Wendi Rabiner Heinzelman

List of Publications by Year
in descending order

138 papers	15,484 citations	236612 25 h-index	143772 57 g-index
141 all docs	141 docs citations	141 times ranked	8064 citing authors

#	Article	IF	Citations
1	Multi-hop WiFi Direct Implementation via Efficient Communication Backbone Construction. , 2021, , .		0
2	Computational Offloading for Energy Constrained Devices in Multi-Hop Cooperative Networks. IEEE Transactions on Mobile Computing, 2020, 19, 60-73.	3.9	18
3	LoRa vs. WiFi Ad Hoc: A Performance Analysis and Comparison. , 2020, , .		14
4	Performance Evaluation of WiFi Direct Multi Hop Ad-Hoc Networks. , 2020, , .		3
5	Evaluating Methods for Enabling Continuous Operation in Dynamic WiFi Direct Networks. , 2020, , .		1
6	Infrastructure vs. Multi-Hop D2D Networks: Availability and Performance Analysis. , 2019, , .		1
7	Energy-Harvesting Wireless Sensor Networks (EH-WSNs). ACM Transactions on Sensor Networks, 2018, 14, 1-50.	2.3	247
8	Reducing Delay in Group Reformation in WiFi Direct Networks Through Redundancy. , 2018, , .		9
9	Unsupervised Learning Approach to Feature Analysis for Automatic Speech Emotion Recognition. , 2018, , .		36
10	JumboNet Elephant Tracking Using Delay-Tolerant Routing with Multiple Sinks. , 2018, , .		1
11	Water Quality Monitoring Using Wireless Sensor Networks. ACM Transactions on Sensor Networks, 2017, 13, 1-41.	2.3	178
12	Enabling multi-hop ad hoc networks through WiFi Direct multi-group networking. , 2017, , .		44
13	Enhanced multiclass SVM with thresholding fusion for speech-based emotion classification. International Journal of Speech Technology, 2017, 20, 27-41.	1.4	23
14	Reinforcement learning in MIMO wireless networks with energy harvesting. , 2017, , .		13
15	Maintaining Connectivity in Ad Hoc Networks Through WiFi Direct. , 2017, , .		14
16	Mobile to Mobile Computational Offloading in Multi-Hop Cooperative Networks. , 2016, , .		6
17	Design of a Kinetic Energy Harvester for Elephant Mounted Wireless Sensor Nodes of JumboNet. , 2016, , .		12
18	Developing Medical Condition Management Applications Using Manage My Condition. , 2016, , .		1

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19	Emotion classification: How does an automated system compare to Naive human coders?. , 2016, , .		7
20	Manage My Condition: A Standard Framework for the Development of Cloud-Based Medical Condition Management Applications. , 2016, , .		0
21	Low-Cost Wake-Up Receiver for RF Energy Harvesting Wireless Sensor Networks. IEEE Sensors Journal, 2016, 16, 6270-6278.	2.4	26
22	RF Energy Harvesting for Embedded Systems: A Survey of Tradeoffs and Methodology. IEEE Circuits and Systems Magazine, 2016, 16, 22-57.	2.6	191
23	Volunteer Computing on Mobile Devices. , 2016, , 2171-2198.		0
24	MH-REACH-Mote: Supporting multi-hop passive radio wake-up for wireless sensor networks. , 2015, , .		8
25	Transmitter-receiver energy efficiency: A trade-off in MIMO wireless sensor networks. , 2015, , .		6
26	RF energy harvester-based wake-up receiver. , 2015, , .		6
27	The Cloudlet Accelerator: Bringing Mobile-Cloud Face Recognition into Real-Time. , 2015, , .		23
28	Smart RF energy harvesting communications: challenges and opportunities. , 2015, 53, 70-78.		171
29	Cooperative Load Balancing and Dynamic Channel Allocation for Cluster-Based Mobile Ad Hoc Networks. IEEE Transactions on Mobile Computing, 2015, 14, 951-963.	3.9	45
30	REACH[2] -Mote. ACM Transactions on Sensor Networks, 2015, 11, 1-33.	2.3	17
31	Accelerating Mobile-Cloud Computing. , 2015, , 1933-1955.		2
32	Surviving wireless energy interference in RF-harvesting sensor networks: An empirical study. , 2014, , .		6
33	Energy harvesting framework for network simulator 3 (ns-3). , 2014, , .		19
34	Implementation of multi-path energy routing. , 2014, , .		13
35	BaNa: A Noise Resilient Fundamental Frequency Detection Algorithm for Speech and Music. IEEE/ACM Transactions on Audio Speech and Language Processing, 2014, 22, 1833-1848.	4.0	17
36	Experimental study of concurrent data and wireless energy transfer for sensor networks. , 2014, , .		42

