Networks. Sensors, 2014, 14, 5074-5117.	2.1	58
20	EMBMAC: An efficient multihop broadcast based hybrid MAC protocol for wireless sensor networks. , 2014, , .		0
21	UMAC. , 2014, , .		0
22	A hybrid mobile environmental and population density management system for smart poultry farms. Computers and Electronics in Agriculture, 2014, 109, 287-301.	3.7	37
23	The Study of MAC Protocol for Industrial Wireless Sensor Network Based on Ultra-wide Band. , 2014, , .		2
24	Dynamic duty-cycled MAC for wireless sensor networks with energy harvesters. , 2014, , .		4
25	EHMBA: An energy efficient hybrid MAC multihop broadcast protocol for asynchronous duty-cycled wireless sensor networks. , 2014, , .		0
26	A Survey on Protocols, Platforms and Simulation Tools for Wireless Sensor Networks. International Journal of Energy Information and Communications, 2014, 5, 17-34.	0.2	7
27	Taxonomy and Evaluations of Low-Power Listening Protocols for Machine-to-Machine Networks. Journal of Applied Mathematics, 2014, 2014, 1-12.	0.4	2
28	EE-Hybrid MAC Protocol for Wireless Sensor Networks. Applied Mechanics and Materials, 0, 573, 407-411.	0.2	1
29	snapMac: A generic MAC/PHY architecture enabling flexible MAC design. Ad Hoc Networks, 2014, 17, 37-59.	3.4	11
30	M2M Service Platforms: Survey, Issues, and Enabling Technologies. IEEE Communications Surveys and Tutorials, 2014, 16, 61-76.	24.8	266
31	Wireless sensor networks: a survey on recent developments and potential synergies. Journal of Supercomputing, 2014, 68, 1-48.	2.4	821
32	Survey of synchronous MAC protocols for Wireless Sensor Networks. , 2014, , .		13
33	Wireless Sensor Systems for Space and Extreme Environments: A Review. IEEE Sensors Journal, 2014, 14, 3955-3970.	2.4	66
34	Survey on the Characterization and Classification of Wireless Sensor Network Applications. IEEE Communications Surveys and Tutorials, 2014, 16, 1860-1890.	24.8	208
35	Empirical model for improving throughput of 802.11 MAC. , 2014, , .		2
36	Pheromone termite (PT) model to provide robust routing over Wireless Sensor Networks. , 2014, , .		6

#	ARTICLE	IF	CITATIONS
37	SnowFort: An Open Source Wireless Sensor Network for Data Analytics in Infrastructure and Environmental Monitoring. IEEE Sensors Journal, 2014, 14, 4253-4263.	2.4	28
38	Performance Analysis and Optimization of TDMA Network With Wireless Energy Transfer. IEEE Transactions on Wireless Communications, 2014, 13, 4205-4219.	6.1	23
39	Interference-aware energy-efficient cross-layer design for healthcare monitoring applications. Computer Networks, 2014, 74, 64-77.	3.2	18
40	A Survey of Recent Developments in Home M2M Networks. IEEE Communications Surveys and Tutorials, 2014, 16, 98-114.	24.8	234
41	Adaptive TDMA-based MAC protocol in energy harvesting wireless body area network for mobile health. , 2015, , .		5
42	Swarming Medium Access Control Protocol for Large-Scale Wireless Sensor Networks. , 2015, , .		0
43	eQueue-MAC: Enhanced traffic adaptive hybrid MAC protocol with IEEE 802.15.4e features for industrial applications. , 2015, , .		0
44	An Energy Efficient MAC Protocol for Linear WSNs. Chinese Journal of Electronics, 2015, 24, 725-728.	0.7	12
45	Performance analysis of wireless sensor networks with IEEE 802.15.4 MAC based on variation in packet size. , 2015, , .		5
46	MAC Protocols for Energy Harvesting Wireless Sensor Networks: Survey. ETRI Journal, 2015, 37, 804-812.	1.2	42
47	WSN infrastructure for green campus development. , 2015, , .		1
48	A statistical frame based TDMA protocol for human body communication. BioMedical Engineering OnLine, 2015, 14, 65.	1.3	13
49	Efficient Sparse Signal Transmission over a Lossy Link Using Compressive Sensing. Sensors, 2015, 15, 19880-19911.	2.1	11
50	Extending the Functionality of Pymote: Low Level Protocols and Simulation Result Analysis. Internatioonal Journal of Sensor Networks and Data Communications, 2015, 04, .	0.1	4
51	Block Design-Based Asynchronous Neighbor Discovery Protocol for Wireless Sensor Networks. Journal of Sensors, 2015, 2015, 1-12.	0.6	8
52	A Secure Scheme Against Power Exhausting Attacks in Hierarchical Wireless Sensor Networks. IEEE Sensors Journal, 2015, 15, 3590-3602.	2.4	56
53	A MAC Protocol for Data Gathering in Linear Wireless Sensor Network Based on Selective Relay Nodes. Communications in Computer and Information Science, 2015, , 321-331.	0.4	1
54	A novel link scheduler for personalized broadcast in multi Tx/Rx Wireless Mesh Networks. , 2015, , .		2

#	ARTICLE	IF	CITATIONS
55	Key revocation in wireless sensor networks: a survey on a less-addressed yet vital issue. International Journal of Ad Hoc and Ubiquitous Computing, 2015, 18, 3.	0.3	3
56	REA-WSN: Intercluster routing algorithm for energy optimization in wireless sensor networks. , 2015, , .		1
57	A Real Time Autonomous Soldier Health Monitoring and Reporting System Using COTS Available Entities. , 2015, , .		7
58	Minimum delay scheduling for raw-data convergecast in wireless field networks. , 2015, , .		1
59	Cross-layer mobility-aware MAC protocol for cognitive radio sensor network. , 2015, , .		2
60	Communication in Cyber-Physical Systems. , 2015, , .		5
61	GRAPMAN: Gradual power manager for consistent throughput of energy harvesting wireless sensor nodes. , 2015, , .		11
62	Low-complexity collision detection scheme using pseudo-coded ON-OFF pilot transmission per-packet for Wireless Sensor Networks. , 2015, , .		0
63	A harvesting-rate oriented self-adaptive algorithm in Energy-Harvesting Wireless Body Area Networks. , 2015, , .		4
64	An efficient MAC scheme in wireless sensor network with energy harvesting (EHWSN) for cloud based applications. , 2015, , .		14
65	Energy-efficient medium access control for energy harvesting communications. IEEE Transactions on Consumer Electronics, 2015, 61, 402-410.	3.0	27
66	A queue-based scheduling algorithm for PCE-enabled Industrial Internet of Things networks. , 2015, , .		15
67	Wireless Injection Attacks Based on Fake Data Injection in TinyOS. , 2015, , .		2
68	Optimal beacon interval for TDMA-based MAC in wireless sensor networks. , 2015, , .		0
69	MAC protocol for volcano monitoring using a wireless sensor network. , 2015, , .		5
70	Modeling and Analysis of Reservation Frame Slotted-ALOHA in Wireless Machine-to-Machine Area Networks for Data Collection. Sensors, 2015, 15, 3911-3931.	2.1	5
71	DCPVP: Distributed Clustering Protocol Using Voting and Priority for Wireless Sensor Networks. Sensors, 2015, 15, 5763-5782.	2.1	11
72	Operational State Scheduling of Relay Nodes in Two-Tiered Wireless Sensor Networks. IEEE Systems Journal, 2015, 9, 686-693.	2.9	9

