

# A Survey on Wireless Body Area Networks: Technologies

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Citation Report

#	ARTICLE	IF	CITATIONS
1	A Survey on Energy Efficient Wireless Sensor Networks for Bicycle Performance Monitoring Application. Journal of Sensors, 2014, 2014, 1-16.	0.6	14
2	An energy-efficient leader election mechanism for wireless body area networks. , 2014, , .		3
3	A Survey on M2M Systems for mHealth: A Wireless Communications Perspective. Sensors, 2014, 14, 18009-18052.	2.1	98
4	Track K. Biomedizinische Technik, 2014, 59, s700-57.	0.9	1
5	End-to-end communication challenges in M2M systems for mHealth applications. , 2014, , .		1
6	Flexible microstrip patch antenna using rubber substrate for WBAN applications. , 2014, , .		17
7	A novel, low-profile, directional UWB antenna for WBAN. , 2014, , .		2
8	Energy-efficient two-hop transmission prioritization scheme for wireless body area networks. , 2014, , .		4
9	On the performance of IEEE 802.15.6 CSMA/CA with priority for query-based traffic. , 2014, , .		5
10	Delay Analysis of IEEE 802.15.6 CSMA/CA Mechanism in Duty-Cycling WBANs. , 2014, , .		2
11	QoS-Driven Power Control for Inter-WBAN Interference Mitigation. , 2014, , .		0
12	QoS-Driven Power Control for Inter-WBAN Interference Mitigation. , 2015, , .		13
13	Study of a complementary antenna for wearable applications. , 2015, , .		2
14	Delay Analysis of IEEE 802.15.6 CSMA/CA Mechanism in Duty-Cycling WBANs. , 2015, , .		3
15	Modeling the impact of node speed on the ranging estimation with UWB body area networks. , 2015, , .		1
16	Performance evaluation of IEEE 802.15.6 CSMA/CA-based CANet WBAN. , 2015, , .		8
17	A study of mobility support in wearable health monitoring systems: Design framework. , 2015, , .		6
18	A Hybrid Lifetime Extended Directional Approach for WBANs. Sensors, 2015, 15, 28005-28030.	2.1	17

#	ARTICLE	IF	CITATIONS
19	Interference Mitigation Schemes for Wireless Body Area Sensor Networks: A Comparative Survey. Sensors, 2015, 15, 13805-13838.	2.1	39
20	Performance Evaluation of Wearable Sensor Systems: A Case Study in Moderate-Scale Deployment in Hospital Environment. Sensors, 2015, 15, 24977-24995.	2.1	3
21	An On-Demand Emergency Packet Transmission Scheme for Wireless Body Area Networks. Sensors, 2015, 15, 30584-30616.	2.1	13
22	Patient Data Prioritization in the Cross-Layer Designs of Wireless Body Area Network. Journal of Computer Networks and Communications, 2015, 2015, 1-21.	1.2	11
23	An ID/Locator Separation Based Group Mobility Management in Wireless Body Area Network. Journal of Sensors, 2015, 2015, 1-12.	0.6	3
24	On IEEE 802.15.6 IR-UWB ED receiver performance in the presence of multiuser interference. , 2015, , .		3
25	Centralized Inter-Network Resource Allocation Scheme in Wireless Body Area Network. Applied Mechanics and Materials, 0, 734, 95-98.	0.2	0
26	Zone-based fuzzy routing for WBANs. , 2015, , .		3
27	Statistical Challenges for Quality Assessment of Smart Medical Devices. , 2015, , .		2
28	On constructing interference free schedule for coexisting wireless body area networks using distributed coloring algorithm. , 2015, , .		2
29	A comparative analysis of microstrip patch antenna for MICS and ISM frequency antennas applied to WBAN. , 2015, , .		1
30	A holistic simulation model for remote patient monitoring systems using Wireless Body Area Sensor Networks (WBASNs). , 2015, , .		3
31	An effect of delay reduced MAC protocol for WBAN based medical signal monitoring. , 2015, , .		3
32	Motion aware transmission power control scheme in wireless body area network. , 2015, , .		6
33	Experimental characterisation of energy consumption in Body Area Networks. , 2015, , .		2
35	Code Index Modulation: A High Data Rate and Energy Efficient Communication System. IEEE Communications Letters, 2015, 19, 175-178.	2.5	88
36	A Lightweight Key Freshness Scheme for Wireless Sensor Networks. , 2015, , .		16
37	A Survey of MAC Protocols for Cognitive Radio Body Area Networks. Sensors, 2015, 15, 9189-9209.	2.1	24

#	ARTICLE	IF	CITATIONS
38	An efficient cross-layer reliable retransmission scheme for the human body shadowing in IEEE 802.15.6-based wireless body sensor networks. , 2015, , .		6
39	I-WBAN: Enabling Information-centric data retrieval in heterogeneous WBAN. , 2015, , .		3
40	Bluetooth Low Energy for data streaming: Application-level analysis and recommendation. , 2015, , .		21
41	Adaptive CSMA/CA MAC protocol to reduce inter-WBAN interference for wireless body area networks. , 2015, , .		21
42	THE ROLE OF CROSS-LAYERED DESIGNS IN WIRELESS BODY AREA NETWORK. Jurnal Teknologi (Sciences) Tj ETQq0,0,0 rgBT /Overlock 1	0.3	1
43	Privacy-Enhanced and Multifunctional Health Data Aggregation under Differential Privacy Guarantees. Sensors, 2016, 16, 1463.	2.1	21
44	HILBERT CURVE FRACTAL ANTENNA FOR DUAL ON- AND OFF-BODY COMMUNICATION. Progress in Electromagnetics Research Letters, 2016, 58, 81-88.	0.4	12
45	Delay, Reliability, and Throughput Based QoS Profile: A MAC Layer Performance Optimization Mechanism for Biomedical Applications in Wireless Body Area Sensor Networks. Journal of Sensors, 2016, 2016, 1-17.	0.6	36
46	Towards Reliable and Energy-Efficient Incremental Cooperative Communication for Wireless Body Area Networks. Sensors, 2016, 16, 284.	2.1	33
47	An Energy-Efficient MAC Protocol for Medical Emergency Monitoring Body Sensor Networks. Sensors, 2016, 16, 385.	2.1	13
48	A Priority-Based Adaptive MAC Protocol for Wireless Body Area Networks. Sensors, 2016, 16, 401.	2.1	80
49	Realistic Simulation for Body Area and Body-To-Body Networks. Sensors, 2016, 16, 561.	2.1	19
50	Analysis of Aggregation Delay for Multisource Sensor Data with On-Off Traffic Pattern in Wireless Body Area Networks. Sensors, 2016, 16, 1622.	2.1	17
51	A Spatially Aware Channel Model for Body-to-Body Communications. IEEE Transactions on Antennas and Propagation, 2016, 64, 3611-3618.	3.1	25
52	End-to-end power optimization in non-homogenous relay environment for wireless body area networks (WBANs). , 2016, , .		1
53	Fading modelling in dynamic off-body channels. , 2016, , .		5
54	An Off-Body Channel Model for Body Area Networks in Indoor Environments. IEEE Transactions on Antennas and Propagation, 2016, 64, 4022-4035.	3.1	60
55	A self-adaptive Power control algorithm based on game theory for inter-WBAN interference mitigation. , 2016, , .		3

#	ARTICLE	IF	CITATIONS
56	Flexible novel trident shaped microstrip patch antennas design employing Teflon substrate. , 2016, , .		1
57	CLOEE - Cross-Layer Optimization for Energy Efficiency of IEEE 802.15.6 IR-UWB WBANs. , 2016, , .		4
58	Optimum placement of gateway node on human body for real-time healthcare monitoring using WBAN. , 2016, , .		6
59	Resistive termination low noise amplifier for bio-sensor applications. , 2016, , .		5
60	A dynamic pilot interval adjustment scheme for HBC channel estimation. , 2016, , .		2
61	A Cooperative Transmission Strategy for Body-Area Networks in Healthcare Systems. IEEE Access, 2016, 4, 9155-9162.	2.6	22
62	Revisiting Routing in Wireless Body Area Networks. , 2016, , 116-143.		1
63	Error control strategy in ultrasonic Body Area Networks. China Communications, 2016, 13, 244-259.	2.0	1
64	Measurement and characterization on a human body communication channel. , 2016, , .		4
65	A Virtual Local-hub Solution with Function Module Sharing for Wearable Devices. , 2016, , .		7
66	Optimal beamforming-based power control in wireless body area networks. , 2016, , .		2
67	Evolutionary design of fuzzy logic controllers for medium access control in WBAN. , 2016, , .		2
68	Medical Body Area Networks: Mobility and channel modeling. , 2016, , .		9
69	Performance of the routing protocols AODV, DSDV and OLSR in health monitoring using NS3. , 2016, , .		11
70	Design and implementation of a body coupled communication system for streaming music. , 2016, , .		1
71	Performance of IR-UWB cross-layer ranging protocols under on-body channel models with body area networks. Annales Des Telecommunications/Annals of Telecommunications, 2016, 71, 453-463.	1.6	0
72	A residential maintenance-free long-term activity monitoring system for healthcare applications. Eurasip Journal on Wireless Communications and Networking, 2016, 2016, .	1.5	27
73	Capacity of Broadband Body-to-Body Channels Between Firefighters Wearing Textile SIW Antennas. IEEE Transactions on Antennas and Propagation, 2016, 64, 1918-1931.	3.1	17