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37	Extending volunteer computing through mobile ad hoc networking. , 2014, , .		24
38	Use of Network Latency Profiling and Redundancy for Cloud Server Selection. , 2014, , .		38
39	Token-MAC: A Fair MAC Protocol for Passive RFID Systems. IEEE Transactions on Mobile Computing, 2014, 13, 1352-1365.	3.9	7
40	Sleeping Techniques for Reducing Energy Dissipation. Signals and Communication Technology, 2014, , 163-197.	0.4	8
41	Passive wake-up radios: From devices to applications. Ad Hoc Networks, 2013, 11, 2605-2621.	3.4	31
42	Mobile computing - A green computing resource. , 2013, , .		35
43	Passive RFID-Based Wake-Up Radios for Wireless Sensor Networks. , 2013, , 113-129.		7
44	An adaptive sensor sleeping solution based on sleeping multipath routing and duty-cycled MAC protocols. ACM Transactions on Sensor Networks, 2013, 10, 1-30.	2.3	12
45	RFID range extension with low-power wireless edge devices. , 2013, , .		4
46	Supporting bursty traffic in wireless sensor networks through a distributed advertisement-based TDMA protocol (ATMA). Ad Hoc Networks, 2013, 11, 959-974.	3.4	18
47	Optimal Rate Allocation for Distributed Source Coding over Gaussian Multiple Access Channels. IEEE Transactions on Wireless Communications, 2013, 12, 2002-2013.	6.1	2
48	UPS: Universal Protocol Stack for emerging wireless networks. Ad Hoc Networks, 2013, 11, 687-700.	3.4	3
49	Range extension of passive wake-up radio systems through energy harvesting. , 2013, , .		33
50	Experimental demonstration of multi-hop RF energy transfer. , 2013, , .		30
51	Cross-layer energy optimization under image quality constraints for wireless image transmissions. , 2012, , 1000-1005.		2
52	A Motion-Tracking Ultrasonic Sensor Array for Behavioral Monitoring. IEEE Sensors Journal, 2012, 12, 707-712.	2.4	15
53	Time-Knocking: A novel addressing mechanism for wake-up receivers. , 2012, , .		8
54	BaNa: A hybrid approach for noise resilient pitch detection. , 2012, , .		9

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55	SOLARCAP: Super capacitor buffering of solar energy for self-sustainable field systems. , 2012, , .		24
56	Stateless Multicast Protocol for Ad Hoc Networks. IEEE Transactions on Mobile Computing, 2012, 11, 240-253.	3.9	17
57	Cloud-Vision: Real-time face recognition using a mobile-cloudlet-cloud acceleration architecture. , 2012, , .		335
58	Modeling and Performance Analysis for Duty-Cycled MAC Protocols with Applications to S-MAC and X-MAC. IEEE Transactions on Mobile Computing, 2012, 11, 905-921.	3.9	75
59	COMBAT: mobile-Cloud-based cOmpute/coMmunications infrastructure for BATtlefield applications. Proceedings of SPIE, 2012, , .	0.8	45
60	A dynamic channel allocation scheme using spectrum sensing for mobile ad hoc networks. , 2012, , .		5
61	Maximizing Gathered Samples in Wireless Sensor Networks with Slepian-Wolf Coding. IEEE Transactions on Wireless Communications, 2012, 11, 751-761.	6.1	8
62	Link energy minimization for wireless networks. Ad Hoc Networks, 2012, 10, 569-585.	3.4	11
63	Optimizing physical-layer parameters for wireless sensor networks. ACM Transactions on Sensor Networks, 2011, 7, 1-20.	2.3	64
64	Token-MAC: A Fair MAC Protocol for Passive RFID Systems. , 2011, , .		5
65	The impact of allostatic load on maternal sympathovagal functioning in stressful child contexts: Implications for problematic parenting. Development and Psychopathology, 2011, 23, 831-844.	1.4	49
66	Energy-Efficient Real-Time Multicast Routing in Mobile Ad Hoc Networks. IEEE Transactions on Computers, 2011, 60, 707-722.	2.4	27
67	Analytical performance of soft clustering protocols. Ad Hoc Networks, 2011, 9, 635-651.	3.4	11
68	ADV-MAC: Analysis and optimization of energy efficiency through data advertisements for wireless sensor networks. Ad Hoc Networks, 2011, 9, 876-892.	3.4	22
69	Motion Sensor and Camera Placement Design for In-Home Wireless Video Monitoring Systems. , 2011, , .		6
70	Exploring the Benefits of Symbiotic Routing. , 2011, , .		1
71	Maximizing Sample Rate for Distributed Source Coding over Multiple Access Channels. , 2011, , .		1
72	Sleeping Multipath Routing: A Trade-Off between Reliability and Lifetime in Wireless Sensor Networks. , 2011, , .		9