#	ARTICLE	IF	CITATIONS
73	Reliability improvement and the importance of power consumption optimization in wireless sensor networks. , 2015, , .		7
74	Dynamic Timed Energy Efficient and Data Collision Free MAC Protocol for Wireless Sensor Networks. IEEE Latin America Transactions, 2015, 13, 416-421.	1.2	2
75	Joint routing, channel allocation and power control for real-life wireless sensor networks. Transactions on Emerging Telecommunications Technologies, 2015, 26, 945-956.	2.6	10
76	Time-synchronized Wireless Sensor Network for structural health monitoring applications in railway environments. , 2015, , .		6
77	RM-MAC: A routing-enhanced multi-channel MAC protocol in duty-cycle sensor networks. , 2015, , .		2
78	DS-MAC: An energy efficient demand sleep MAC protocol with low latency for wireless sensor networks. Journal of Network and Computer Applications, 2015, 58, 155-164.	5.8	28
79	The adaptive Cognitive Radio Sensor Network: A perspective towards the feasibility. , 2015, , .		4
80	Exploiting frame length of 802.15.4g signals for wake-up control in sensor networks. , 2015, , .		1
81	Comparison of Energy Efficient Data Collection Techniques in Wireless Sensor Network. Procedia Computer Science, 2015, 57, 146-151.	1.2	12
82	Resilient Round Robin. ACM Transactions on Sensor Networks, 2015, 11, 1-38.	2.3	0
83	M2M Communications in 3GPP LTE/LTE-A Networks: Architectures, Service Requirements, Challenges, and Applications. IEEE Communications Surveys and Tutorials, 2015, 17, 525-549.	24.8	293
84	Application of Wireless Sensor and Actuator Networks to Achieve Intelligent Microgrids: A Promising Approach towards a Global Smart Grid Deployment. Applied Sciences (Switzerland), 2016, 6, 61.	1.3	35
85	A Power-Optimized Cooperative MAC Protocol for Lifetime Extension in Wireless Sensor Networks. Sensors, 2016, 16, 1630.	2.1	10
86	An Energy-Efficient MAC Protocol for Medical Emergency Monitoring Body Sensor Networks. Sensors, 2016, 16, 385.	2.1	13
87	An Efficient Interactive Model for On-Demand Sensing-As-A-Service of Sensor-Cloud. Sensors, 2016, 16, 992.	2.1	28
88	Asymmetric Block Design-Based Neighbor Discovery Protocol in Sensor Networks. Sustainability, 2016, 8, 431.	1.6	2
89	Load-balanced energy efficient clustering protocol for wireless sensor networks. IET Wireless Sensor Systems, 2016, 6, 67-73.	1.3	41
90	M2M energy efficiency routing protocol MLCMS by using 6LoWPAN based on IoE. , 2016, , .		3

#	ARTICLE	IF	CITATIONS
91	Analytical and Experimental Evaluation of Wake-Up Receivers Based Protocols. , 2016, , .		13
93	JetNet: A proposed protocol for reliable packet delivery in low-power IoT applications. , 2016, , .		0
94	A Survey on Intelligent MAC Layer Jamming Attacks and Countermeasures in WSNs. , 2016, , .		14
95	Leveraging on Mobility Models for Sensor Network Lifetime Modeling. , 2016, , .		3
96	Poster: Comparative study of EM-MAC and TSCH/orchestra for IoT. , 2016, , .		1
97	On MAC layer protocols towards internet of things: From IEEE802.15.4 to IEEE802.15.4e. , 2016, , .		1
98	An offset based global sleeping schedule for self-organizing wireless sensor networks. , 2016, , .		0
99	Priority-aware hybrid scheduling for fast, energy-efficient max function computation in single-hop networks. IET Communications, 2016, 10, 2606-2612.	1.5	0
100	L-MAC: A wake-up time self-learning MAC protocol for wireless sensor networks. Computer Networks, 2016, 105, 33-46.	3.2	36
101	TRM-MAC: A TDMA-based reliable multicast MAC protocol for WSNs with flexibility to trade-off between latency and reliability. Computer Networks, 2016, 104, 79-93.	3.2	8
103	Energy-efficient topology construction for multi-attribute data gathering in WSNs. , 2016, , .		2
104	Multi-channel and cognitive radio approaches for wireless sensor networks. Computer Communications, 2016, 94, 30-45.	3.1	18
105	A New Energy Prediction Algorithm for Energy-Harvesting Wireless Sensor Networks With Q-Learning. IEEE Access, 2016, 4, 5755-5763.	2.6	98
106	Adaptive-opportunistic Aloha: A media access control protocol for unmanned aerial vehicle wireless sensor network systems. International Journal of Distributed Sensor Networks, 2016, 12, 155014771666278.	1.3	5
107	CMCS: a cross-layer mobility-aware MAC protocol for cognitive radio sensor networks. Eurasip Journal on Wireless Communications and Networking, 2016, 2016, .	1.5	14
108	Energy-efficient MAC schemes for Delay-Tolerant Sensor Networks. , 2016, , .		3
109	Optimal beacon scheduling for low-duty-cycle sensor networks. , 2016, , .		1
110	An architecture for sender-based addressing for selective sensor network wake-up receivers. , 2016, , .		7

#	ARTICLE	IF	CITATIONS
111	Identified improvements of wireless sensor networks in smart grid: issues, requirements and challenges. International Journal of Smart Grid and Green Communications, 2016, 1, 3.	0.2	4
112	A comparative study on popular MAC protocols for mixed Wireless Sensor Networks: From implementation viewpoint. Computer Science Review, 2016, 22, 107-134.	10.2	28
113	Parametric analysis of a novel reconfigurable Wireless Sensor Network architecture. , 2016, , .		2
114	A dynamic TDMA protocol based on correlation in Wireless Sensor Networks. , 2016, , .		1
115	Clustering Analysis in Wireless Sensor Networks: The Ambit of Performance Metrics and Schemes Taxonomy. International Journal of Distributed Sensor Networks, 2016, 12, 4979142.	1.3	60
116	E^2 -MAC: Energy Efficient Medium Access for Massive M2M Communications. IEEE Transactions on Communications, 2016, 64, 4720-4735.	4.9	59
117	A dynamic cross-layer and energy-efficient protocol for wireless sensor networks. , 2016, , .		2
118	TDMA-based MAC protocols for wireless sensor networks: A survey and comparative analysis. , 2016, , .		18
119	Medium access prioritizing in the heterogeneous low-rate wireless PANs. , 2016, , .		0
120	Event-Triggered Sleeping for Synchronous DC MAC IN WSNs: Mechanism and DTMC Modeling. , 2016, , .		4
121	Implementation of Mobile Sensing Platform with a Tree Based Sensor Network. Smart Innovation, Systems and Technologies, 2016, , 213-225.	0.5	1
122	Medium access control protocols for wireless sensor networks with ambient energy. , 2016, , .		0
123	Pymote 2.0: Development of an Interactive Python Framework for Wireless Network Simulations. IEEE Internet of Things Journal, 2016, 3, 1182-1188.	5.5	11
124	TAS-MAC. ACM Transactions on Sensor Networks, 2016, 12, 1-30.	2.3	14
126	A Traffic Adaptive Multi-Channel MAC Protocol with Dynamic Slot Allocation for WSNs. IEEE Transactions on Mobile Computing, 2016, 15, 1600-1613.	3.9	56
127	Optimal scheduling for energy harvesting mobile sensing devices. Computer Communications, 2016, 75, 62-70.	3.1	7
128	Performance Analysis of Adaptive Routing Structure for Wireless Sensor Network Based on Load Balancing. Wireless Personal Communications, 2016, 90, 473-485.	1.8	1
129	Modeling and Analyzing Duty-Cycling Pipelined-Scheduling MAC for Linear Sensor Networks. IEEE Transactions on Vehicular Technology, 2016, 65, 2608-2620.	3.9	15