#	ARTICLE	IF	CITATIONS
74	Game theoretic framework for studying WBAN coexistence: 2-Player game analysis and n-player game estimation. , 2016, , .		11
75	Optimal Relay Selection and Power Control With Quality-of-Service Provisioning in Wireless Body Area Networks. IEEE Transactions on Wireless Communications, 2016, 15, 5497-5510.	6.1	45
76	A token-based dynamic scheduled MAC protocol for health monitoring. Eurasip Journal on Wireless Communications and Networking, 2016, 2016, .	1.5	21
77	Posture detection using WBAN and its application in remote healthcare monitoring. , 2016, , .		2
78	Improved scheduling for MAC protocol in WBAN based monitoring environment. , 2016, , .		2
79	Efficient high-rate key management technique for wireless body area networks. , 2016, , .		9
80	Biometric Behavior Authentication Exploiting Propagation Characteristics of Wireless Channel. IEEE Access, 2016, 4, 4789-4796.	2.6	16
81	IEEE Access Special Section Editorial: Body Area Networks For Interdisciplinary Research. IEEE Access, 2016, 4, 2989-2992.	2.6	64
82	Optical Wireless Body Area Networks for Healthcare Applications. Signals and Communication Technology, 2016, , 569-587.	0.4	15
83	Patient Data Dissemination in Wireless Body Area Network. , 2016, , .		1
84	An Accelerometer-Assisted Transmission Power Control Solution for Energy-Efficient Communications in WBAN. IEEE Journal on Selected Areas in Communications, 2016, 34, 3427-3437.	9.7	30
85	An adaptive error control scheme considering various channel conditions and QoS in medical and non-medical data for WBAN. , 2016, , .		2
86	Medium Access Control Protocols for Wireless Body Area Networks: A Survey. Procedia Technology, 2016, 25, 621-628.	1.1	21
87	Energy efficiency and area spectral efficiency tradeoff for coexisting wireless body sensor networks. Science China Information Sciences, 2016, 59, 1.	2.7	2
89	Novel UWB slotted I-shaped flexible microstrip patch antenna design for satellite reconnaissance, amateur radio, future soil moisture and sea surface salinity missions. , 2016, , .		1
90	Real-time Medical Emergency Response System: Exploiting IoT and Big Data for Public Health. Journal of Medical Systems, 2016, 40, 283.	2.2	105
91	Analysis of on-body communication channels with consideration of wave absorbers emulating free space. , 2016, , .		1
92	Wireless body area network security issues " Survey. , 2016, , .		13

#	ARTICLE	IF	CITATIONS
93	Flexible FR-4 based novel ultra-wide band microstrip patch antenna for buried landmine detection applications. , 2016, , .		0
94	Radio channel measurements in body-to-body communications in different scenarios. , 2016, , .		12
95	A novel IEEE 802.15.6 CSMA/CA service differentiation. , 2016, , .		0
96	A Heuristic Self-Adaptive Medium Access Control for Resource-Constrained WBAN Systems. IEEE Access, 2016, 4, 1287-1300.	2.6	22
97	A survey of IEEE 802.15.4 effective system parameters for wireless body sensor networks. International Journal of Communication Systems, 2016, 29, 1269-1292.	1.6	18
98	Data stream visualization framework for smart cities. Soft Computing, 2016, 20, 1671-1681.	2.1	7
99	Use of wireless system in healthcare for developing countries. Digital Communications and Networks, 2016, 2, 35-46.	2.7	13
100	An Implementation of Wireless Body Area Networks for Improving Priority Data Transmission Delay. Journal of Medical Systems, 2016, 40, 75.	2.2	17
101	An Efficient Cross-Layer Reliable Retransmission Scheme for the Human Body Shadowing in IEEE 802.15.6-Based Wireless Body Area Networks. IEEE Sensors Journal, 2016, 16, 3282-3292.	2.4	22
102	A novel IPv6 address configuration for a 6LoWPAN-based WBAN. Journal of Network and Computer Applications, 2016, 61, 33-45.	5.8	5
103	Generalized Code Index Modulation Technique for High-Data-Rate Communication Systems. IEEE Transactions on Vehicular Technology, 2016, 65, 7000-7009.	3.9	109
104	An Incentive-Compatible Mechanism for Transmission Scheduling of Delay-Sensitive Medical Packets in E-Health Networks. IEEE Transactions on Mobile Computing, 2016, 15, 2424-2436.	3.9	38
105	Priority-aware pricing-based capacity sharing scheme for beyond-wireless body area networks. Computer Networks, 2016, 98, 29-43.	3.2	23
106	ACCESS. , 2016, , .		9
107	Key Generation From Wireless Channels: A Review. IEEE Access, 2016, 4, 614-626.	2.6	306
108	A Survey of Channel Bonding for Wireless Networks and Guidelines of Channel Bonding for Futuristic Cognitive Radio Sensor Networks. IEEE Communications Surveys and Tutorials, 2016, 18, 924-948.	24.8	119
109	Maximizing Spectral Efficiency for Energy Harvesting-Aware WBAN. IEEE Journal of Biomedical and Health Informatics, 2017, 21, 732-742.	3.9	37
110	Delay and energy consumption analysis of priority guaranteed MAC protocol for wireless body area networks. Wireless Networks, 2017, 23, 1249-1266.	2.0	60

#	ARTICLE	IF	CITATIONS
111	Collision analysis of CSMA/CA based MAC protocol for duty cycled WBANs. <i>Wireless Networks</i> , 2017, 23, 1429-1447.	2.0	9
112	Theoretical Analysis of Magneto-Inductive THz Wireless Communications and Power Transfer With Multi-Layer Graphene Nano-Coils. <i>IEEE Transactions on Molecular, Biological, and Multi-Scale Communications</i> , 2017, 3, 60-70.	1.4	19
113	Implanted Wireless Body Area Networks: Energy Management, Specific Absorption Rate and Safety Aspects. , 2017, , 17-36.		6
114	Backscattering Wireless-Powered Communications. , 0, , 217-245.		0
115	A wireless continuous patient monitoring system for dengue: Wi-Mon. , 2017, , .		5
116	Automatic design of fuzzy logic controllers for medium access control in wireless body area networks " An evolutionary approach. <i>Applied Soft Computing Journal</i> , 2017, 56, 245-261.	4.1	8
117	Efficient Patient Care Through Wireless Body Area Networks"Enhanced Technique for Handling Emergency Situations with Better Quality of Service. <i>Wireless Personal Communications</i> , 2017, 95, 3755-3769.	1.8	12
118	Overviewing the State of the Transactions: An Editorial by the Outgoing Editor-in-Chief. <i>IEEE Transactions on Wireless Communications</i> , 2017, 16, 675-679.	6.1	0
119	Point-to-Point Wireless Information and Power Transfer in WBAN With Energy Harvesting. <i>IEEE Access</i> , 2017, 5, 8620-8628.	2.6	37
120	Performance analysis of reliability in wireless body area networks. <i>IET Communications</i> , 2017, 11, 925-929.	1.5	13
121	On-body signal propagation in WBANs for firefighters personal protective equipment: Statistical characterization and performance assessment. , 2017, , .		2
122	Wearable Textile Antennas: Examining the effect of bending on their performance. <i>IEEE Antennas and Propagation Magazine</i> , 2017, 59, 54-59.	1.2	97
123	A Relay-Aided Transmission Power Control Method in Wireless Body Area Networks. <i>IEEE Access</i> , 2017, 5, 8408-8418.	2.6	22
124	Wireless Energy and Information Transfer in WBAN: An Overview. <i>IEEE Network</i> , 2017, 31, 90-96.	4.9	50
125	An Overview of the Electromagnetic Simulation-Based Channel Modeling Techniques for Wireless Body Area Network Applications. <i>IEEE Access</i> , 2017, 5, 10622-10632.	2.6	24
126	Wireless Body Area Network (WBAN). <i>ACM Computing Surveys</i> , 2018, 50, 1-38.	16.1	138
127	Enclosed mmWave Wearable Networks: Feasibility and Performance. <i>IEEE Transactions on Wireless Communications</i> , 2017, 16, 2300-2313.	6.1	12
128	An Ultra Wideband Survey: Global Regulations and Impulse Radio Research Based on Standards. <i>IEEE Communications Surveys and Tutorials</i> , 2017, 19, 874-890.	24.8	52



#	ARTICLE	IF	CITATIONS
129	TMP: Tele-Medicine Protocol for Slotted 802.15.4 With Duty-Cycle Optimization in Wireless Body Area Sensor Networks. IEEE Sensors Journal, 2017, 17, 1925-1936.	2.4	38
130	Wireless body area network for e-health applications: Overview. , 2017, , .		15
131	Tackling the Fidelity-Energy Trade-Off in Wireless Body Sensor Networks. , 2017, , .		10
132	Performance evaluation of reliable communications for wireless in-body sensor networks. , 2017, , .		1
133	On improving the saturation performance of IEEE802.15.6-based MAC protocols in Wireless Body Area Networks. , 2017, , .		4
134	Ultra Low Power Wake-Up Radios: A Hardware and Networking Survey. IEEE Communications Surveys and Tutorials, 2017, 19, 2117-2157.	24.8	193
135	Battery-friendly scheduling policy in MAC layer for WBAN data packets transmission. IET Communications, 2017, 11, 1423-1430.	1.5	5
136	Transmission-Rate-Adaption Assisted Energy-efficient Resource Allocation with QoS Support in WBANs. IEEE Sensors Journal, 2017, , 1-1.	2.4	17
137	A novel optical body area network for transmission of multiple patient vital signs. , 2017, , .		16
138	QoS in Body Area Networks. ACM Transactions on Sensor Networks, 2017, 13, 1-46.	2.3	22
139	A Survey on Biofeedback and Actuation in Wireless Body Area Networks (WBANs). IEEE Reviews in Biomedical Engineering, 2017, 10, 162-173.	13.1	26
140	Multi-channel broadcast in asymmetric duty cycling wireless body area networks. , 2017, , .		2
141	Hadoop-Based Intelligent Care System (HICS). ACM Transactions on Internet Technology, 2018, 18, 1-24.	3.0	59
142	Exploiting spatial degrees of freedom for high data rate ultrasound communication with implantable devices. Applied Physics Letters, 2017, 111, .	1.5	26
143	Cooperative resynchronization to improve the reliability of colocated IEEE802.15.4 -TSCH networks in dense deployments. Ad Hoc Networks, 2017, 64, 112-126.	3.4	13
144	A 1.9-mW 750-kb/s 2.4-GHz F-OOK Transmitter With Symmetric FM Template and High-Point Modulation PLL. IEEE Journal of Solid-State Circuits, 2017, 52, 2627-2635.	3.5	9
145	Designing an energy efficient WBAN routing protocol. , 2017, , .		20
146	Harnessing Partial Packets in Wireless Networks: Throughput and Energy Benefits. IEEE Transactions on Wireless Communications, 2017, 16, 694-704.	6.1	8

