Mehmet Can Vuran

List of Publications by Year
in descending order

98 papers	12,116 citations	201674 27 h-index	302126 39 g-index
112 all docs	112 docs citations	112 times ranked	7080 citing authors

#	Article	IF	Citations
1	NeXt generation/dynamic spectrum access/cognitive radio wireless networks: A survey. Computer Networks, 2006, 50, 2127-2159.	5.1	5,385
2	A survey on spectrum management in cognitive radio networks. , 2008, 46, 40-48.		1,320
3	Spatio-temporal correlation: theory and applications for wireless sensor networks. Computer Networks, 2004, 45, 245-259.	5.1	574
4	Spatial correlation-based collaborative medium access control in wireless sensor networks. IEEE/ACM Transactions on Networking, 2006, 14, 316-329.	3.8	308
5	Signal propagation techniques for wireless underground communication networks. Physical Communication, 2009, 2, 167-183.	2.1	277
6	BorderSense: Border patrol through advanced wireless sensor networks. Ad Hoc Networks, 2011, 9, 468-477.	5.5	258
7	MISE-PIPE: Magnetic induction-based wireless sensor networks for underground pipeline monitoring. Ad Hoc Networks, 2011, 9, 218-227.	5.5	208
8	Internet of underground things in precision agriculture: Architecture and technology aspects. Ad Hoc Networks, 2018, 81, 160-173.	5.5	202
9	Autonomous precision agriculture through integration of wireless underground sensor networks with center pivot irrigation systems. Ad Hoc Networks, 2013, 11, 1975-1987.	5.5	195
10	Channel model and analysis for wireless underground sensor networks in soil medium. Physical Communication, 2010, 3, 245-254.	2.1	161
11	Error Control in Wireless Sensor Networks: A Cross Layer Analysis. IEEE/ACM Transactions on Networking, 2009, 17, 1186-1199.	3.8	158
12	Semi-supervised near-miss fall detection for ironworkers with a wearable inertial measurement unit. Automation in Construction, 2016, 68, 194-202.	9.8	137
13	XLP: A Cross-Layer Protocol for Efficient Communication in Wireless Sensor Networks. IEEE Transactions on Mobile Computing, 2010, 9, 1578-1591.	5.8	135
14	Cross-Layer Analysis of the End-to-End Delay Distribution in Wireless Sensor Networks. IEEE/ACM Transactions on Networking, 2012, 20, 305-318.	3.8	128
15	A Cross-Layer Protocol for Wireless Sensor Networks. , 2006, , .		114
16	Collective sensing of workers' gait patterns to identify fall hazards in construction. Automation in Construction, 2017, 82, 166-178.	9.8	98
17	Di-Sense: In situ real-time permittivity estimation and soil moisture sensing using wireless underground communications. Computer Networks, 2019, 151, 31-41.	5.1	83
18	Spatio-Temporal Event Model for Cyber-Physical Systems. , 2009, , .		82

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19	Development of a Testbed for Wireless Underground Sensor Networks. Eurasip Journal on Wireless Communications and Networking, 2010, 2010, .	2.4	73
20	Communication with Aboveground Devices in Wireless Underground Sensor Networks: An Empirical Study. , 2010, , .		73
21	Empirical Evaluation of Wireless Underground-to-Underground Communication in Wireless Underground Sensor Networks. Lecture Notes in Computer Science, 2009, , 231-244.	1.3	71
22	A Theoretical Model of Underground Dipole Antennas for Communications in Internet of Underground Things. IEEE Transactions on Antennas and Propagation, 2019, 67, 3996-4009.	5.1	64
23	Cyber-physical systems in industrial process control. ACM SIGBED Review, 2008, 5, 1-2.	1.8	59
24	Cross-Layer Analysis of Error Control in Wireless Sensor Networks. , 2006, , .		51
25	Impacts of Soil Type and Moisture on the Capacity of Multi-Carrier Modulation in Internet of Underground Things. , 2016, , .		51
26	Cooperative Spectrum Sensing in Cognitive Radio Networks Using Multidimensional Correlations. IEEE Transactions on Wireless Communications, 2014, 13, 1832-1843.	9.2	48
27	Internet of underground things: Sensing and communications on the field for precision agriculture. , 2018, , .		47
28	Pulses in the sand: Impulse response analysis of wireless underground channel. , 2016, , .		44
29	Smart underground antenna arrays: A soil moisture adaptive beamforming approach. , 2017, , .		44
30	A concept lattice-based event model for Cyber-Physical Systems. , 2010, , .		42
31	On the cross-layer interactions between congestion and contention in wireless sensor and actor networks. Ad Hoc Networks, 2007, 5, 897-909.	5.5	40
32	Sensing through the continent. , 2012, , .		40
33	On network connectivity of wireless sensor networks for sandstorm monitoring. Computer Networks, 2011, 55, 1150-1157.	5.1	38
34	(CPS)^2. , 2010, , .		38
35	Vehicle-to-barrier communication during real-world vehicle crash tests. Computer Communications, 2018, 127, 172-186.	5.1	37
36	Spatio-temporal Characteristics of Point and Field Sources in Wireless Sensor Networks. , 2006, , .		36