#	ARTICLE	IF	CITATIONS
130	Nomenclature of Medium Access Control Protocol over Wireless Sensor Networks. IETE Technical Review (Institution of Electronics and Telecommunication Engineers, India), 2016, 33, 160-171.	2.1	8
131	MAC Protocol Design Based on Satellites Presence for Low-Energy Wireless Sensor Networks. Wireless Personal Communications, 2016, 86, 1299-1319.	1.8	1
132	A general model for MAC protocol selection in wireless sensor networks. Ad Hoc Networks, 2016, 36, 189-202.	3.4	14
133	A power-aware MAC layer protocol for real-time communication in wireless embedded systems. Journal of Network and Computer Applications, 2017, 82, 21-34.	5.8	9
134	FTGAF-HEX: fuzzy logic based two-level geographic routing protocol in wireless sensor networks. Microsystem Technologies, 2017, 23, 3443-3455.	1.2	6
135	T-ROME: A simple and energy efficient tree routing protocol for low-power wake-up receivers. Ad Hoc Networks, 2017, 59, 97-115.	3.4	24
136	Performance Analysis and Optimization for SWIPT Wireless Sensor Networks. IEEE Transactions on Communications, 2017, 65, 2291-2302.	4.9	105
137	A Slotted Aloha Message Concentration Protocol for Wireless Sensor Networks. , 2017, , .		2
138	Application-Based Optimization of Multi-Level Clustering in Ad Hoc and Sensor Networks. IEEE Transactions on Wireless Communications, 2017, 16, 4460-4475.	6.1	18
139	Up-Link Capacity Derivation for Ultra-Narrow-Band IoT Wireless Networks. International Journal of Wireless Information Networks, 2017, 24, 300-316.	1.8	4
140	DURI-MAC: A dual channel receiver initiated MAC protocol for wireless sensor network (WSN). , 2017, , .		3
141	An energy prediction algorithm for wind-powered wireless sensor networks with energy harvesting. Energy, 2017, 139, 1275-1280.	4.5	42
142	Bandwidth Efficient Clock Skew Compensation in TDMA-Based Star Topology Wireless Networks. , 2017, , .		0
143	EERC-MAC: Energy efficient Receiver Centric MAC protocol for Wireless Sensor network. , 2017, , .		1
144	C-Sync: Counter-based synchronization for duty-cycled wireless sensor networks. Ad Hoc Networks, 2017, 61, 51-64.	3.4	13
145	Experimental Validation of Energy Harvesting-System Availability Improvement Through Battery Heating. IEEE Sensors Journal, 2017, 17, 3497-3506.	2.4	4
146	Energy efficiency of MAC protocols in low data rate wireless multimedia sensor networks: A comparative study. Ad Hoc Networks, 2017, 56, 141-157.	3.4	37
147	Optimal Power Control in Green Wireless Sensor Networks With Wireless Energy Harvesting, Wake-Up Radio and Transmission Control. IEEE Access, 2017, 5, 501-518.	2.6	43

#	ARTICLE	IF	CITATIONS
148	A Generic Framework for Modeling MAC Protocols in Wireless Sensor Networks. IEEE/ACM Transactions on Networking, 2017, 25, 1489-1500.	2.6	24
149	Energy optimization in wireless sensor networks using duty-cycling approach. , 2017, , .		1
150	A prediction-based asynchronous MAC protocol for heavy traffic load in wireless sensor networks. AEU - International Journal of Electronics and Communications, 2017, 82, 241-250.	1.7	8
151	Review and Classification of Multichannel MAC Protocols for Low-Power and Lossy Networks. IEEE Access, 2017, 5, 19536-19561.	2.6	18
152	Survey and systematic mapping of industrial Wireless Sensor Networks. Journal of Network and Computer Applications, 2017, 97, 96-125.	5.8	74
153	Ultra Low Power Wake-Up Radios: A Hardware and Networking Survey. IEEE Communications Surveys and Tutorials, 2017, 19, 2117-2157.	24.8	193
154	State-of-charge estimation to improve energy conservation and extend battery life of wireless sensor network nodes. , 2017, , .		8
155	Recent MAC protocols for mobility-aware wireless sensor networks " a survey and future directions. , 2017, , .		8
156	DISS-X: Use of two MAC protocols with DISSense for low Power consumption and emergency event detection. , 2017, , .		0
157	Cooperative resynchronization to improve the reliability of colocated IEEE 802.15.4 -TSCH networks in dense deployments. Ad Hoc Networks, 2017, 64, 112-126.	3.4	13
158	Harvesting solar energy for limited-energy problem in wireless sensor networks. , 2017, , .		2
159	MMSMAC: A Multi-mode Medium Access Control Protocol for Wireless Sensor Networks with Latency and Energy-Awareness. Wireless Personal Communications, 2017, 96, 4973-5010.	1.8	6
160	A Cooperative Wireless Sensor Network for Indoor Industrial Monitoring. IEEE Transactions on Industrial Informatics, 2017, 13, 482-491.	7.2	55
161	MAC Protocols With Wake-Up Radio for Wireless Sensor Networks: A Review. IEEE Communications Surveys and Tutorials, 2017, 19, 587-618.	24.8	102
162	A Survey of Multi-Objective Optimization in Wireless Sensor Networks: Metrics, Algorithms, and Open Problems. IEEE Communications Surveys and Tutorials, 2017, 19, 550-586.	24.8	317
163	Multi-Technology Data Collection: Short and Long Range Communications. , 2017, , .		5
164	Spectrum coordination for intelligent wireless Internet of Things networks. , 2017, , .		1
165	Energy-efficient clustering algorithm based on game theory for wireless sensor networks. International Journal of Distributed Sensor Networks, 2017, 13, 155014771774370.	1.3	21

#	ARTICLE	IF	CITATIONS
166	An energy efficient M2M routing protocol for IoT based on 6LoWPAN with a smart sleep mode. , 2017, , .		2
167	Dynamic Duty-Cycle Control for Wireless Sensor Networks Using Artificial Neural Network (ANN). , 2017, , .		6
168	A novel energy-efficient sensor networks' fault diagnosis. , 2017, , .		1
169	Technical report: The design and evaluation of a basinâ€scale wireless sensor network for mountain hydrology. Water Resources Research, 2017, 53, 4487-4498.	1.7	38
170	Performance Evaluation for the Signature Algorithm of ISDSR on Raspberry Pi. , 2017, , .		4
171	Resolving spatial unfairness problem with reduced-handshaking in underwater acoustic sensor network. , 2017, , .		2
172	En-MAC: Environment-aware MAC protocol for WSNs in intertidal environment. , 2017, , .		1
173	Demo abstract: Sender-triggered selective wake-up receiver for low-power sensor networks. , 2017, , .		4
174	CDMA-based MAC protocol for multi-hop wireless sensor networks. , 2017, , .		3
175	Distributed TSCH scheduling: A comparative analysis. , 2017, , .		3
176	Bulk Data Dissemination in Low Power Sensor Networks: Present and Future Directions. Sensors, 2017, 17, 156.	2.1	3
177	Failure detection on wireless sensor network based on comparative study. , 2017, , .		3
178	Fuzzy logic based multihop topology control routing protocol in wireless sensor networks. Microsystem Technologies, 2018, 24, 2357-2369.	1.2	15
179	Self-adaptive implicit contention window adjustment mechanism for QoS optimization in wireless sensor networks. Journal of Network and Computer Applications, 2018, 109, 36-52.	5.8	14
180	A Tutorial on Performance Evaluation and Validation Methodology for Low-Power and Lossy Networks. IEEE Communications Surveys and Tutorials, 2018, 20, 1799-1825.	24.8	31
181	Energy Efficient Link-Delay Aware Routing in Wireless Sensor Networks. IEEE Sensors Journal, 2018, 18, 837-848.	2.4	47
182	A Hierarchical Jammed-Area Mapping Service for Ubiquitous Communication in Smart Communities. , 2018, 56, 92-98.		28
183	An Opportunistic MAC Protocol for Energy-Efficient Wireless Communication in a Dynamic, Cyclical Channel. IEEE Transactions on Green Communications and Networking, 2018, 2, 533-544.	3.5	3