#	ARTICLE	IF	CITATIONS
147	Biofeedback Technologies for Wireless Body Area Networks. <i>Microsystems and Nanosystems</i> , 2017, , 659-686.	0.1	1
148	An AHP-Based Interface and Channel Selection for Multi-channel MAC Protocol in IoT Ecosystem. <i>Wireless Personal Communications</i> , 2017, 93, 97-118.	1.8	8
149	In-Body Routing Protocols for Wireless Body Sensor Networks. , 2017, , .		1
150	I-shaped dual-resonant gigahertz antenna for radiolocation and military applications. , 2017, , .		0
151	Radio channel measurements in 868 MHz off-body communications in a ferry environment. , 2017, , .		5
152	Impulse Radio Ultra-Wideband Communications for Localization and Tracking of Human Body and Limbs Movement for Healthcare Applications. <i>IEEE Transactions on Antennas and Propagation</i> , 2017, 65, 7298-7309.	3.1	66
153	Communication system design for magnetic induction-based Wireless Body Area Network. , 2017, , .		5
154	A survey on energy efficient routing protocols in wireless body area networks (WBAN). , 2017, , .		16
155	An overview on wireless body area networks. , 2017, , .		6
156	Cross-Layer Design and Performance Analysis of Quality of Service Control Scheme for Wireless Body Area Networks. <i>IEEE Access</i> , 2017, 5, 22462-22470.	2.6	6
157	Combining capacitive coupling with conductive clothes. , 2017, , .		9
158	Review of quality of service in the mobile patient monitoring systems. , 2017, , .		4
159	QoS-based interference mitigation scheme in wireless body area networks. , 2017, , .		3
160	WBAN on hardware: Implementation and optimization based on IEEE 802.15.6. , 2017, , .		2
161	Emergency data handling medium access control protocol for wireless body area network. , 2017, , .		1
162	An interference mitigation MAC protocol for wireless body area network. , 2017, , .		5
163	Performance analysis of IEEE 802.15.6 CSMA/CA using equilibrium point analysis. , 2017, , .		2
164	Mapping critical illness early signs to priority alert transmission on wireless networks. , 2017, , .		2

#	ARTICLE	IF	CITATIONS
165	A 0.13pJ/bit, referenceless transceiver with clock edge modulation for a wired intra-BAN communication. , 2017, , .		2
166	Medical Body Area Networks: Mobility and channel Modeling. , 2017, , .		1
167	A low complexity UWB PHY baseband transceiver for IEEE 802.15.6 WBAN. , 2017, , .		2
168	A wireless continuous patient monitoring system for dengue; Wi-Mon. , 2017, , .		5
169	Development of real-time ECG signal monitoring system for telemedicine application. , 2017, , .		5
170	A Study on Coexistence Capability Evaluations of the Enhanced Channel Hopping Mechanism in WBANs. Sensors, 2017, 17, 151.	2.1	5
171	IEEE 802.15.4 Frame Aggregation Enhancement to Provide High Performance in Life-Critical Patient Monitoring Systems. Sensors, 2017, 17, 241.	2.1	16
172	A QoS Optimization Approach in Cognitive Body Area Networks for Healthcare Applications. Sensors, 2017, 17, 780.	2.1	20
173	Bio-Inspired Distributed Transmission Power Control Considering QoS Fairness in Wireless Body Area Sensor Networks. Sensors, 2017, 17, 2344.	2.1	7
174	Distributed Group-Based Mobility Management Scheme in Wireless Body Area Networks. Wireless Communications and Mobile Computing, 2017, 2017, 1-11.	0.8	2
175	Traffic Adaptive MAC Protocols in Wireless Body Area Networks. Wireless Communications and Mobile Computing, 2017, 2017, 1-14.	0.8	31
176	Secure lightweight routing(SLR) strategy for wireless body area networks. , 2017, , .		4
177	Throughput assurance of wireless body area networks coexistence based on stochastic geometry. PLoS ONE, 2017, 12, e0171123.	1.1	4
178	A Survey on Mobility Support in Wireless Body Area Networks. Sensors, 2017, 17, 797.	2.1	38
179	A Systematic Investigation of Rectangular Patch Antenna Bending Effects for Wearable Applications. IEEE Transactions on Antennas and Propagation, 2018, 66, 2219-2228.	3.1	77
180	The role of science and technology in sport. Procedia Computer Science, 2018, 129, 489-495.	1.2	15
181	Energy efficiency comparison between data rate control and transmission power control algorithms for wireless body sensor networks. International Journal of Distributed Sensor Networks, 2018, 14, 155014771775003.	1.3	38
182	Priority-based capacity and power allocation in co-located WBANs using Stackelberg and bargaining games. Journal of Supercomputing, 2018, 74, 3114-3147.	2.4	6

#	ARTICLE	IF	CITATIONS
183	An Analytical Framework for IEEE 802.15.6-Based Wireless Body Area Networks With Instantaneous Delay Constraints and Shadowing Interruptions. <i>IEEE Transactions on Vehicular Technology</i> , 2018, 67, 6355-6369.	3.9	3
184	Design and Analysis of 2.4 GHz $30\text{-}\mu\text{m}$ CMOS LNAs for Wearable WSN Applications. <i>IEEE Transactions on Circuits and Systems I: Regular Papers</i> , 2018, 65, 891-903.	3.5	39
185	Transmission Management of Delay-Sensitive Medical Packets in Beyond Wireless Body Area Networks: A Queueing Game Approach. <i>IEEE Transactions on Mobile Computing</i> , 2018, 17, 2209-2222.	3.9	33
186	Collaborative Link-Aware Protocols for Energy-Efficient and QoS Wireless Body Area Networks Using Integrated Sensors. <i>IEEE Internet of Things Journal</i> , 2018, 5, 132-149.	5.5	23
187	Systematic node management mechanism using ZigBee-based real-time vital sign information monitoring system to manage large numbers of patients. <i>Technology and Health Care</i> , 2018, 26, 29-41.	0.5	2
188	An Energy Conserving Routing Scheme for Wireless Body Sensor Nanonetwork Communication. <i>IEEE Access</i> , 2018, 6, 9186-9200.	2.6	71
189	Path Loss Algorithms for Data Resilience in Wireless Body Area Networks for Healthcare Framework. , 2018, , 285-313.		8
190	A Low Traffic Overhead Transmission Power Control for Wireless Body Area Networks. <i>IEEE Sensors Journal</i> , 2018, 18, 1301-1313.	2.4	25
191	An energy and link aware next node selection protocol for body area networks. , 2018, , .		4
192	Ultrawideband Technology for Medical In-Body Sensor Networks: An Overview of the Human Body as a Propagation Medium, Phantoms, and Approaches for Propagation Analysis. <i>IEEE Antennas and Propagation Magazine</i> , 2018, 60, 19-33.	1.2	45
193	Energy-Harvesting Wireless Sensor Networks (EH-WSNs). <i>ACM Transactions on Sensor Networks</i> , 2018, 14, 1-50.	2.3	247
194	Power Management for Kinetic Energy Harvesting IoT. <i>IEEE Sensors Journal</i> , 2018, 18, 4336-4345.	2.4	31
195	Hybrid FGWO Based FLCs Modeling for Performance Enhancement in Wireless Body Area Networks. <i>Wireless Personal Communications</i> , 2018, 100, 1163-1199.	1.8	5
196	Theoretical Modeling and Analysis of Magnetic Induction Communication in Wireless Body Area Networks (WBANs). <i>IEEE Journal of Electromagnetics, RF and Microwaves in Medicine and Biology</i> , 2018, 2, 48-55.	2.3	21
197	QoS-based adaptive power control scheme for co-located WBANs: a cooperative bargaining game theoretic perspective. <i>Wireless Networks</i> , 2018, 24, 3129-3139.	2.0	10
198	Gait-Cycle-Driven Transmission Power Control Scheme for a Wireless Body Area Network. <i>IEEE Journal of Biomedical and Health Informatics</i> , 2018, 22, 697-706.	3.9	34
199	A Comparative Study of Interference and Mitigation Techniques in Wireless Body Area Networks. <i>Wireless Personal Communications</i> , 2018, 98, 2333-2365.	1.8	18
200	Privacy Preserving IPv6 Address Auto-Configuration for Internet of Things. <i>Lecture Notes in Networks and Systems</i> , 2018, , 3-14.	0.5	3

#	ARTICLE	IF	CITATIONS
201	A power-aware 2-covered path routing for wireless body area networks with variable transmission ranges. <i>Journal of Parallel and Distributed Computing</i> , 2018, 118, 379-397.	2.7	10
202	Telehealth Technology: Potentials, Challenges and Research Directions for Developing Countries. <i>IFMBE Proceedings</i> , 2018, , 523-528.	0.2	10
203	A real-time streaming control for quality-of-service coexisting wireless body area networks. <i>Applied Soft Computing Journal</i> , 2018, 68, 719-732.	4.1	9
204	Secure sensors data acquisition and communication protection in eHealthcare: Review on the state of the art. <i>Telematics and Informatics</i> , 2018, 35, 702-726.	3.5	18
205	Survey and Taxonomy of Transmissions Power Control Mechanisms for Wireless Body Area Networks. <i>IEEE Communications Surveys and Tutorials</i> , 2018, 20, 1292-1328.	24.8	24
206	A Study on Lifetime Enhancement and Reliability in Wearable Wireless Body Area Networks. <i>International Journal of User-Driven Healthcare</i> , 2018, 8, 46-59.	0.1	0
207	Reliable emergency data transmission using transmission mode selection in wireless body area network. <i>Cogent Engineering</i> , 2018, 5, 1562859.	1.1	23
208	Using the Characteristic Value of the Body Channel for Encryption of Body Area Networks. , 2018, , .		0
209	Performance Evaluation of Error Control Scheme in ETSI SmartBAN PHY. , 2018, , .		1
210	Coexistence Throughput Analysis of Cyber-Physical WBAN System in Presence of WLAN. , 2018, , .		6
211	Energy-Efficient and Low Complexity Channel Coding for Wireless Body Area Networks. , 2018, , .		3
212	Performance Evaluation of Quality of Service Parameters for Stationary and Moving Body in Wireless Body Area Networks. , 2018, , .		0
213	The Development of Wireless Body Area Network for Motion Sensing Application. <i>IOP Conference Series: Materials Science and Engineering</i> , 2018, 336, 012014.	0.3	3
214	Performance Evaluation of Dynamic HUB Selection Algorithm for WBAN. , 2018, , .		2
215	A Low Power Packet Detection Algorithm for FM-UWB PHY for IEEE 802.15.6 WBAN. , 2018, , .		0
216	Fog-Supported Internet of Things (IoTs) Architecture for Remote Patient Monitoring Systems Using Wireless Body Area Sensor Networks. , 2018, , .		6
217	EIMAC: a multi-channel MAC protocol towards energy efficiency and low interference for WBANs. <i>IET Communications</i> , 2018, 12, 1954-1962.	1.5	6
218	Improving the Energy Efficiency of a Wireless Body Area Network Using a Redundant Coordinator for Healthcare Applications. , 2018, , .		2