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73	Maximization of Data Gathering in Clustered Wireless Sensor Networks. , 2010, , .		6
74	Modeling and Throughput Analysis for X-MAC with a Finite Queue Capacity. , 2010, , .		10
75	Multicasting vs. Broadcasting: What Are the Trade-Offs?. , 2010, , .		4
76	ATMA: Advertisement-Based TDMA Protocol for Bursty Traffic in Wireless Sensor Networks. , 2010, , .		20
77	Maximizing the lifetime of clusters with Slepian-Wolf coding. , 2010, , .		3
78	Link Energy Minimization in IR-UWB Based Wireless Networks. IEEE Transactions on Wireless Communications, 2010, 9, 2800-2811.	6.1	18
79	Energy-Efficient Duty Cycle Assignment for Receiver-Based Convergecast in Wireless Sensor Networks. , 2010, , .		21
80	Simple wireless sensor networking solutions. IEEE Journal on Selected Areas in Communications, 2010, 28, 969-972.	9.7	2
81	Duty Cycle Control for Low-Power-Listening MAC Protocols. IEEE Transactions on Mobile Computing, 2010, 9, 1508-1521.	3.9	59
82	Feasibility and Benefits of Passive RFID Wake-Up Radios for Wireless Sensor Networks. , 2010, , .		29
83	Special Section on Distributed Camera Networks: Sensing, Processing, Communication, and Implementation. IEEE Transactions on Image Processing, 2010, 19, 2513-2515.	6.0	4
84	Schedule Adaptation of Low-Power-Listening Protocols for Wireless Sensor Networks. IEEE Transactions on Mobile Computing, 2010, 9, 672-685.	3.9	45
85	Information-sharing protocol architectures for sensor networks. Mobile Computing and Communications Review, 2010, 13, 26-38.	1.7	5
86	Supporting Proactive Application Event Notification to Improve Sensor Network Performance. Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering, 2010, , 3-18.	0.2	0
87	Deployment of a Wireless Ultrasonic Sensor Array for Psychological Monitoring. Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering, 2010, , 56-67.	0.2	2
88	UPS: Unified Protocol Stack for wireless sensor networks. , 2009, , .		1
89	A Survey of Visual Sensor Networks. Advances in Multimedia, 2009, 2009, 1-21.	0.2	356
90	Improving QoS in Multicasting Through Adaptive Redundancy. , 2009, , .		2

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91	Optimal resource allocation for wireless video sensors with power-rate-distortion model of imager. , 2009, , .		1
92	RBMulticast: Receiver Based Multicast for Wireless Sensor Networks. , 2009, , .		15
93	Cluster head election techniques for coverage preservation in wireless sensor networks. Ad Hoc Networks, 2009, 7, 955-972.	3.4	229
94	Adaptation of TDMA Parameters Based on Network Conditions. , 2009, , .		7
95	Modeling and throughput analysis for SMAC with a finite queue capacity. , 2009, , .		18
96	An Integrated Approach to Sensor Role Selection. IEEE Transactions on Mobile Computing, 2009, 8, 709-720.	3.9	15
97	ADV-MAC: Advertisement-Based MAC Protocol for Wireless Sensor Networks. , 2009, , .		21
98	ADV-MAC: Advertisement-based MAC Protocol for wireless sensor networks. , 2009, , .		1
99	A Better Choice for Sensor Sleeping. Lecture Notes in Computer Science, 2009, , 134-149.	1.0	7
100	Discovering long lifetime routes in mobile ad hoc networks. Ad Hoc Networks, 2008, 6, 661-674.	3.4	24
101	General Network Lifetime and Cost Models for Evaluating Sensor Network Deployment Strategies. IEEE Transactions on Mobile Computing, 2008, 7, 484-497.	3.9	218
102	Minimization of transceiver energy consumption in wireless sensor networks with AWGN channels. , 2008, , .		26
103	Improving QoS under lossy channels through adaptive redundancy. , 2008, , .		1
104	Node synchronization for minimizing delay and energy consumption in low-power-listening MAC protocols. , 2008, , .		7
105	Sensor selection cost function to increase network lifetime with QoS support. , 2008, , .		1
106	Duty cycle control for low-power-listening MAC protocols. , 2008, , .		15
107	Lifetime-Distortion Trade-off in Image Sensor Networks. , 2007, , .		7
108	QoS and energy efficiency in network wide broadcasting: A MAC layer perspective. Computer Communications, 2007, 30, 3705-3720.	3.1	7