#	ARTICLE	IF	CITATIONS
184	A Proportional Time Allocation Algorithm to Transmit Binary Sensor Decisions for Target Tracking in a Wireless Sensor Network. IEEE Transactions on Signal Processing, 2018, 66, 86-100.	3.2	15
185	FADS : Circular/Spherical Sector based Forwarding Area Division and Adaptive Forwarding Area Selection routing protocol in WSNs. Ad Hoc Networks, 2018, 70, 121-134.	3.4	8
186	A comprehensive review on energy harvesting MAC protocols in WSNs: Challenges and tradeoffs. Ad Hoc Networks, 2018, 71, 117-134.	3.4	95
187	Energy-Harvesting Wireless Sensor Networks (EH-WSNs). ACM Transactions on Sensor Networks, 2018, 14, 1-50.	2.3	247
188	mSync: Physical Layer Frame Synchronization without Preamble Symbols. IEEE Transactions on Mobile Computing, 2018, 17, 2321-2333.	3.9	14
189	Surveillance of sensitive fenced areas using duty-cycled wireless sensor networks with asymmetrical links. Journal of Network and Computer Applications, 2018, 112, 41-52.	5.8	26
190	A survey of hybrid MAC protocols for machine-to-machine communications. Telecommunication Systems, 2018, 69, 141-165.	1.6	5
191	Improving Reliability and Scalability of LoRaWANs Through Lightweight Scheduling. IEEE Internet of Things Journal, 2018, 5, 1830-1842.	5.5	169
192	PD-MAC: Design and Implementation of Polling Distribution-MAC for Improving Energy Efficiency of Wireless Sensor Networks. International Journal of Wireless Information Networks, 2018, 25, 200-208.	1.8	8
193	Adaptive wireless communications under competition and jamming in energy constrained networks. Wireless Networks, 2018, 24, 151-171.	2.0	1
194	Cross-layer cooperative multichannel medium access for internet of things. Peer-to-Peer Networking and Applications, 2018, 11, 504-517.	2.6	4
195	An Adaptive Low-Power Listening Protocol for Wireless Sensor Networks in Noisy Environments. IEEE Systems Journal, 2018, 12, 2162-2173.	2.9	23
196	Definition of Smart Retrofitting: First Steps for a Company to Deploy Aspects of Industry 4.0. Lecture Notes in Mechanical Engineering, 2018, , 161-170.	0.3	40
197	A 3-dimensional group management MAC scheme for mobile IoT devices in wireless sensor networks. Journal of Ambient Intelligence and Humanized Computing, 2018, 9, 1223-1234.	3.3	12
198	Design and implementation of a cross-layer IoT protocol. Science of Computer Programming, 2018, 165, 24-37.	1.5	13
199	A Critical Analysis of Research Potential, Challenges, and Future Directives in Industrial Wireless Sensor Networks. IEEE Communications Surveys and Tutorials, 2018, 20, 39-95.	24.8	181
200	Performance analysis of Wireless Sensor Network MAC protocols using NS-2. , 2018, , .		0
201	A TDMA Energy Consumption Model for WSN Radio Selection in On-Board Aerospace Systems. , 2018, , .		1

#	ARTICLE	IF	CITATIONS
202	MCPS: A Multi-Channel Preamble Sampling MAC Protocol for Wireless Sensor Networks. , 2018, , .		2
203	Cluster Head Relocation Based on Selfish Herd Hypothesis for Prolonging the Life Span of Wireless Sensor Networks. Electronics (Switzerland), 2018, 7, 403.	1.8	3
204	A Comparison Analysis of Fault Detection Algorithms in Wireless Sensor Networks. , 2018, , .		7
205	A Survey on Medium Access Control (MAC) for Clustering Wireless Sensor Network. , 2018, , .		1
206	If you can't Beat Them, Augment Them: Improving Local WiFi with Only Above-Driver Changes. , 2018, , .		1
207	A Comprehensive Study of IoT and WSN MAC Protocols: Research Issues, Challenges and Opportunities. IEEE Access, 2018, 6, 76228-76262.	2.6	86
208	Whisper: Programmable and Flexible Control on Industrial IoT Networks. Sensors, 2018, 18, 4048.	2.1	17
209	A Smart Sensor Data Transmission Technique for Logistics and Intelligent Transportation Systems. Informatics, 2018, 5, 15.	2.4	5
210	TDMH-MAC: Real-Time and Multi-hop in the Same Wireless MAC. , 2018, , .		6
211	Dynamic Priority Based Reliable Real-Time Communications for Infrastructure-Less Networks. IEEE Access, 2018, 6, 67338-67359.	2.6	6
212	PulseHV: Opportunistic Data Transmissions over High Voltage Pulses for Smart Farming Applications. , 2018, , .		2
213	Penalty Shutdown Mitigation in Wireless Sensor Networks Powered by Ambient Energy. Lecture Notes in Computer Science, 2018, , 368-379.	1.0	1
214	Study on Wireless Sensor Networks â€œ A Comprehensive Approach. , 2018, , .		1
215	Impact of Packet Size in Adaptive Cognitive Radio Sensor Network. Wireless Communications and Mobile Computing, 2018, 2018, 1-9.	0.8	2
216	An Adaptive Beamforming Time with Round-Robin MAC Algorithm for Reducing Energy Consumption in MANET. Journal of Sensor and Actuator Networks, 2018, 7, 50.	2.3	5
217	WiseTOP. , 2018, , .		2
218	Optimal Routing for Time-Driven EH-WSN under Regular Energy Sources. Sensors, 2018, 18, 4072.	2.1	5
219	Clustered Heed Based Cross Layer Routing Scheme for Performance Enhancement of Cognitive Radio Sensor Networks. Communications in Computer and Information Science, 2018, , 569-583.	0.4	2