#	ARTICLE	IF	CITATIONS
219	Performance Evaluation of a Quality of Service Control Scheme in Multi-Hop WBAN Based on IEEE 802.15.6. <i>Sensors</i> , 2018, 18, 3969.	2.1	11
220	Biometric Authentication and Verification for Medical Cyber Physical Systems. <i>Electronics (Switzerland)</i> , 2018, 7, 436.	1.8	16
221	Survey of Wearable EEG and ECG Acquisition Technologies for Body Area Network. , 2018, , .		5
222	Implementation and Analysis of Data Security in a Real Time IoT Based Healthcare Application. , 2018, , .		0
223	Detection Scheme of Selfish Node in WBAN Utilizing CSMA/CA Based on IEEE 802.15.6. , 2018, , .		1
224	An Efficient and Certificateless Conditional Privacy-Preserving Authentication Scheme for Wireless Body Area Networks Big Data Services. <i>IEEE Access</i> , 2018, 6, 69603-69611.	2.6	30
225	An adaptive communication framework for medical wireless body area networks. , 2018, , .		0
226	Wireless body area network's application for motion detection based on Android smartwatch. <i>MATEC Web of Conferences</i> , 2018, 197, 11020.	0.1	1
227	An Individual Differentiated Coexisting Mechanism for Multiple Wireless Body Area Networks Based on Game Theory. <i>IEEE Access</i> , 2018, 6, 54564-54581.	2.6	13
228	Data Privacy Protection Based on Micro Aggregation with Dynamic Sensitive Attribute Updating. <i>Sensors</i> , 2018, 18, 2307.	2.1	9
229	Biofeedback Systems in Sport and Rehabilitation. <i>Human-computer Interaction Series</i> , 2018, , 61-79.	0.4	0
230	FoG Assisted Secure De-duplicated Data Dissemination in Smart Healthcare IoT. , 2018, , .		21
231	Green Communication for Wireless Body Area Networks: Energy Aware Link Efficient Routing Approach. <i>Sensors</i> , 2018, 18, 3237.	2.1	67
232	Performance Limitations of Biofeedback System Technologies. <i>Human-computer Interaction Series</i> , 2018, , 81-116.	0.4	2
233	Improving the Efficiency of Magnetic Induction-Based Wireless Body Area Network (WBAN). , 2018, , .		7
234	Relay-Enabled Task Offloading Management for Wireless Body Area Networks. <i>Applied Sciences (Switzerland)</i> , 2018, 8, 1409.	1.3	12
235	A Review of Medication Adherence Monitoring Technologies. <i>Applied System Innovation</i> , 2018, 1, 14.	2.7	89
236	Performance Analysis of Priority-Based IEEE 802.15.6 Protocol in Saturated Traffic Conditions. <i>IEEE Access</i> , 2018, 6, 66198-66209.	2.6	14

#	ARTICLE	IF	CITATIONS
237	Low-Delay Channel Access Technique for Critical Data Transmission in Wireless Body Area Network. Communications in Computer and Information Science, 2018, , 144-153.	0.4	2
238	Temperature-Aware Routing Using Secondary Sink in Wireless Body Area Sensor Network. International Journal of E-Health and Medical Communications, 2018, 9, 38-58.	1.4	5
239	A Novel Bitrate Adaptation Method for Heterogeneous Wireless Body Area Networks. Applied Sciences (Switzerland), 2018, 8, 1209.	1.3	7
240	Potential of Sub-GHz Wireless for Future IoT Wearables and Design of Compact 915 MHz Antenna. Sensors, 2018, 18, 22.	2.1	24
241	Highly Efficient Privacy-Preserving Key Agreement for Wireless Body Area Networks. , 2018, , .		8
242	Design of RFID Textile Dipole Antenna. , 2018, , .		0
243	Applications to Improve the Assistance of First Aiders in Outdoor Scenarios. , 2018, , 175-196.		1
244	Virtual Local-Hub: A Service Platform on the Edge of Networks for Wearable Devices. IEEE Network, 2018, 32, 114-121.	4.9	40
245	Received Signal Strength Based Gait Authentication. IEEE Sensors Journal, 2018, 18, 6727-6734.	2.4	23
246	An empirical system loss model for body area networks in a passenger ferry environment. , 2018, , .		1
247	An Efficient Transmission Approach for Information-Centric Based Wireless Body Area Networks. Lecture Notes in Computer Science, 2018, , 236-245.	1.0	0
248	An Optimal Online Resource Allocation Algorithm for Energy Harvesting Body Area Networks. Algorithms, 2018, 11, 14.	1.2	2
249	An Off-Body Narrowband and Ultra-Wide Band Channel Model for Body Area Networks in a Ferryboat Environment. Applied Sciences (Switzerland), 2018, 8, 988.	1.3	12
250	An Adaptive Backoff Mechanism for IEEE 802.15.4 Beacon-Enabled Wireless Body Area Networks. Wireless Communications and Mobile Computing, 2018, 2018, 1-15.	0.8	16
251	Internet of everything and everybody: Architecture and service virtualization. Computer Communications, 2018, 131, 66-72.	3.1	19
252	Identifying bottlenecks in work processes: Elderly care. , 2018, , .		2
253	Mixed H2/H <sup>∞</sup> -Based Fusion Estimation for Energy-Limited Multi-Sensors in Wearable Body Networks. Sensors, 2018, 18, 56.	2.1	1
254	Mutual-Information-Based Incremental Relaying Communications for Wireless Biomedical Implant Systems. Sensors, 2018, 18, 515.	2.1	19

#	ARTICLE	IF	CITATIONS
255	Characterization of the Body-to-Body Propagation Channel for Subjects during Sports Activities. Sensors, 2018, 18, 620.	2.1	7
256	Efficient Low-Power Digital Baseband Transceiver for IEEE 802.15.6 Narrowband Physical Layer. IEEE Transactions on Very Large Scale Integration (VLSI) Systems, 2018, 26, 2372-2385.	2.1	2
257	Wireless data links for next-generation networked micro-implantables. , 2018, , .		25
258	CoAP-based group mobility management protocol for the Internet-of-Things in WBAN environment. Future Generation Computer Systems, 2018, 88, 309-318.	4.9	11
259	Context-Aware Optimization for Energy-Efficient and QoS Wireless Body Area Networks with Human Dynamics. , 2018, , .		1
261	A dynamic swift association scheme for wireless body area networks. Transactions on Emerging Telecommunications Technologies, 2022, 33, e3724.	2.6	0
262	Body Area Networks in Healthcare: A Brief State of the Art. Applied Sciences (Switzerland), 2019, 9, 3248.	1.3	9
263	A Mac Protocol with Dynamic Allocation of Time Slots Based on Traffic Priority in Wireless Body Area Networks. International Journal of Computer Networks and Communications, 2019, 11, 25-41.	0.3	6
264	Bluetooth Low Energy Throughput in Densely Deployed Radio Environment. , 2019, , .		11
265	Sensor Single and Multiple Anomaly Detection in Wireless Sensor Networks for Healthcare. , 2019, , .		10
266	The role of technology for accelerated motor learning in sport. Personal and Ubiquitous Computing, 2021, 25, 969-978.	1.9	13
267	A Comparative Study of Computational Methods for Compressed Sensing Reconstruction of EMC Signal. Sensors, 2019, 19, 3531.	2.1	10
268	A priority-based congestion-avoidance routing protocol using IoT-based heterogeneous medical sensors for energy efficiency in healthcare wireless body area networks. International Journal of Distributed Sensor Networks, 2019, 15, 155014771985398.	1.3	38
269	CIPPPA: Conditional Identity Privacy-Preserving Public Auditing for Cloud-Based WBANs Against Malicious Auditors. IEEE Transactions on Cloud Computing, 2021, 9, 1362-1375.	3.1	56
270	A comprehensive review of wireless body area network. Journal of Network and Computer Applications, 2019, 143, 178-198.	5.8	117
271	Bio-Inspired Approach for Inter-WBAN Coexistence. IEEE Transactions on Vehicular Technology, 2019, 68, 7236-7240.	3.9	14
272	Energy-Efficient Harvested-Aware Clustering and Cooperative Routing Protocol for WBAN (E-HARP). IEEE Access, 2019, 7, 100036-100050.	2.6	57
273	HUBsFLOW: A novel interface protocol for SDN-enabled WBANs. Computer Networks, 2019, 160, 105-117.	3.2	24



#	ARTICLE	IF	CITATIONS
274	Resource allocation for wireless information and power transfer based on WBAN. Physical Communication, 2019, 37, 100865.	1.2	2
277	An NFV-Based Service Framework for IoT Applications in Edge Computing Environments. IEEE Transactions on Network and Service Management, 2019, 16, 1419-1434.	3.2	22
278	A Systematic Review of Wireless Body Area Network. , 2019, , .		9
279	WBAN: A Smart Approach to Next Generation e-healthcare System. , 2019, , .		28
280	Sum-Throughput Maximization by Power Allocation in WBAN With Relay Cooperation. IEEE Access, 2019, 7, 124727-124736.	2.6	9
281	Ad-hoc network routing protocols for wireless body area network. , 2019, , .		1
282	Robust and High-Efficiency Wireless Body Area Networks with Spoof Surface Plasmons on Clothing. , 2019, , .		3
283	Effect of Block ACK on Applicationâ€œLevel QoS in IEEE 802.15.6 CSMA/CA Wireless BANs. , 2019, , .		3
284	An Anonymous Mutual Authentication and Key Agreement Scheme in WBAN. , 2019, , .		7
285	A Survey on Simultaneous Wireless Information and Power Transfer With Cooperative Relay and Future Challenges. IEEE Access, 2019, 7, 19166-19198.	2.6	116
286	UAV-enabled healthcare architecture: Issues and challenges. Future Generation Computer Systems, 2019, 97, 425-432.	4.9	69
287	An efficient resource allocation algorithm based on vertex coloring to mitigate interference among coexisting WBANs. Computer Networks, 2019, 151, 132-146.	3.2	4
288	Chain Modeling of Molecular Communications for Body Area Network. Sensors, 2019, 19, 395.	2.1	4
289	A Virtual Reality Soldier Simulator with Body Area Networks for Team Training. Sensors, 2019, 19, 451.	2.1	23
290	Analysis on the Effects of the Human Body on the Performance of Electro-Textile Antennas for Wearable Monitoring and Tracking Application. Materials, 2019, 12, 1636.	1.3	29
291	A UKF-Based Emergency Aware Fusion Model in a Heterogeneous Network for Wireless Body Networks. IEEE Access, 2019, 7, 68930-68939.	2.6	1
292	Implementation of wearable glucose sensor node with energy harvesting for Wireless Body Area Network. , 2019, , .		1
293	Simulation-based Models of the Galvanic Coupling Intra-body Communication. , 2019, , .		4