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37	Wireless underground channel diversity reception with multiple antennas for internet of underground things. , 2017, , .		36
38	Towards Internet of Underground Things in smart lighting: A statistical model of wireless underground channel. , 2017, , .		36
39	EM-Based Wireless Underground Sensor Networks. , 2018, , 247-285.		33
40	A Reliable Energy-Efficient Multi-Level Routing Algorithm for Wireless Sensor Networks Using Fuzzy Petri Nets. Sensors, 2011, 11, 3381-3400.	3.8	29
41	Impacts of soil moisture on cognitive radio underground networks. , 2013, , .		29
42	Time-domain and Frequency-domain Reflectometry Type Soil Moisture Sensor Performance and Soil Temperature Effects in Fine- and Coarse-textured Soils. Applied Engineering in Agriculture, 2019, 35, 117-134.	0.7	29
43	Deep-Waveform: A Learned OFDM Receiver Based on Deep Complex-Valued Convolutional Networks. IEEE Journal on Selected Areas in Communications, 2021, 39, 2407-2420.	14.0	29
44	Stochastic Analysis of Energy Consumption in Wireless Sensor Networks. , 2010, , .		25
45	Spatio-temporal soil moisture measurement with wireless underground sensor networks. , 2010, , .		22
46	Analysis of event detection delay in wireless sensor networks. , 2011, , .		21
47	Environment aware connectivity for wireless underground sensor networks. , 2013, , .		21
48	A Statistical Impulse Response Model Based on Empirical Characterization of Wireless Underground Channels. IEEE Transactions on Wireless Communications, 2020, 19, 5966-5981.	9.2	21
49	Cross-Layer Analysis of the End-to-End Delay Distribution in Wireless Sensor Networks. , 2009, , .		20
50	Empirical analysis of the hidden terminal problem in Wireless Underground Sensor Networks. , 2012, , .		20
51	Mobile data harvesting in wireless underground sensor networks. , 2012, , .		20
52	SDRCS: A service-differentiated real-time communication scheme for event sensing in wireless sensor networks. Computer Networks, 2011, 55, 3287-3302.	5.1	19
53	Vibration energy harvesting for wireless underground sensor networks. , 2013, , .		19
54	A-MAC: Adaptive Medium Access Control for Next Generation Wireless Terminals. IEEE/ACM Transactions on Networking, 2007, 15, 574-587.	3.8	18