#	ARTICLE	IF	CITATIONS
220	A Delta-Diagram Based Synthesis for Cross Layer Optimization Modeling of IoT. Lecture Notes in Computer Science, 2018, , 1-24.	1.0	0
221	Impact of Buffer Management Solutions on MAC Layer Performance in Wireless Sensor Networks. IEICE Transactions on Communications, 2018, E101.B, 2058-2068.	0.4	2
222	Performance modeling and analysis of a UAV path planning and target detection in a UAV-based wireless sensor network. Computer Networks, 2018, 146, 217-231.	3.2	31
223	An Energy Efficient Cross-Layer Protocol for Wireless Sensor Networks. , 2018, , .		2
224	Analytical Model for the Duty Cycle in Solar-Based EH-WSN for Environmental Monitoring. Sensors, 2018, 18, 2499.	2.1	19
225	Demo: Taking Advantage of the Shock Hazard: How to Use an Electric Fence for Data Transfers. , 2018, , .		1
226	A Novel HEED Protocol for Wireless Sensor Networks. , 2018, , .		43
227	Accurate Energy Consumption Modeling of IEEE 802.15.4e TSCH Using Dual-Band OpenMote Hardware. Sensors, 2018, 18, 437.	2.1	19
228	Enhanced S-MAC Protocol for Early Reaction and Detection in Wireless Video Sensor Networks. , 2018, , .		1
229	Energy-efficient sink placement in wireless sensor networks. Computer Networks, 2018, 141, 166-178.	3.2	20
230	A Selective-Awakening MAC Protocol for Energy-Efficient Data Forwarding in Linear Sensor Networks. Wireless Communications and Mobile Computing, 2018, 2018, 1-18.	0.8	11
231	Secured Data Gathering Protocol for IoT Networks. Lecture Notes in Computer Science, 2018, , 129-143.	1.0	3
232	From outage probability to ALOHA MAC layer performance analysis in distributed WSNs. , 2018, , .		5
233	An Improved Niche Chaotic Genetic Algorithm for Low-Energy Clustering Problem in Large-Scale Wireless Sensor Networks. Journal of Sensors, 2018, 2018, 1-8.	0.6	1
234	Opportunistic Many-to-Many Multicasting in Duty-Cycled Wireless Sensor Networks. , 2018, , .		1
235	A QoS MAC protocol for prioritized data in energy harvesting wireless sensor networks. Computer Networks, 2018, 144, 141-153.	3.2	25
236	A Comparison Study on Dynamic Duty Cycle and Dynamic Channel Polling Approaches for Wireless Sensor Networks. , 2018, , .		2
237	Bio-inspired scheme for congestion control in wireless sensor networks. , 2018, , .		5

#	ARTICLE	IF	CITATIONS
238	Leveraging Energy Harvesting and Wake-Up Receivers for Long-Term Wireless Sensor Networks. Sensors, 2018, 18, 1578.	2.1	24
239	Performance Analysis of Opportunistic Distributed Scheduling In Multi-User Systems. IEEE Transactions on Communications, 2018, , 1-1.	4.9	7
240	Application Specific Sensor-Cloud: Architectural Model. Studies in Computational Intelligence, 2019, , 277-305.	0.7	5
241	Multiple Mobile Elements Based Energy Efficient Data Gathering Technique in Wireless Sensor Networks. Lecture Notes on Data Engineering and Communications Technologies, 2019, , 263-285.	0.5	7
242	Transmission Performance Analysis of TDMA Radio and MAC Communication of TDMA Protocol. Journal of Physics: Conference Series, 2019, 1167, 012015.	0.3	0
243	Sleep Time Adjustment through Performance Indicators of a Lithium-Ion Battery. , 2019, , .		2
245	Probe-Polling: A Polling Based MAC Protocol for Energy Harvesting Wireless Sensor Networks. Lecture Notes in Computer Science, 2019, , 525-536.	1.0	1
246	Energy-efficient wireless sensor network for nuclear radiation detection. Journal of Radiation Research and Applied Sciences, 2019, 12, 1-9.	0.7	10
247	RIVER-MAC: A Receiver-Initiated Asynchronously Duty-Cycled MAC Protocol for the Internet of Things. , 2019, , .		8
248	Neighbor Discovery Optimization for Big Data Analysis in Low-Power, Low-Cost Communication Networks. Symmetry, 2019, 11, 836.	1.1	1
249	Low Power WSN Protocol for Smart Green Homes. , 2019, , .		0
250	Implementation and Evaluation of ISDSR in Emulation Environments. , 2019, , .		1
251	Dynamic Duty-Cycle MAC Protocol for IoT Environments and Wireless Sensor Networks. Energies, 2019, 12, 4069.	1.6	14
252	In-network data storage protocols for wireless sensor networks: A state-of-the-art survey. International Journal of Distributed Sensor Networks, 2019, 15, 155014771983248.	1.3	6
253	Denial-of-Sleep Attacks against IoT Networks. , 2019, , .		11
254	UAV-Assisted RFET: A Novel Framework for Sustainable WSN. IEEE Transactions on Green Communications and Networking, 2019, 3, 1117-1131.	3.5	26
255	Energy-efficient on-demand indoor localization platform based on wireless sensor networks using low power wake up receiver. Ad Hoc Networks, 2019, 93, 101902.	3.4	23
256	Predicting Delay in IoT Using Deep Learning: A Multiparametric Approach. IEEE Access, 2019, 7, 62022-62031.	2.6	24

#	ARTICLE	IF	CITATIONS
257	Energy Efficiency Trade-Off Between Duty-Cycling and Wake-Up Radio Techniques in IoT Networks. Wireless Personal Communications, 2019, 107, 1951-1971.	1.8	56
258	Process Management in IoT Operating Systems: Cross-Influence between Processing and Communication Tasks in End-Devices. Sensors, 2019, 19, 805.	2.1	18
259	BLITZ. ACM Transactions on Sensor Networks, 2019, 15, 1-38.	2.3	9
260	Self-calibration methods for uncontrolled environments in sensor networks: A reference survey. Ad Hoc Networks, 2019, 88, 142-159.	3.4	62
261	Minimizing end-to-end delay in multi-hop wireless networks with optimized transmission scheduling. Ad Hoc Networks, 2019, 89, 236-248.	3.4	14
262	State-of-charge estimation to improve decision making by MAC protocols used in WSNs. Electronics Letters, 2019, 55, 161-163.	0.5	3
263	Power Optimization in MAC Protocols for WSN. , 2019, , .		2
264	Role Based Medium Access Control in Wireless Sensor Networks. , 2019, , .		1
265	A Case Study of WSN MAC Protocols to Achieve Lifetime Maximization. , 2019, , .		3
266	A State Space Reduction Method for Model Checking of Wireless Multi-Hop Network Routing Protocols Focusing on Topologies. , 2019, , .		1
267	Resource allocation in heterogeneous cognitive radio sensor networks. International Journal of Distributed Sensor Networks, 2019, 15, 155014771985194.	1.3	6
268	OGMAD: Optimal GTS-Allocation Mechanism for Adaptive Data Requirements in IEEE 802.15.4 Based Internet of Things. IEEE Access, 2019, 7, 170629-170639.	2.6	23
269	Energy Management in Wireless Sensor Networks: A State of Art. Lecture Notes on Data Engineering and Communications Technologies, 2019, , 492-499.	0.5	1
270	A Survey on the Programmability of Wireless MAC Protocols. IEEE Communications Surveys and Tutorials, 2019, 21, 1064-1092.	24.8	6
271	Denial-of-sleep defenses for IEEE 802.15.4 coordinated sampled listening (CSL). Computer Networks, 2019, 148, 60-71.	3.2	9
272	A Channel Borrowing Approach for Cluster-based Hierarchical Wireless Sensor Networks. Mobile Networks and Applications, 2019, 24, 1306-1316.	2.2	7
273	Improvements of Energy-Efficient Techniques in WSNs: A MAC-Protocol Approach. IEEE Communications Surveys and Tutorials, 2019, 21, 1188-1208.	24.8	39
274	A Taxonomy for MAC Protocols in Wireless Sensor Networks Based on Traffic Prioritization. Wireless Personal Communications, 2019, 104, 1493-1522.	1.8	2