#	ARTICLE	IF	CITATIONS
294	Patient Mobility Support for Indoor Non-Directed Optical Body Area Networks. Sensors, 2019, 19, 2297.	2.1	15
295	Design and Analysis of a Low-Complexity Decoding Algorithm for Spinal Codes. IEEE Transactions on Vehicular Technology, 2019, 68, 4667-4679.	3.9	6
296	An Enhanced Channel Access Method to Mitigate the Effect of Interference Among Body Sensor Networks for Smart Healthcare. IEEE Sensors Journal, 2019, 19, 7082-7088.	2.4	15
297	User Behavior Driven MAC Scheduling for Body Sensor Networks: A Cross-Layer Approach. IEEE Sensors Journal, 2019, 19, 7755-7765.	2.4	9
298	An Efficient and Reliable Directed Diffusion Routing Protocol in Wireless Body Area Networks. IEEE Access, 2019, 7, 58883-58892.	2.6	17
299	Authentication protocols for wireless body area network with key management approach. Journal of Discrete Mathematical Sciences and Cryptography, 2019, 22, 219-240.	0.5	22
300	Pervasive and Personalized Ambient Parameters Monitoring: A Wearable, Modular, and Configurable Watch. IEEE Access, 2019, 7, 20126-20143.	2.6	16
301	Performance evaluation of framed slotted ALOHA with reservation packets and successive interference cancellation for M2M networks. Computer Networks, 2019, 155, 15-30.	3.2	13
302	A Low-Profile and Wideband Unidirectional Antenna Using Bandwidth Enhanced Resonance-Based Reflector for Fifth Generation (5G) Systems Applications. IEEE Access, 2019, 7, 27352-27361.	2.6	9
303	Performance Optimization of the IEEE 802.15.4-Based Link Quality Protocols for WBASNs/IoTs in a Hospital Environment Using Fuzzy Logic. IEEE Sensors Journal, 2019, 19, 5865-5877.	2.4	14
304	Designing insistence-aware medium access control protocol and energy conscious routing in quality-of-service-guaranteed wireless body area network. International Journal of Distributed Sensor Networks, 2019, 15, 155014771881584.	1.3	13
305	Maximising energy efficiency for direct communication links in wireless body area networks. IET Wireless Sensor Systems, 2019, 9, 32-41.	1.3	3
306	Energy Budget Based Multiple Attribute Decision Making (EB-MADM) Algorithm for Cooperative Clustering in Wireless Body Area Networks. Journal of Electrical Engineering and Technology, 2019, 14, 421-433.	1.2	21
307	2TM-MAC: A Two-Tier Multi-Channel Interference Mitigation MAC Protocol for Coexisting WBANs. , 2019, , .		5
308	Channel Prediction based Enhanced Throughput and Channel Aware MAC in SmartBAN Standard. , 2019, , .		0
309	Multiple Traffics Support in Wireless Body Area Network over Cognitive Cooperative Communication. , 2019, , .		20
310	Gait-cycle Aware Relay Selection, Scheduling and Power Control for Wireless Body Area Networks. , 2019, , .		2
311	Evaluation of Wireless Body Area Network Utilizing Super Orthogonal Convolutional Code. , 2019, , .		0

#	ARTICLE	IF	CITATIONS
312	Power Aware Reliable Lightweight (PARL) Routing Protocol for Wireless Body Area Networks. , 2019, , .		1
313	A Survey on LPWAN Technologies in WBAN for Remote Health-Care Monitoring. Sensors, 2019, 19, 5268.	2.1	51
314	A Cross-Layer Approach for Wireless Body Area Networks. IEEE Latin America Transactions, 2019, 17, 1537-1545.	1.2	0
315	Constrained error rate analysis for wireless body area networks. IET Wireless Sensor Systems, 2019, 9, 366-374.	1.3	1
316	An IEEE 802.15.6-Based MAC Frame Aggregation Approach for Wireless Body Area Networks. , 2019, , .		2
317	The Internet of Things: A Review of Enabled Technologies and Future Challenges. IEEE Access, 2019, 7, 7606-7640.	2.6	152
318	Enabling Ultrasound In-Body Communication: FIR Channel Models and QAM Experiments. IEEE Transactions on Biomedical Circuits and Systems, 2019, 13, 135-144.	2.7	24
319	Comprehensive Survey of Galvanic Coupling and Alternative Intra-Body Communication Technologies. IEEE Communications Surveys and Tutorials, 2019, 21, 1145-1164.	24.8	39
320	Future of Big Data and Deep Learning for Wireless Body Area Networks. SpringerBriefs in Computer Science, 2019, , 53-77.	0.2	9
321	Integrated Performance Evaluation of the Smart Body Area Networks Physical Layer for Future Medical and Healthcare IoT. Sensors, 2019, 19, 30.	2.1	9
322	Classifications and Applications of Physical Layer Security Techniques for Confidentiality: A Comprehensive Survey. IEEE Communications Surveys and Tutorials, 2019, 21, 1773-1828.	24.8	424
323	Experimental Analysis of Ultra-Wideband Body-to-Body Communication Channel Characterization in an Indoor Environment. IEEE Transactions on Antennas and Propagation, 2019, 67, 1779-1789.	3.1	20
324	A Comprehensive Study of the Impact of Beacon Order and Superframe Order Values on Quality of Service in Multi-hop Wireless Networks on IEEE 802.15.4. Wireless Personal Communications, 2019, 104, 373-385.	1.8	3
325	A Self-Organized Dynamic Clustering Method and Its Multiple Access Mechanism for Multiple WBANs. IEEE Internet of Things Journal, 2019, 6, 6042-6051.	5.5	22
326	DSCB: Dual sink approach using clustering in body area network. Peer-to-Peer Networking and Applications, 2019, 12, 357-370.	2.6	50
327	Survey on Monitoring and Quality Controlling of the Mobile Biosignal Delivery. Interdisciplinary Sciences, Computational Life Sciences, 2019, 11, 307-319.	2.2	0
328	Challenges in wireless communication for connected sensors and wearable devices used in sport biofeedback applications. Future Generation Computer Systems, 2019, 92, 582-592.	4.9	60
329	QoS supported adaptive and multichannel MAC protocol in vehicular ad-hoc network. Cluster Computing, 2019, 22, 3325-3337.	3.5	7

#	ARTICLE	IF	CITATIONS
330	A lightweight method of data encryption in BANs using electrocardiogram signal. <i>Future Generation Computer Systems</i> , 2019, 92, 800-811.	4.9	23
331	Technological aspects of WBANs for health monitoring: a comprehensive review. <i>Wireless Networks</i> , 2019, 25, 1125-1157.	2.0	65
332	Resource allocation algorithm with worst case delay guarantees in energy harvesting body area networks. <i>Peer-to-Peer Networking and Applications</i> , 2019, 12, 74-87.	2.6	6
333	Cooperative Coevolution Design of Multilevel Fuzzy Logic Controllers for Media Access Control in Wireless Body Area Networks. <i>IEEE Transactions on Emerging Topics in Computational Intelligence</i> , 2020, 4, 336-350.	3.4	11
334	Performance Analysis of Scheduled Access Mode of the IEEE 802.15.6 MAC Protocol under Non-Ideal Channel Conditions. <i>IEEE Transactions on Mobile Computing</i> , 2020, 19, 935-953.	3.9	10
335	CMDP-based intelligent transmission for wireless body area network in remote health monitoring. <i>Neural Computing and Applications</i> , 2020, 32, 829-837.	3.2	19
336	Energy efficient protocol for routing and scheduling in wireless body area networks. <i>Wireless Networks</i> , 2020, 26, 1265-1273.	2.0	34
337	A dynamic and interoperable communication framework for controlling the operations of wearable sensors in smart healthcare applications. <i>Computer Communications</i> , 2020, 149, 17-26.	3.1	91
338	UWB Channel Characterization for Compact L-Shape Configurations for Body-Centric Positioning Applications. <i>IEEE Antennas and Wireless Propagation Letters</i> , 2020, 19, 29-33.	2.4	7
339	Link quality and energy utilization based preferable next hop selection routing for wireless body area networks. <i>Computer Communications</i> , 2020, 149, 382-392.	3.1	74
340	A Hybrid Fuzzy-Genetic Algorithm for Performance Optimization of Cyber Physical Wireless Body Area Networks. <i>International Journal of Fuzzy Systems</i> , 2020, 22, 548-569.	2.3	20
341	Improved energy efficient design in software defined wireless electroencephalography sensor networks (WESN) using distributed architecture to remove artifact. <i>Computer Communications</i> , 2020, 152, 266-271.	3.1	7
343	An Energy-Efficient and Reliable Scheduling Strategy for Dynamic WBANs With Channel Periodicity Exploitation. <i>IEEE Sensors Journal</i> , 2020, 20, 2812-2824.	2.4	18
344	A Review of Data Privacy Techniques for Wireless Body Area Networks in Telemedicine. , 2020, , .		7
345	Accurate fall detection for patients with Parkinson's disease based on a data event algorithm and wireless sensor nodes. <i>Measurement: Journal of the International Measurement Confederation</i> , 2020, 156, 107573.	2.5	24
346	Energy-efficient DAC switching technique for single-ended SAR ADCs. <i>AEU - International Journal of Electronics and Communications</i> , 2020, 124, 153334.	1.7	10
347	An efficient cluster optimization framework for internet of things (IoT) based Wireless Body Area Networks. <i>Journal of Enterprise Information Management</i> , 2023, 36, 839-860.	4.4	3
348	An Adaptive Energy-Aware Relay Mechanism for IEEE 802.15.6 Wireless Body Area Networks. <i>Wireless Personal Communications</i> , 2020, 115, 2363-2389.	1.8	8