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109	Searching strategies for target discovery in wireless networks. Ad Hoc Networks, 2007, 5, 413-428.	3.4	8
110	A Survey of Routing Protocols that Support QoS in Mobile Ad Hoc Networks. IEEE Network, 2007, 21, 30-38.	4.9	126
111	Camera selection in visual sensor networks. , 2007, , .		43
112	Multi-rate Support for Network-Wide Broadcasting in MANETs. Lecture Notes in Computer Science, 2007, , 1140-1144.	1.0	1
113	A first look at a cross-layer facilitating architecture for wireless sensor networks. , 2006, , .		4
114	Energy and Spatial Reuse Efficient Network-Wide Real-Time Data Broadcasting in Mobile Ad Hoc Networks. IEEE Transactions on Mobile Computing, 2006, 5, 1297-1312.	3.9	18
115	Experimental investigation of radio performance in wireless sensor networks. , 2006, , .		62
116	Local Image Registration by Adaptive Filtering. IEEE Transactions on Image Processing, 2006, 15, 3053-3065.	6.0	26
117	Storage Management in Wireless Sensor Networks. , 2006, , 257-281.		5
118	Energy efficiency and error resilience in coordinated and non-coordinated medium access control protocols. Computer Communications, 2006, 29, 3493-3506.	3.1	7
119	Multi-View Image Registration for Wide-Baseline Visual Sensor Networks. , 2006, , .		0
120	Local image registration: an adaptive filtering framework. , 2005, , .		2
121	Balanced-energy sleep scheduling scheme for high-density cluster-based sensor networks. Computer Communications, 2005, 28, 1631-1642.	3.1	105
122	Flooding Strategy for Target Discovery in Wireless Networks. Wireless Networks, 2005, 11, 607-618.	2.0	24
123	Scheduling Sleeping Nodes in High Density Cluster-based Sensor Networks. Mobile Networks and Applications, 2005, 10, 825-835.	2.2	128
124	QoS-aware routing based on bandwidth estimation for mobile ad hoc networks. IEEE Journal on Selected Areas in Communications, 2005, 23, 561-572.	9.7	349
125	Exploring long lifetime routing (LLR) in ad hoc networks. , 2004, , .		34
126	MH-TRACE: Multihop Time Reservation Using Adaptive Control for Energy Efficiency. IEEE Journal on Selected Areas in Communications, 2004, 22, 942-953.	9.7	62

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127	Sensor management policies to provide application QoS. Ad Hoc Networks, 2003, 1, 235-246.	3.4	22
128	Trace: time reservation using adaptive control for energy efficiency. IEEE Journal on Selected Areas in Communications, 2003, 21, 1506-1515.	9.7	23
129	Flooding strategy for target discovery in wireless networks. , 2003, , .		46
130	Performance evaluation of superreconstruction from video. , 2003, , .		1
131	Infrastructure tradeoffs for sensor networks. , 2002, , .		182
132	An application-specific protocol architecture for wireless microsensor networks. IEEE Transactions on Wireless Communications, 2002, 1, 660-670.	6.1	8,330
133	Negotiation-Based Protocols for Disseminating Information in Wireless Sensor Networks. Wireless Networks, 2002, 8, 169-185.	2.0	795
134	Energy-Scalable Protocols for Battery-Operated MicroSensor Networks. Journal of Signal Processing Systems, 2001, 29, 223-237.	1.0	110
135	Adaptive protocols for information dissemination in wireless sensor networks. , 1999, , .		1,516
136	Accelerating Mobile-Cloud Computing. Advances in Systems Analysis, Software Engineering, and High Performance Computing Book Series, 0, , 175-197.	0.5	14
137	Volunteer Computing on Mobile Devices. Advances in Wireless Technologies and Telecommunication Book Series, 0, , 153-181.	0.3	11
138	Energy Efficient Real-Time Distributed Communication Architectures for Military Tactical Communication Systems. Advances in Wireless Technologies and Telecommunication Book Series, 0, , 35-82.	0.3	1