#	ARTICLE	IF	CITATIONS
275	An analysis of energy efficiency in Wireless Sensor Networks (WSNs) applied in smart agriculture. Computers and Electronics in Agriculture, 2019, 156, 500-507.	3.7	64
276	Portability, compatibility and reuse of MAC protocols across different IoT radio platforms. Ad Hoc Networks, 2019, 86, 144-153.	3.4	6
277	A Wake-Up Radio-Based MAC Protocol for Autonomous Wireless Sensor Networks. IEEE/ACM Transactions on Networking, 2019, 27, 56-70.	2.6	32
278	Adaptive Medium Access Control for Distributed Processing in Wireless Sensor Networks. IEEE Transactions on Signal and Information Processing Over Networks, 2019, 5, 113-126.	1.6	2
279	Data Driven Cyber-Physical System for Landslide Detection. Mobile Networks and Applications, 2019, 24, 991-1002.	2.2	44
280	Survey and taxonomy of MAC, routing and cross layer protocols using wake-up radio. Journal of Network and Computer Applications, 2020, 149, 102465.	5.8	27
281	On the practical implementation of propagation delay and clock skew compensated high-precision time synchronization schemes with resource-constrained sensor nodes in multi-hop wireless sensor networks. Computer Networks, 2020, 166, 106959.	3.2	20
282	An Energy-efficient Distributed TDMA Scheduling Algorithm for ZigBee-like Cluster-tree WSNs. ACM Transactions on Sensor Networks, 2020, 16, 1-41.	2.3	7
284	Energy efficient broadcast protocols for asynchronous duty-cycled wireless sensor networks. Wireless Networks, 2020, 26, 1373-1388.	2.0	0
285	Sustainability Analysis of a Leakage-Monitoring Technique for Water Pipeline Networks. Journal of Pipeline Systems Engineering and Practice, 2020, 11, .	0.9	27
286	LocSpeck: A Collaborative and Distributed Positioning System for Asymmetric Nodes Based on UWB Ad-Hoc Network and Wi-Fi Fingerprinting. Sensors, 2020, 20, 78.	2.1	19
287	A Model Checking Method for Secure Routing Protocols by SPIN with State Space Reduction. , 2020, , .		3
288	A novel multi-objective optimizer framework for TDMA-based medium access control in IoT. CSI Transactions on ICT, 2020, 8, 319-330.	0.7	4
289	Hierarchical MAC protocol with adaptive duty-cycle adjustment algorithm for wireless sensor network. International Journal of Operational Research, 2020, 37, 579.	0.1	0
290	Comparison of self-organized tree hierarchy MAC protocol and PP-MAC for energy consideration in wireless sensor networks. Materials Today: Proceedings, 2020, 33, 4756-4763.	0.9	1
291	E-DSR: energy-efficient routing for sensors with diverse sensing rates. International Journal of Ad Hoc and Ubiquitous Computing, 2020, 34, 233.	0.3	1
292	Low-Power and Low-Delay WLAN Using Wake-Up Receivers. IEEE Transactions on Mobile Computing, 2022, 21, 1739-1750.	3.9	4
293	A Survey on the Evolution of Opportunistic Routing with Asynchronous Duty-Cycled MAC in Wireless Sensor Networks. Sensors, 2020, 20, 4112.	2.1	4

#	ARTICLE	IF	CITATIONS
294	Accurate Graph Filtering in Wireless Sensor Networks. IEEE Internet of Things Journal, 2020, 7, 11431-11445.	5.5	6
295	CL-TPC: a Cross Layer Transmission Power Control protocol for Routing in WSN. , 2020, , .		3
296	Survey on fault tolerance-based clustering evolution in WSN. IET Networks, 2020, 9, 145-155.	1.1	20
297	MAC Protocol for Underwater Sensor Networks Using EM Wave With TDMA Based Control Channel. IEEE Access, 2020, 8, 168439-168455.	2.6	5
298	RPCP-MAC: Receiver preambuling with channel polling MAC protocol for underwater wireless sensor networks. International Journal of Communication Systems, 2020, 33, e4383.	1.6	4
299	Design of Routing Protocol for Opportunistic Network Based on Adaptive Motion. IEEE Access, 2020, 8, 18228-18239.	2.6	8
300	Long-Term Monitoring of the Sierra Nevada Snowpack Using Wireless Sensor Networks. IEEE Internet of Things Journal, 2022, 9, 17185-17193.	5.5	15
301	Multisensor Data Fusion Calibration in IoT Air Pollution Platforms. IEEE Internet of Things Journal, 2020, 7, 3124-3132.	5.5	62
302	Efficient Data Collection Over Multiple Access Wireless Sensors Network. IEEE/ACM Transactions on Networking, 2020, 28, 491-504.	2.6	21
303	A New Intra-Cluster Scheduling Scheme for Real-Time Flows in Wireless Sensor Networks. Electronics (Switzerland), 2020, 9, 683.	1.8	0
304	Evaluation of CSL-based Low Power MAC Protocol for Wireless Smart Metering Networks. , 2020, , .		3
305	Deployment of Drone-Based Small Cells for Public Safety Communication System. IEEE Systems Journal, 2020, 14, 2882-2891.	2.9	19
306	Load-balanced and energy-aware opportunistic routing with adaptive duty cycling for multi-channel WSNs. Journal of Supercomputing, 2021, 77, 1038-1058.	2.4	6
307	Intra- and inter-cluster link scheduling in CUPS-based ad hoc networks. Computer Networks, 2021, 185, 107659.	3.2	5
308	Energy optimized micro genetic algorithm based LEACH protocol for WSN. Wireless Networks, 2021, 27, 27-40.	2.0	54
309	Energy and bandwidth-efficient channel access for local area machine-to-machine communication. Wireless Networks, 2021, 27, 401-421.	2.0	1
310	A synchronous duty-cycled reservation based MAC protocol for underwater wireless sensor networks. Digital Communications and Networks, 2021, 7, 385-398.	2.7	19
312	A Probabilistic Preamble Sampling Anycast Protocol for Low-Power IoT. Lecture Notes in Networks and Systems, 2021, , 15-27.	0.5	1