#	ARTICLE	IF	CITATIONS
349	A 915 MHz Wristwatch-Integrated Antenna for Wireless Health Monitoring. , 2020, , .		1
350	Early congenital heart defect diagnosis in neonates using novel WBAN based three-tier network architecture. Journal of King Saud University - Computer and Information Sciences, 2022, 34, 3661-3672.	2.7	3
351	LATOR: Link-Quality Aware and Thermal Aware On-Demand Routing Protocol for WBAN. , 2020, , .		8
352	Throughput Improvement in Backscatter-based Wireless Body Area Network. , 2020, , .		0
353	RECENT ADVANCES IN WEARABLE ANTENNA TECHNOLOGIES: A REVIEW. Progress in Electromagnetics Research B, 2020, 89, 1-27.	0.7	39
354	Performance Analysis of Optical-CDMA for Uplink Transmission in Medical Extra-WBANs. IEEE Access, 2020, 8, 171672-171685.	2.6	9
355	Noncoherent OOK Symbol Detection with Supervised-Learning Approach for BCC. , 2020, , .		2
356	B-Move: A Transmission Scheduler Based on Human Body Movements for WBANs. , 2020, , .		1
357	ETSI SmartBAN Architecture: The Global Vision for Smart Body Area Networks. IEEE Access, 2020, 8, 150611-150625.	2.6	18
358	A Periodic Transmission Line Model for Body Channel Communication. IEEE Access, 2020, 8, 160099-160115.	2.6	11
359	A New Frontier for IoT Security Emerging From Three Decades of Key Generation Relying on Wireless Channels. IEEE Access, 2020, 8, 138406-138446.	2.6	73
360	Future Security Challenges for Smart Societies: Overview from Technical and Societal Perspectives. , 2020, , .		5
361	New Contact Sensorization Smart System for IoT e-Health Applications Based on IBC IEEE 802.15.6 Communications. Sensors, 2020, 20, 7097.	2.1	0
362	Wireless body area network transmissions for iot-based healthcare network: a review. IOP Conference Series: Materials Science and Engineering, 2020, 983, 012017.	0.3	5
363	An Energy Efficient Enhanced Dual-Fuzzy Logic Routing Protocol for Monitoring Activities of the Elderly Using Body Sensor Networks. Electronics (Switzerland), 2020, 9, 723.	1.8	9
364	E-MHMS: enhanced MAC-based secure delay-aware healthcare monitoring system in WBAN. Cluster Computing, 2020, 23, 1725-1740.	3.5	8
365	A new approach for Interference Mitigation in Multiple WBAN Using EMR-Rules. , 2020, , .		1
366	A provably secure and efficient anonymous mutual authentication and key agreement protocol for wearable devices in WBAN. Computer Communications, 2020, 160, 311-325.	3.1	49

#	ARTICLE	IF	CITATIONS
367	A Wristwatch-Based Wireless Sensor Platform for IoT Health Monitoring Applications. <i>Sensors</i> , 2020, 20, 1675.	2.1	40
368	Human activity recognition using magnetic induction-based motion signals and deep recurrent neural networks. <i>Nature Communications</i> , 2020, 11, 1551.	5.8	68
369	Design and Analysis of Joint Source Channel Coding Schemes Over Non-Standard Coding Channels. <i>IEEE Transactions on Vehicular Technology</i> , 2020, 69, 5369-5380.	3.9	19
370	Weighted Energy and QoS based Multi-hop Transmission Routing Algorithm for WBAN. , 2020, , .		13
371	13th EAI International Conference on Body Area Networks. <i>EAI/Springer Innovations in Communication and Computing</i> , 2020, , .	0.9	1
372	Energy Efficient Dynamic Cluster Head and Routing Path Selection Strategy for WBANs. <i>Wireless Personal Communications</i> , 2020, 113, 33-58.	1.8	15
373	Comparative Study of Compressed Sensing for Heart Sound Acquisition in Wireless Body Sensor Networks. <i>IEEE Access</i> , 2020, 8, 22483-22492.	2.6	10
374	Multi-objective optimization framework complying IEEE 802.15.6 communication standards for wireless body area networks. <i>Wireless Networks</i> , 2020, 26, 4339-4362.	2.0	10
375	LDVAS: Lattice-Based Designated Verifier Auditing Scheme for Electronic Medical Data in Cloud-Assisted WBANs. <i>IEEE Access</i> , 2020, 8, 54402-54414.	2.6	9
376	An Energy Efficient QoS Supported Optimized Transmission Rate Technique in WBANs. <i>Wireless Personal Communications</i> , 2021, 117, 235-260.	1.8	13
377	Methods for Adventitious Respiratory Sound Analyzing Applications Based on Smartphones: A Survey. <i>IEEE Reviews in Biomedical Engineering</i> , 2021, 14, 98-115.	13.1	12
378	Adaptive Body Area Networks Using Kinematics and Biosignals. <i>IEEE Journal of Biomedical and Health Informatics</i> , 2021, 25, 623-633.	3.9	17
379	Distributed Pricing Policy for Cloud-Assisted Body-to-Body Networks with Optimal QoS and Energy Considerations. <i>IEEE Transactions on Services Computing</i> , 2021, 14, 668-682.	3.2	12
380	Wearable Magnetoinductive Waveguide for Low-Loss Wireless Body Area Networks. <i>IEEE Transactions on Antennas and Propagation</i> , 2021, 69, 2864-2876.	3.1	11
381	Joint Power Allocation in Classified WBANs With Wireless Information and Power Transfer. <i>IEEE Internet of Things Journal</i> , 2021, 8, 989-1000.	5.5	12
382	Remote health monitoring protocols for IoT-enabled healthcare infrastructure. , 2021, , 163-188.		8
383	Channel Resource Scheduling for Stringent Demand of Emergency Data Transmission in WBANs. <i>IEEE Transactions on Wireless Communications</i> , 2021, 20, 2341-2352.	6.1	18
384	Improved unsupervised coloring algorithm for spectrum allocation in multiple wireless body area networks. <i>Ad Hoc Networks</i> , 2021, 111, 102326.	3.4	6

#	ARTICLE	IF	CITATIONS
385	Quadrilateral Spatial Diversity Circularly Polarized MIMO Cubic Implantable Antenna System for Biotelemetry. IEEE Transactions on Antennas and Propagation, 2021, 69, 1260-1272.	3.1	38
386	Lifetime Enhancement and Reliability in Wireless Body Area Network. Advances in Medical Technologies and Clinical Practice Book Series, 2020, , 88-101.	0.3	0
387	A Review of an Energy-Efficient Routing Algorithm for Wireless Body Area Networks Using Machine Learning. Lecture Notes in Bioengineering, 2021, , 545-554.	0.3	0
388	Design and Implementation of Routing Algorithm to Enhance Network Lifetime in WBAN. Wireless Personal Communications, 2021, 118, 961-998.	1.8	12
389	PBCR: Parameter-based Backoff Counter Regulation in IEEE 802.15.6 CSMA/CA. , 2021, , .		6
390	Nanosensor and Actuator Technologies for Wearable Mobile Patient Monitoring Systems: A Review. Springer Proceedings in Mathematics and Statistics, 2021, , 83-95.	0.1	0
391	Priority-Based Dedicated Slot Allocation With Dynamic Superframe Structure in IEEE 802.15.6-Based Wireless Body Area Networks. IEEE Internet of Things Journal, 2022, 9, 4497-4506.	5.5	13
392	The Internet of Bodies: A Systematic Survey on Propagation Characterization and Channel Modeling. IEEE Internet of Things Journal, 2022, 9, 321-345.	5.5	36
393	Efficient Resource Scheduling for Interference Alleviation in Dynamic Coexisting WBANs. IEEE Transactions on Mobile Computing, 2021, , 1-1.	3.9	6
394	Long-Term Energy Consumption and Transmission Delay Tradeoff in Wireless-Powered Body Area Networks. IEEE Internet of Things Journal, 2022, 9, 4051-4064.	5.5	2
395	Ant Lion Optimizer Based Clustering Algorithm for Wireless Body Area Networks in Livestock Industry. IEEE Access, 2021, 9, 114495-114513.	2.6	15
396	A Dominating Set-Based Sleep Scheduling in Energy Harvesting WBANs. IEEE Transactions on Vehicular Technology, 2021, 70, 11923-11934.	3.9	12
397	The Proficient Nano Remote Sensor Network Using Energy Preserving Routing Strategy. , 2021, , .		0
398	DeepBAN: A Temporal Convolution-Based Communication Framework for Dynamic WBANs. IEEE Transactions on Communications, 2021, 69, 6675-6690.	4.9	91
399	Energy Efficiency Solutions for IEEE 802.15.6 Based Wireless Body Sensor Networks. Wireless Personal Communications, 2021, 119, 1499.	1.8	8
400	Improving network efficiency in wireless body area networks using dual forwarder selection technique. Personal and Ubiquitous Computing, 2022, 26, 11-24.	1.9	11
401	High Security Ubiquitous H-IoT Monitoring System based on a WBAN. , 2021, , .		3
402	Analyzing the Performance of WBAN Links during Physical Activity Using Real Multi-Band Sensor Nodes. Applied Sciences (Switzerland), 2021, 11, 2920.	1.3	5

#	ARTICLE	IF	CITATIONS
403	Implementation of a ZigBee Based Network for WBAN. , 2021, , .		1
404	Toward an Advanced Human Monitoring System Based on a Smart Body Area Network for Industry Use. Electronics (Switzerland), 2021, 10, 688.	1.8	8
406	An approach to detect human body movement using different channel models and machine learning techniques. Journal of Ambient Intelligence and Humanized Computing, 2022, 13, 3973-3987.	3.3	1
407	Relay-based Communications in WBANs. ACM Computing Surveys, 2022, 54, 1-34.	16.1	9
408	LAKA: Lightweight Authentication and Key Agreement Protocol for Internet of Things Based Wireless Body Area Network. Wireless Personal Communications, 2022, 127, 1067-1084.	1.8	52
409	A survey on wireless body area networks: architecture, security challenges and research opportunities. Computers and Security, 2021, 104, 102211.	4.0	71
410	LeHE-MRP: leveraging health monitoring by enhancing throughput of multi-hop routing protocol in WBANs. Journal of Medical Engineering and Technology, 2021, 45, 417-422.	0.8	1
411	A dynamic allocation scheme of scheduled slots for real-time heterogeneous traffic in IEEE 802.15.6 standard for scheduled access mechanism. Journal of Ambient Intelligence and Humanized Computing, 0, , 1.	3.3	3
412	Wearable Body Sensor Networks: State-of-the-Art and Research Directions. IEEE Sensors Journal, 2021, 21, 12511-12522.	2.4	38
413	Resource Scheduling Based on Priority Ladders for Multiple Performance Requirements in Wireless Body Area Networks. IEEE Transactions on Vehicular Technology, 2021, 70, 7027-7036.	3.9	10
414	ERQTM: Energy-Efficient Routing and QoS-Supported Traffic Management Scheme for SDWBANs. IEEE Sensors Journal, 2021, 21, 16328-16339.	2.4	15
415	BNS: A Framework for Wireless Body Area Network Realistic Simulations. Sensors, 2021, 21, 5504.	2.1	5
416	Influence of spatial distribution of base-stations on off-body path loss statistics for wireless body area network applications. Wireless Networks, 2021, 27, 4759-4772.	2.0	4
418	A Framework for the Applications of Sensors in Healthcare Engineering. , 2021, , .		0
419	Energy-Efficient Time-Sharing Multichannel MAC Protocol for Wireless Body Area Networks. Arabian Journal for Science and Engineering, 2022, 47, 1791-1804.	1.7	4
420	REO: A Reliable and Energy Efficient Optimization Algorithm for Beacon-Enabled 802.15.4-Based Wireless Body Area Networks. IEEE Sensors Journal, 2021, 21, 19623-19630.	2.4	11
421	An overview on low energy wake-up radio technology: Active and passive circuits associated with MAC and routing protocols. Journal of Network and Computer Applications, 2021, 190, 103140.	5.8	13
422	PAASH: A privacy-preserving authentication and fine-grained access control of outsourced data for secure smart health in smart cities. Journal of Parallel and Distributed Computing, 2021, 155, 101-119.	2.7	19