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55	A Channel Model for Wireless Underground Sensor Networks Using Lateral Waves. , 2011, , .		17
56	Connecting soil to the cloud: A wireless underground sensor network testbed. , 2012, , .		14
57	Cross-layer analysis of error control in underwater wireless sensor networks. Computer Communications, 2012, 35, 2162-2172.	5.1	14
58	Cross-Layer Packet Size Optimization for Wireless Terrestrial, Underwater, and Underground Sensor Networks. , 2008, , .		13
59	Shades of White: Impacts of Population Dynamics and TV Viewership on Available TV Spectrum. IEEE Transactions on Vehicular Technology, 2019, 68, 2427-2442.	6.3	11
60	A Primer on Vehicle-to-Barrier Communications: Effects of Roadside Barriers, Encroachment, and Vehicle Braking. , 2016, , .		10
61	CFOSynt: Carrier frequency offset assisted clock syntonization for wireless sensor networks. , 2017, , .		10
62	Cost Efficiency of Anycast-Based Forwarding in Duty-Cycled WSNs with Lossy Channel. , 2010, , .		9
63	Design of a Wireless Vision Sensor for object tracking in Wireless Vision Sensor Networks. , 2008, , .		8
64	Sensing through the continent: Towards monitoring migratory birds using cellular sensor networks. , 2012, , .		8
65	A service-differentiated real-time communication scheme for wireless sensor networks. , 2008, , .		7
66	Power efficiency of cooperative communication in wireless sensor networks. , 2009, , .		6
67	Ratings for spectrum: Impacts of TV viewership on TV whitespace. , 2014, , .		6
68	CorTiS: Correlation-Based Time Synchronization in Internet of Things. , 2019, , .		6
69	A city-wide experimental testbed for the next generation wireless networks. Ad Hoc Networks, 2021, 111, 102305.	5.5	6
70	Energy Consumption and Latency Analysis for Wireless Multimedia Sensor Networks. , 2010, , .		5
71	Exploiting soil moisture information for adaptive error control in wireless underground sensor networks. , 2013, , .		5
72	A cognitive radio TV prototype for effective TV spectrum sharing. , 2017, , .		5

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73	Topology Analysis of Wireless Sensor Networks for Sandstorm Monitoring. , 2011, , .		4
74	Applications of Cognitive Radio Networks [From the Guest Editors]. IEEE Vehicular Technology Magazine, 2012, 7, 23-24.	3.4	4
75	Wireless Heterogeneous Networks and Next Generation Internet. Mobile Networks and Applications, 2010, 15, 607-609.	3.3	3
76	Vision Graph Construction in Wireless Multimedia Sensor Networks. , 2010, , .		3
77	A Dual-Network Testbed for Wireless Sensor Applications. , 2011, , .		3
78	Analysis of the accuracy-latency-energy tradeoff for wireless embedded camera networks. , 2011, , .		3
79	Vehicle-to-barrier communication during real-world vehicle crash tests. , 2016, , .		3
80	SPRIDE: Scalable and private continual geo-distance evaluation for precision agriculture. , 2017, , .		3
81	Dynamic Pricing of Wireless Internet Based on Usage and Stochastically Changing Capacity. Manufacturing and Service Operations Management, 2019, 21, 833-852.	3.7	3
82	Simulating and testing mobile wireless sensor networks. , 2010, , .		3
83	Impacts of Soil and Antenna Characteristics on LoRa in Internet of Underground Things. , 2021, , .		3
84	Stochastic performance trade-offs in the design of real-time wireless sensor networks. , 2015, , .		2
85	MPSBL: Multiple Transmit Power Assisted Sequence-Based Localization in Wireless Sensor Networks. , 2018, , .		2
86	Towards Optimal Synchronization Scheduling in Internet of (Heterogeneous) Things. , 2019, , .		2
87	Network Time Connectivity for Wireless Networks. , 2020, , .		2
88	Stochastic Modeling of Delay, Energy Consumption, and Lifetime. Signals and Communication Technology, 2014, , 11-56.	0.5	2
89	Crashing Waves: An Empirical Vehicle-to-Barrier Communication Channel Model via Crash Tests. , 2021, , .		2
90	Crane charades. , 2012, , .		1

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91	Wireless Underground Sensor Networks: System in Support of Future Agriculture. Journal of Nanotechnology in Engineering and Medicine, 2013, 4, .	0.8	1
92	Demo abstract: Clock syntonization using CFO information in Wireless Sensor Networks. , 2017, , .		1
93	Cross-layer Designs. , 2007, , 75-98.		1
94	Poster abstract: Crane charades: Behavior identification via backpack mounted sensor platforms. , 2012, , .		0
95	IEEE Software Defined Network Initiative. , 2013, , .		0
96	Stoop: Stochastically-Dominant Access Point Selection in Enterprise WLANs. , 2017, , .		0
97	OneLNK. , 2022, , .		0
98	STUN: Secret-Free Trust-Establishment For Underground Wireless Networks. , 2022, , .		0