#	ARTICLE	IF	CITATIONS
313	Entanglement-Based Competition Resolution in Distributed Systems. IEEE Access, 2021, 9, 10253-10262.	2.6	0
314	A Survey on Energy-Efficient MAC Protocols for Wireless Sensor Networks. Lecture Notes in Electrical Engineering, 2021, , 177-188.	0.3	2
315	A dynamic channel allocation protocol for medical environment. Annales Des Telecommunications/Annals of Telecommunications, 2021, 76, 483-497.	1.6	1
316	A double-layer isolation mechanism for malicious nodes in wireless sensor networks. Wireless Networks, 2021, 27, 2391-2407.	2.0	1
318	HAS-MAC: A Hybrid Asynchronous and Synchronous Communication System for Energy-Harvesting Wireless Sensor Networks. Wireless Personal Communications, 2021, 119, 1743-1761.	1.8	5
319	Efficient Polling Communications for Multi-Hop Networks Based on Receiver-Initiated MAC Protocol. IEICE Transactions on Communications, 2021, E104.B, 550-562.	0.4	2
320	Role of Clustering, Routing Protocols, MAC protocols and Load Balancing in Wireless Sensor Networks: An Energy-Efficiency Perspective. Cybernetics and Information Technologies, 2021, 21, 136-165.	0.4	6
321	Load-balance scheduling for intelligent sensors deployment in industrial internet of things. Cluster Computing, 2022, 25, 1715-1727.	3.5	21
322	Energy Efficient Cross Layer MAC Protocol for Wireless Sensor Networks in Remote Area Monitoring Applications. Journal of Information Systems and Telecommunication, 2021, 9, 207-217.	0.2	2
323	A Comprehensive Survey of Medium Access Control Protocols for Wireless Body Area Networks. Wireless Communications and Mobile Computing, 2021, 2021, 1-16.	0.8	8
324	QX-MAC: Improving QoS and Energy Performance of IoT-based WSNs using Q-Learning. , 2021, , .		2
325	A Survey on Energy-Efficient Strategies in Static Wireless Sensor Networks. ACM Transactions on Sensor Networks, 2021, 17, 1-48.	2.3	33
326	Performance enhancement of IEEE 802.15.4 by employing RTS/CTS and frame concatenation. IET Wireless Sensor Systems, 2020, 10, 308-319.	1.3	2
327	pQueue-MAC: An Energy Efficient Hybrid MAC Protocol for Event-Driven Sensor Networks. International Journal of Distributed Sensor Networks, 2015, 11, 160167.	1.3	9
328	The Study on Media Access Control Protocol for Wireless Network in Library. International Journal of Distributed Sensor Networks, 2015, 11, 792542.	1.3	3
329	A Study on Channel Polling Mechanisms for the MAC Protocols in Wireless Sensor Networks. International Journal of Distributed Sensor Networks, 2015, 11, 965475.	1.3	6
330	Pliable Cognitive MAC for Heterogeneous Adaptive Cognitive Radio Sensor Networks. PLoS ONE, 2016, 11, e0156880.	1.1	4
331	Setting strategy of delay-optimization-oriented SMAC contention window size. PLoS ONE, 2017, 12, e0181506.	1.1	1

#	ARTICLE	IF	CITATIONS
332	A Simulation Model for Industrial Multi-Channel Wireless Sensor Networks. Journal of Communication and Information Systems, 2017, 32, 29-40.	0.2	4
333	Energy based Efficiency Evaluation of Cluster-Based Routing Protocols for Wireless Sensor Networks (WSNs). International Journal of Software Engineering and Its Applications, 2013, 7, 249-264.	0.2	6
334	A Survey of Energy Conservation Mechanisms for Dynamic Cluster Based Wireless Sensor Networks. Mehran University Research Journal of Engineering and Technology, 2018, 37, 279-296.	0.3	3
335	HG-MAC: A Energy-Efficient Protocol for M2M Network. , 2015, , .		2
336	Collision Prevention for Duty-Cycle Receiver-Initiation MAC Protocol via Multiple Access Reservation (MAR-RiMAC). Sensors, 2021, 21, 127.	2.1	3
337	Multi-Constrained QoS Opportunistic Routing by Optimal Power Tuning in Low Duty-Cycle WSNs. Circuits and Systems, 2016, 07, 2928-2939.	0.1	2
338	Hybrid TDMA/CDMA MAC Protocol for Wireless Sensor Networks. Journal of Networks, 2014, 9, .	0.4	5
339	A Survey on Asynchronous MAC protocols in Wireless Sensor Networks. International Journal of Computer Applications, 2014, 108, 19-22.	0.2	3
340	Wireless Sensor Network- Challenges and Possibilities. International Journal of Computer Applications, 2016, 140, 1-15.	0.2	6
341	Energy Efficient MAC Protocols for Wireless Sensor Network: A Survey. International Journal of Wireless and Mobile Networks, 2013, 5, 75-89.	0.1	10
344	An Improved Depth-Based TDMA Scheduling Algorithm for Industrial WSNs to Reduce End-to-end Delay. Journal of KIISE, 2015, 42, 530-540.	0.0	1
345	Soldier Safety using GPS and GSM Modem. , 2021, , .		2
346	MULTI-CHANNEL MAC PROTOCOL FOR ENERGY SAVING IN WIRELESS SENSOR NETWORKS. International Journal of Smart Sensors and Ad Hoc Networks, 2013, , 26-30.	0.8	0
347	New MAC Protocol for Fast Data Collection in Wireless Sensor Networks. IOSR Journal of Engineering, 2013, 03, 01-05.	0.1	0
348	Energy Efficient IR-UWB WBAN using a Generic Wake-up Radio based MAC Protocol. , 2014, , .		7
349	Data fusaggregation algorithm based on dynamic minimal spanning tree routing protocol. Wuli Xuebao/Acta Physica Sinica, 2014, 63, 090206.	0.2	2
350	Locally Synchronized MAC Protocols in Wireless Sensor Networks: A Survey. International Journal of Computer Applications, 2014, 91, 37-41.	0.2	0
351	A Review on Mobility and Mobility Aware MAC Protocols in Wireless Sensor Network. International Journal of Computer Applications, 2014, 91, 46-56.	0.2	3

#	ARTICLE	IF	CITATIONS
352	Comparative Study of MAC Layer Protocols in Wireless Sensor Networks: A Survey. SSRG International Journal of Engineering Trends and Technology, 2014, 12, 13-19.	0.3	5
353	Energy-Efficient Sensor Device Personalization Scheme for the Internet of Things and Wireless Sensor Networks. IEICE Transactions on Communications, 2015, E98.B, 231-241.	0.4	2
354	Implementation of Tree-Based Data Collection Scheme for Arduino-Compatible Board. Smart Innovation, Systems and Technologies, 2015, , 335-345.	0.5	0
356	FMAC: Fair Mac Protocol for Achieving Proportional Fairness in Multi-Rate WSNs. Communications and Network, 2015, 07, 89-105.	0.6	0
357	An Energy and Delay Efficient Hybrid MAC Protocol for Multi-Hop Wireless Sensor Networks. The Journal of the Korean Institute of Information and Communication Engineering, 2015, 19, 471-476.	0.1	0
358	Efficient Packet Transmission Mechanism for Multi-hop Wireless Sensor Networks. Journal of Korea Multimedia Society, 2015, 18, 492-498.	0.1	0
359	Data Fusion in Wireless Sensor Networks using Fuzzy Systems. International Journal of Computer Applications, 2015, 125, 31-36.	0.2	5
360	Ultralow Power Energy Harvesting Body Area Network Design: A Case Study. International Journal of Distributed Sensor Networks, 2015, 11, 824705.	1.3	2
361	A New MAC Protocol PB-TDMA for WSNs Based on Event-driven. International Journal of Security and Its Applications, 2015, 9, 55-62.	0.5	1
362	Performance Evaluation of the VB-TDMA Protocol for Long-term Tracking and Monitoring of Mobile Entities in the Outdoors. , 2015, , .		2
364	Top-Down TDMA Scheduling Algorithm in Wireless Sensor Networks. Journal of Advances in Computer Networks, 2016, 4, 41-45.	0.2	0
365	Location-based Clustering for Skewed-topology Wireless Sensor Networks. Journal of Digital Convergence, 2016, 14, 171-179.	0.1	0
366	Mobile Wireless Sensor Networks. Advances in Wireless Technologies and Telecommunication Book Series, 2016, , 256-292.	0.3	2
367	A Dynamic Duty Cycle Adjustment Mechanism for Reduced Latency in Industrial Plants. The Journal of the Institute of Internet Broadcasting and Communication, 2016, 16, 193-198.	0.0	0
368	IRI-MAC: An Improved Receiver Initiated MAC Protocol for Wireless Sensor Network. International Journal of Computer Applications, 2016, 143, 19-23.	0.2	1
370	Performance Evaluation of Wireless Sensor Networks Based on Entropy Weight and AHP. , 2017, , .		1
372	WSN Architecture Design Based on Software Defined Networks. , 2017, , .		0
373	An Improved Distributed Fault Diagnosis Algorithm in Wireless Sensor Networks. , 2017, , .		0