#	ARTICLE	IF	CITATIONS
423	A Multistage Blockchain-Based Secure and Trustworthy Smart Healthcare System Using ECG Characteristic. IEEE Internet of Things Magazine, 2021, 4, 48-58.	2.0	10
424	Wireless technologies, medical applications and future challenges in WBAN: a survey. Wireless Networks, 2021, 27, 5271-5295.	2.0	44
425	Enabling Green Mobile-Edge Computing for 5G-Based Healthcare Applications. IEEE Transactions on Green Communications and Networking, 2021, 5, 1623-1631.	3.5	40
426	Introduction to Body Centric Wireless Communication. Lecture Notes in Electrical Engineering, 2021, , 1-18.	0.3	0
427	Indoor Off-Body and Body-to-Body Communication: UWB and mmW Technologies. Lecture Notes in Electrical Engineering, 2021, , 61-98.	0.3	0
428	Driver Status Monitoring System with Body Channel Communication Technique Using Conductive Thread Electrodes. IEICE Transactions on Communications, 2022, E105.B, 318-325.	0.4	1
429	Wearable Planar Magnetoinductive Waveguide: A Low-Loss Approach to WBANs. IEEE Transactions on Antennas and Propagation, 2021, 69, 7278-7289.	3.1	11
430	Optimal Design of Joint Protomatrix for DP-LDPC Codes-Based JSCC System Over on-Body Channel. IEEE Access, 2021, 9, 33091-33101.	2.6	4
431	A Survey of Physical-Layer Authentication in Wireless Communications. IEEE Communications Surveys and Tutorials, 2021, 23, 282-310.	24.8	104
432	Bending Analysis of Polymer-Based Flexible Antennas for Wearable, General IoT Applications: A Review. Polymers, 2021, 13, 357.	2.0	54
433	Health Care in the Cyberspace: Medical Cyber-Physical System and Digital Twin Challenges. Internet of Things, 2020, , 79-92.	1.3	51
434	Security and Privacy Issues in Wireless Sensor and Body Area Networks. , 2020, , 173-200.		9
436	I-RP: Interference Aware Routing Protocol for WBAN. Lecture Notes in Computer Science, 2018, , 63-71.	1.0	8
437	Performance Evaluation of IEEE 802.15.6 MAC with User Priorities for Medical Applications. Lecture Notes in Electrical Engineering, 2015, , 23-30.	0.3	7
438	Reuse of data from smart medical devices for quality control and evidence-based medicine. , 2016, , 255-297.		1
439	Lightweight and Certificateless Multi-Receiver Secure Data Transmission Protocol for Wireless Body Area Networks. IEEE Transactions on Dependable and Secure Computing, 2022, 19, 1464-1475.	3.7	21
440	MAC Protocol in Wireless Body Area Network for Mobile Health: A Survey and an Architecture Design. International Journal of Distributed Sensor Networks, 2015, 2015, 1-9.	1.3	9
441	A Survey on Energy Harvesting and Integrated Data Sharing in Wireless Body Area Networks. International Journal of Distributed Sensor Networks, 2015, 2015, 1-17.	1.3	15

#	ARTICLE	IF	CITATIONS
442	Revisiting Routing in Wireless Body Area Networks. , 2016, , 89-116.		3
443	A study on MAC protocol for urgent data transmission in Wireless Bio Signal Monitoring Environment. , 2015, , .		2
444	Delay Reduced MAC Protocol for Bio Signal Monitoring in the WBSN Environment. , 2015, , .		5
445	Overview of four emerging mechanisms for e-health communications. International Journal of Systems, Control and Communications, 2016, 7, 337.	0.2	2
446	Erection of Comprehensive Wellness Programme for Global Healthcare Monitoring System using AODV Protocol with Data Clustering Schema. Indian Journal of Science and Technology, 2015, 8, .	0.5	2
447	SMART EQUIPMENT DESIGN CHALLENGES FOR REAL TIME FEEDBACK SUPPORT IN SPORT. Facta Universitatis, Series: Mechanical Engineering, 2018, 16, 389.	2.3	11
448	A Study on SmartBAN Physical Layer Applying Multi-Level PSK Modulation. , 2020, , .		1
449	The Effects of Transmission Power and Modulation Schemes on the Performance of WBANs in on-Body Medical Applications. Advances in Science, Technology and Engineering Systems, 2020, 5, 783-794.	0.4	2
450	Impact of on-body channel models on positioning success rate with UWB Wireless Body Area Networks. , 2015, , .		1
451	Simulating IEEE 802.15.6 based Wireless Body Area Network Interference using NS2 Platform for Indian Scenario. International Research Journal on Advanced Science Hub, 2020, 2, 1-11.	0.2	1
452	Energy-Efficient IoT e-Health Using Artificial Intelligence Model with Homomorphic Secret Sharing. Energies, 2021, 14, 6414.	1.6	19
453	Energy Savings via Harnessing Partial Packets in Body Area Networks. , 2014, , .		2
454	Performance Evaluation of IEEE 802.15.6 MAC with User Priorities for Medical Applications. Lecture Notes in Electrical Engineering, 2015, , 233-240.	0.3	2
455	A MAC Protocol for Medical Emergency Monitoring of Wireless Body Area Networks. Lecture Notes in Electrical Engineering, 2016, , 27-33.	0.3	1
456	Analytical Approach for Big Data in the Internet of Things. , 2016, , 49-61.		0
457	Wireless Networks. , 2017, , 35-60.		0
458	Cooperative Design of Two Level Fuzzy Logic Controllers for Medium Access Control in Wireless Body Area Networks. Lecture Notes in Computer Science, 2017, , 870-882.	1.0	0
459	Designing 2-Hop Interference Aware Energy Efficient Routing (HIER) Protocol for Wireless Body Area Networks. Lecture Notes in Computer Science, 2017, , 262-283.	1.0	3

#	ARTICLE	IF	CITATIONS
460	Testing and Deployment of Routing Protocols of BAN based on Their Power Consumption. International Journal of Advanced Research in Computer Science and Software Engineering, 2017, 7, 480-487.	0.1	0
462	A STUDY ON INTERFERENCE BETWEEN INDUSTRIAL AND ASSISTIVE BODY AREA WIRELESS NETWORKS. , 0, , .		0
463	Ubiquitous Wearable Healthcare Monitoring System Architectural Design for Prevention, Detection, and Monitoring of Chronic Diseases. Advances in Medical Diagnosis, Treatment, and Care, 2019, , 190-218.	0.1	0
464	Molecular Communication for Wireless Body Area Networks. , 2019, , 1-5.		2
465	Optical extra-body communication using smartphone cameras for human vital sign transmission. Applied Optics, 2019, 58, 3995.	0.9	5
466	QoS Analysis Of Kinematic Effects For Bluetooth HC-05 And NRF24L01 Communication Modules On WBAN System. Kinetik, 0, , 187-196.	0.1	3
468	A New Traffic Priority Aware and Energy Efficient Protocol for WBANs. Lecture Notes in Electrical Engineering, 2020, , 1429-1437.	0.3	0
469	Proposal for Pervasive Elderly Care. Advances in Healthcare Information Systems and Administration Book Series, 2020, , 54-66.	0.2	0
471	Mobile Communications and Computing: A Broad Review with a Focus on Smart Healthcare. Intelligent Systems Reference Library, 2020, , 9-33.	1.0	2
472	Pragmatic authenticated key agreement for IEEE Std 802.15.6. International Journal of Information Security, 2022, 21, 577-595.	2.3	2
474	Performance Evaluation of Wireless real-time Communication in Mobile Wearable Applications. , 2020, , .		0
475	Temperature-Aware Routing Using Secondary Sink in Wireless Body Area Sensor Network. , 2020, , 1350-1371.		0
476	Molecular Communication for Wireless Body Area Networks. , 2020, , 921-925.		1
477	BOSS: Bargaining-Based Optimal Slot Sharing in IEEE 802.15.6-Based Wireless Body Area Networks. IEEE Internet of Things Journal, 2023, 10, 2945-2953.	5.5	9
478	Design Considerations for a Sub-mW Receiver Front-End for Internet-of-Things. IEEE Open Journal of the Solid-State Circuits Society, 2021, 1, 37-52.	2.0	4
479	A Critical Study on Internet of Medical Things for Secure WBAN. Advances in Computer and Electrical Engineering Book Series, 2020, , 179-197.	0.2	2
482	Performance of an Accelerometer-Based Wireless Body Area Network in Indoor Environment: A Preliminary Study. , 0, , .		0
483	A Study on Lifetime Enhancement and Reliability in Wearable Wireless Body Area Networks. , 2020, , 971-984.		2

#	ARTICLE	IF	CITATIONS
484	A Leg Phantom Model Based on the Visible Human Data for Intra-Body Communication. IEEE Journal of Electromagnetics, RF and Microwaves in Medicine and Biology, 2021, 5, 313-321.	2.3	5
485	Markov-Based Transmission Power Control in Wireless Body Area Network. , 2020, , .		1
486	A Review of MAC Layer for Wireless Body Area Network. Journal of Medical and Biological Engineering, 2021, 41, 767-804.	1.0	8
487	Body Node Coordinator Placement Algorithm for WBAN Using Multi-Objective Swarm Optimization. IEEE Sensors Journal, 2022, 22, 2858-2867.	2.4	16
488	MEC-Based Jamming-Aided Anti-Eavesdropping with Deep Reinforcement Learning for WBANs. ACM Transactions on Internet Technology, 2022, 22, 1-17.	3.0	3
489	Practical Distributed Reception for Wireless Body Area Networks Using Supervised Learning. IEEE Transactions on Wireless Communications, 2022, 21, 4898-4908.	6.1	1
490	An overview of the Survey/Review Studies in Wireless Body Area Network. , 2020, , .		7
491	Motion Sensing for Wireless Body Area Networks Based on Android Using Wi-Fi Direct Transmission. , 2020, , .		0
492	The QoS and Energy Consumption Efficiency Trade-off Model Based on Utility Function in WBAN. , 2021, , .		1
493	Energy Efficiency and Reliability Considerations in Wireless Body Area Networks: A Survey. Computational and Mathematical Methods in Medicine, 2022, 2022, 1-15.	0.7	22
494	Traffic Priority-Aware Medical Data Dissemination Scheme for IoT Based WBASN Healthcare Applications. Computers, Materials and Continua, 2022, 71, 4443-4456.	1.5	15
495	Analysis Method of Bending Effect on Transmission Characteristics of Ultra-Low-Profile Rectangular Microstrip Antenna. Sensors, 2022, 22, 602.	2.1	5
496	A miniaturised Ka/V dual band millimeter wave antenna for 5G body centric network applications. AEJ - Alexandria Engineering Journal, 2022, 61, 8089-8096.	3.4	15
497	Lattice-Based Proxy-Oriented Public Auditing Scheme for Electronic Health Record in Cloud-Assisted WBANs. IEEE Systems Journal, 2022, 16, 2968-2978.	2.9	7
498	Scheduled Access Strategy for Improving Sensor Node Battery Life Time and Delay Analysis of Wireless Body Area Network. IEEE Access, 2022, 10, 3459-3468.	2.6	8
499	Joint Code Rate Compatible Design of DP-LDPC Code Pairs for Joint Source Channel Coding Over Implant-to-External Channel. IEEE Transactions on Wireless Communications, 2022, 21, 5526-5540.	6.1	9
500	Hybrid multi-objective-optimization algorithm for energy efficient priority-based QoS routing in IoT networks. Wireless Networks, 0, , 1.	2.0	5
501	Security and Privacy Threats for Bluetooth Low Energy in IoT and Wearable Devices: A Comprehensive Survey. IEEE Open Journal of the Communications Society, 2022, 3, 251-281.	4.4	40

#	ARTICLE	IF	CITATIONS
502	A Personalized Eccentric Cyber-Physical System Architecture for Smart Healthcare. Security and Communication Networks, 2021, 2021, 1-36.	1.0	10
503	An Energy-Efficient Optical Wireless OFDMA Scheme for Medical Body-Area Networks. IEEE Transactions on Green Communications and Networking, 2022, 6, 1806-1818.	3.5	4
505	Toward Dependable Internet of Medical Things: IEEE 802.15.6 Ultra-Wideband Physical Layer Utilizing Superorthogonal Convolutional Code. Sensors, 2022, 22, 2172.	2.1	1
506	Reliable routing in Wireless Body Area Network using optimum number of relay nodes for enhancing network lifetime. Journal of Ambient Intelligence and Smart Environments, 2022, 14, 135-153.	0.8	3
507	Approaches for Processing and Storing Data from Wearable Medical Devices in Health Monitoring Systems. , 2021, , .		1
508	Energy Efficient Capacitive Body Channel Access Schemes for Internet of Bodies. , 2021, , .		6
509	PEDTARA: Priority-Based Energy Efficient, Delay and Temperature Aware Routing Algorithm Using Multi-Objective Genetic Chaotic Spider Monkey Optimization for Critical Data Transmission in WBANs. Electronics (Switzerland), 2022, 11, 68.	1.8	5
510	A Novel of Survey: In Healthcare System for Wireless Body-Area Network. Lecture Notes in Mechanical Engineering, 2022, , 591-609.	0.3	2
511	SIMPLE-DRR: A New Energy-Efficient Multi-hop Routing Protocol in WBANs for Health Monitoring. Lecture Notes in Electrical Engineering, 2022, , 29-39.	0.3	2
512	Proposal for Pervasive Elderly Care. , 2022, , 1087-1099.		0
513	Technological Requirements and Challenges in Wireless Body Area Networks for Health Monitoring: A Comprehensive Survey. Sensors, 2022, 22, 3539.	2.1	15
514	Thermographic Investigation of Frequency-Reconfigurable Wearable Antennas. , 2022, , .		2
515	Filtering Trans-Impedance Amplifiers: from mW of Power to GHz of Bandwidth. , 2022, , .		2
516	Designing a Common DP-LDPC Code Pair for Variable On-Body Channels. IEEE Transactions on Wireless Communications, 2022, 21, 9596-9609.	6.1	6
517	EB-FV-MADM: energy budget based VIKOR MADM approach realizing IEEE 802.15.6 WBAN standards in fuzzy environment. Journal of Ambient Intelligence and Humanized Computing, 2024, 15, 275-289.	3.3	0
518	Intra WBAN routing using Zipf's law and intelligent transmission power switching approach (ZITA). Journal of Ambient Intelligence and Humanized Computing, 2022, 13, 4135-4149.	3.3	2
519	A secure and lightweight anonymous mutual authentication scheme for wearable devices in Medical Internet of Things. Journal of Information Security and Applications, 2022, 68, 103259.	1.8	5
520	A survey on analytical models for dynamic resource management in wireless body area networks. Ad Hoc Networks, 2022, 135, 102936.	3.4	3

#	ARTICLE	IF	CITATIONS
521	A Method for Underwater Acoustic Key Detection Based on OFDM Pilot Sequences. IEEE Access, 2022, 10, 80485-80494.	2.6	0
522	Ultrasonic vs. Magnetic Resonance Communication for Mixed Wearable and Implanted Devices. , 2022, , .		0
523	A Chaotic Compressive Sensing Based Data Transmission Method for Sensors within BBNs. Sensors, 2022, 22, 5909.	2.1	1
524	FEELS: fuzzy based energy efficient and low SAR routing protocol for wireless body area networks. Wireless Networks, 2022, 28, 3593-3611.	2.0	6
525	A Multiband Microwave Photonic Filter Based on a Strongly Coupled Microring Resonator with Adjustable Bandwidth. SSRN Electronic Journal, 0, , .	0.4	0
526	Wearable UWB Technology for Daily Physical Activity Tracking, Detection, and Classification. IEEE Sensors Journal, 2022, 22, 20684-20694.	2.4	5
527	A scholastic study of energy-efficient routing protocol for body area network in IoT ecosystem. AIP Conference Proceedings, 2022, , .	0.3	0
528	Transmit Beamforming for Ambient Backscatter Communication Enabled Wireless Body Area Network in Multiuser MISO System. IEEE Transactions on Cognitive Communications and Networking, 2022, 8, 1839-1847.	4.9	1
529	Design of Wireless Motion Sensor Nodes Based on Kalman Filter Algorithm. Recent Advances in Electrical and Electronic Engineering, 2022, 15, .	0.2	0
530	New directions for security attacks, privacy, and malware detection in WBAN. Evolutionary Intelligence, 2023, 16, 1917-1934.	2.3	4
531	A Hybrid Marine Predator Algorithm for Thermal-aware Routing Scheme in Wireless Body Area Networks. Journal of Bionic Engineering, 2023, 20, 81-104.	2.7	8
532	Fuzzy-MAC: An FIS based MAC protocol for a multi-constrained traffic in wireless body area networks. Computer Communications, 2022, 195, 451-462.	3.1	6
533	Notification Based Multichannel MAC (NM-MAC) Protocol for Wireless Body Area Network. , 2022, , 124-133.		0
534	Adaptive Time-Varying Routing for Energy Saving and Load Balancing in Wireless Body Area Networks. IEEE Transactions on Mobile Computing, 2024, 23, 90-101.	3.9	2
535	A Comprehensive Study on Next-Generation Electromagnetics Devices and Techniques for Internet of Everything (IoE). Electronics (Switzerland), 2022, 11, 3341.	1.8	7
536	A Survey on Wireless Wearable Body Area Networks: A Perspective of Technology and Economy. Sensors, 2022, 22, 7722.	2.1	15
537	An Adaptive TDMA Approach for Improving Reliability and Performance in WBAN under Heterogeneous Traffic and Interference. , 2022, , .		0
538	Mitigate Inter-WBAN Interference in Body-to-Body Network to Restrain Epidemic Spread. SN Computer Science, 2023, 4, .	2.3	1

#	ARTICLE	IF	CITATIONS
539	Self-adaptive reconstruction for compressed sensing based ECG acquisition in wireless body area network. <i>Future Generation Computer Systems</i> , 2023, 142, 228-236.	4.9	4
540	A Study on Power Control Algorithms for Wireless Body Area Networks. , 2022, , .		1
541	Different Dielectric Material used for Flexible Antenna: A Review. , 2022, , .		0
542	Development of Wireless Control Technique for Photodynamic Therapy In-Vivo Deep Tissue. <i>The Journal of Korean Institute of Information Technology</i> , 2023, 21, 69-78.	0.1	0
543	A study on the channel bonding in IoT networks: Requirements, applications, and challenges. <i>International Journal of Communication Systems</i> , 2023, 36, .	1.6	1
544	Intra-body communications for nervous system applications: Current technologies and future directions. <i>Computer Networks</i> , 2023, 227, 109718.	3.2	1
545	A Multiband Microwave Photonic Filter Based on a Strongly Coupled Microring Resonator With Adjustable Bandwidth. <i>IEEE Photonics Journal</i> , 2023, 15, 1-6.	1.0	5
546	Wireless Body Area Network (WBAN) Applications Necessity in Real Time Healthcare. , 2022, , .		5
547	Optimal relaying nodes selection for IEEE 802.15.6-based two-hop star topology WBAN. <i>Internet of Things (Netherlands)</i> , 2023, 22, 100740.	4.9	1
548	A Survey of Wearable Devices Pairing Based on Biometric Signals. <i>IEEE Access</i> , 2023, 11, 26070-26085.	2.6	3
555	An Area-Efficient SM2 Cryptographic Engine for WBAN Security Enhancement. , 2023, , .		0
556	Impact of Node Radiation on Human Health Using IoMT. <i>Lecture Notes in Electrical Engineering</i> , 2023, , 549-564.	0.3	0
565	Energy Efficient MAC Framework Under Temporal Fading in WBAN. , 2022, , .		0
568	Energy Efficient Data Transmission in Wireless Body Area Network (WBAN). <i>Advances in Intelligent Systems and Computing</i> , 2023, , 78-87.	0.5	0
570	Discussion on Networking Requirements and Testing Methods of Remote Laparoscopy Surgery Robots. , 2023, , .		0
571	A method for Orthopedic Robot Remote Operation Performance. , 2023, , .		0
573	Route Optimizations Using Genetic Algorithms for Wireless Body Area Networks. <i>Lecture Notes in Networks and Systems</i> , 2024, , 25-32.	0.5	0