#	ARTICLE	IF	CITATIONS
374	A testbed evaluation of MAC layer protocols for smart home remote monitoring of the elderly mobility pattern. IFMBE Proceedings, 2017, , 568-575.	0.2	3
377	A Study on Low Power using Improved MAC Protocol based on WSN. , 2017, , .		0
378	Designing an asynchronous multi-channel media access control protocol based on service quality for wireless sensor networks. International Journal of Advanced Computer Research, 2017, 7, 190-199.	1.2	3
379	QoS-Aware MAC. , 2018, , 1-4.		0
380	More Lightweight, yet Stronger 802.15.4 Security Through an Intra-layer Optimization. Lecture Notes in Computer Science, 2018, , 173-188.	1.0	1
381	Sleeping scheme based on grey forecast and time division for heterogeneous WSNs. International Journal of Autonomous and Adaptive Communications Systems, 2018, 11, 113.	0.2	0
382	Distributed Algorithms for Maximizing Lifetime in Clustered Wireless Sensor Networks Using Energy-Harvesting Relay Node. Journal of Electronic Research and Application, 2018, 2, .	0.1	0
383	DCDS-MAC: A Dual-Channel Dual-Slot MAC Protocol for Delay Sensitive Wireless Sensor Network Applications. Journal of Communications, 2019, , 1049-1058.	1.3	1
384	An Addressing Scheme for Massive Sensor Networks. Lecture Notes in Computer Science, 2019, , 481-492.	1.0	3
385	Dependable Wireless Communication and Localization in the Internet of Things. Studies in Systems, Decision and Control, 2019, , 209-256.	0.8	1
386	Cyber-physical Autonomous Vehicular System (CAVS): A MAC Layer Perspective. , 2020, , 129-152.		2
387	A survey on recent contention-free MAC protocols for static and mobile wireless decentralized networks in IoT. Computer Networks, 2021, 201, 108583.	3.2	6
389	Investigating Intrusion Detection Security Techniques in Cloud-Based Networks. International Journal of Cyber-Security and Digital Forensics, 2020, 9, 71-88.	0.4	0
390	Comparison Analysis of MAC Protocols for Wireless Sensor Networks. Advances in Information Security, Privacy, and Ethics Book Series, 2020, , 200-218.	0.4	0
391	QoS-Aware MAC. , 2020, , 1139-1142.		0
392	WiChronos. , 2020, , .		3
393	Distributed Adaptive Parametric Power Spectral Estimation Using Wireless Sensor Networks. Advances in Wireless Technologies and Telecommunication Book Series, 0, , 321-351.	0.3	0
394	Event-aware Hierarchical Routing with Differential Compression to Extend WSN Lifetime. , 2020, , .		1

#	ARTICLE	IF	CITATIONS
395	Analysis and simulation of a hybrid visible-light/infrared optical wireless network for IoT applications. <i>Journal of Optical Communications and Networking</i> , 2022, 14, 69.	3.3	10
396	Communication-Aware Consensus-Based Decentralized Task Allocation in Communication Constrained Environments. <i>IEEE Access</i> , 2022, 10, 19753-19767.	2.6	7
397	Lifetime optimization of dense wireless sensor networks using continuous ring-sector model. <i>Future Generation Computer Systems</i> , 2022, 129, 212-224.	4.9	9
398	Design of a DuC-based MAC Protocol Considering Information Associated to the Battery. , 2020, , .		0
399	Dynamic TDMA for Wireless Sensor Networks. , 2021, , .		4
400	Challenges, Applications, and Future of Wireless Sensors in Internet of Things: A Review. <i>IEEE Sensors Journal</i> , 2022, 22, 5482-5494.	2.4	105
402	Machine Learning-Based Communication Collision Prediction and Avoidance for Mobile Networks. <i>Lecture Notes in Networks and Systems</i> , 2022, , 194-204.	0.5	1
403	Conceptual Framework for Future WSN-MAC Protocol to Achieve Energy Consumption Enhancement. <i>Sensors</i> , 2022, 22, 2129.	2.1	15
404	Study on network dormancy mechanism based on low duty cycle. , 2022, , .		0
406	Recent trends in clustering algorithms for wireless sensor networks: A comprehensive review. <i>Computer Communications</i> , 2022, 191, 395-424.	3.1	13
407	Priority and Traffic-Aware Contention-Based Medium Access Control Scheme for Multievent Wireless Sensor Networks. <i>IEEE Access</i> , 2022, 10, 87361-87373.	2.6	3
408	A novel time-interval based modulation for large-scale, low-power, wide-area-networks. <i>ACM Transactions on Sensor Networks</i> , 0, , .	2.3	0
409	TDMA policy to optimize resource utilization in Wireless Sensor Networks using reinforcement learning for ambient environment. <i>Computer Communications</i> , 2022, 195, 162-172.	3.1	1
410	Energy efficient medium access control protocol for data collection in wireless sensor network: A Q-learning approach. <i>Sustainable Energy Technologies and Assessments</i> , 2022, 53, 102530.	1.7	4
411	Load-Aware Distributed Resource Allocation for MF-TDMA Ad Hoc Networks: A Multi-Agent DRL Approach. <i>IEEE Transactions on Network Science and Engineering</i> , 2022, 9, 4426-4443.	4.1	2
412	A Comprehensive Analysis of Application-Based MAC Protocol for Wireless Sensor Network. <i>Lecture Notes in Electrical Engineering</i> , 2022, , 183-198.	0.3	2
413	SMAC-Based WSN Protocol-Current State of the Art, Challenges, and Future Directions. <i>Journal of Computer Networks and Communications</i> , 2022, 2022, 1-29.	1.2	3
414	CAPL: Criticality-Aware Adaptive Path Learning for Industrial Wireless Sensor-Actuator Networks. <i>IEEE Transactions on Industrial Informatics</i> , 2023, 19, 9123-9133.	7.2	1

#	ARTICLE	IF	CITATIONS
415	Design criteria for enhanced energy constraint MAC protocol for WSN. Measurement: Sensors, 2023, 25, 100642.	1.3	2
416	On the Medium Access Control Protocols Suitable for Wireless Sensor Networks â€“ A Survey. , 2014, 6, .		3
417	A Dynamic Opportunistic Routing Protocol for Asynchronous Duty-Cycled WSNs. IEEE Transactions on Sustainable Computing, 2023, 8, 314-327.	2.2	2
418	A Survey on Evolved LoRa-Based Communication Technologies for Emerging Internet of Things Applications. , 0, , 4-19.		34
419	An Effective Hybrid Mobility Aware Energy Efficient Low Latency Protocol (HMEI-MAC) for Wireless Sensor Network. Cybernetics and Systems, 0, , 1-16.	1.6	0
420	Network life time augmentation of WSN through efficient energy using GAN algorithm. Journal of Intelligent and Fuzzy Systems, 2023, , 1-10.	0.8	0
421	Performance Evaluation of an Asynchronous MAC Protocol in Wireless Sensor Network. , 2022, , .		1
425	Designing of Fault-Tolerant Models for Wireless Sensor Network-Assisted Smart City Applications. Studies in Computational Intelligence, 2023, , 25-43.	0.7	2