Xiuzhen Cheng

List of Publications by Year
in descending order

141
papers

5,955
citations

109321

35
h-index

91884

69
g-index

143
all docs

143
docs citations

143
times ranked

4821
citing authors

#	Article	IF	Citations
1	Relay sensor placement in wireless sensor networks. Wireless Networks, 2008, 14, 347-355.	3.0	386
2	Edge Computing Security: State of the Art and Challenges. Proceedings of the IEEE, 2019, 107, 1608-1631.	21.3	295
3	A polynomial-time approximation scheme for the minimum-connected dominating set in ad hoc wireless networks. Networks, 2003, 42, 202-208.	2.7	273
4	Silent Positioning in Underwater Acoustic Sensor Networks. IEEE Transactions on Vehicular Technology, 2008, 57, 1756-1766.	6.3	248
5	Dynamic spectrum access: from cognitive radio to network radio. IEEE Wireless Communications, 2012, 19, 23-29.	9.0	234
6	Spectrum prediction in cognitive radio networks. IEEE Wireless Communications, 2013, 20, 90-96.	9.0	233
7	A Privacy Preserving Communication Protocol for IoT Applications in Smart Homes. IEEE Internet of Things Journal, 2017, 4, 1844-1852.	8.7	222
8	Blockchain for Large-Scale Internet of Things Data Storage and Protection. IEEE Transactions on Services Computing, 2019, 12, 762-771.	4.6	215
9	3D Underwater Sensor Network Localization. IEEE Transactions on Mobile Computing, 2009, 8, 1610-1621.	5.8	169
10	Strong minimum energy topology in wireless sensor networks: np-completeness and heuristics. IEEE Transactions on Mobile Computing, 2003, 2, 248-256.	5.8	147
11	TPS: a time-based positioning scheme for outdoor wireless sensor networks. , 0, , .		134
12	Sparse target counting and localization in sensor networks based on compressive sensing. , 2011, , .		129
13	Localized Outlying and Boundary Data Detection in Sensor Networks. IEEE Transactions on Knowledge and Data Engineering, 2007, 19, 1145-1157.	5.7	126
14	IoT Applications on Secure Smart Shopping System. IEEE Internet of Things Journal, 2017, 4, 1945-1954.	8.7	118
15	Virtual backbone construction in multihopad hoc wireless networks. Wireless Communications and Mobile Computing, 2006, 6, 183-190.	1.2	117
16	Body Area Network Security: A Fuzzy Attribute-Based Signcryption Scheme. IEEE Journal on Selected Areas in Communications, 2013, 31, 37-46.	14.0	105
17	Coverage Contribution Area Based k -Coverage for Wireless Sensor Networks. IEEE Transactions on Vehicular Technology, 2017, 66, 8510-8523.	6.3	104
18	Mutual Privacy Preserving k -Means Clustering in Social Participatory Sensing. IEEE Transactions on Industrial Informatics, 2017, 13, 2066-2076.	11.3	98

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19	OPFKA: Secure and efficient Ordered-Physiological-Feature-based key agreement for wireless Body Area Networks. , 2013, , .		95
20	A Secure and Verifiable Access Control Scheme for Big Data Storage in Clouds. IEEE Transactions on Big Data, 2018, 4, 341-355.	6.1	85
21	Channel quality prediction based on Bayesian inference in cognitive radio networks. , 2013, , .		81
22	AP Association for Proportional Fairness in Multirate WLANs. IEEE/ACM Transactions on Networking, 2014, 22, 191-202.	3.8	81
23	Multi-Armed-Bandit-Based Spectrum Scheduling Algorithms in Wireless Networks: A Survey. IEEE Wireless Communications, 2020, 27, 24-30.	9.0	64
24	Near-Online Tracking With Co-Occurrence Constraints in Blockchain-Based Edge Computing. IEEE Internet of Things Journal, 2021, 8, 2193-2207.	8.7	60
25	Opportunistic Routing in Intermittently Connected Mobile P2P Networks. IEEE Journal on Selected Areas in Communications, 2013, 31, 369-378.	14.0	57
26	Shortest Link Scheduling Algorithms in Wireless Networks Under the SINR Model. IEEE Transactions on Vehicular Technology, 2017, 66, 2643-2657.	6.3	56
27	Verifiable multi-secret sharing based on LFSR sequences. Theoretical Computer Science, 2012, 445, 52-62.	0.9	54
28	Cooperative multi-hop relaying via network formation games in cognitive radio networks. , 2013, , .		54
29	Secure Communications in Tiered 5G Wireless Networks With Cooperative Jamming. IEEE Transactions on Wireless Communications, 2019, 18, 3265-3280.	9.2	53
30	Mining Hard Samples Globally and Efficiently for Person Reidentification. IEEE Internet of Things Journal, 2020, 7, 9611-9622.	8.7	52
31	Utility-based cooperative spectrum sensing scheduling in cognitive radio networks. , 2013, , .		50
32	Implementing The Abstract MAC Layer in Dynamic Networks. IEEE Transactions on Mobile Computing, 2021, 20, 1832-1845.	5.8	49
33	Enhancing GPS With Lane-Level Navigation to Facilitate Highway Driving. IEEE Transactions on Vehicular Technology, 2017, 66, 4579-4591.	6.3	46
34	Faster Parallel Core Maintenance Algorithms in Dynamic Graphs. IEEE Transactions on Parallel and Distributed Systems, 2020, 31, 1287-1300.	5.6	46
35	Fault-Tolerant Target Localization in Sensor Networks. Eurasip Journal on Wireless Communications and Networking, 2007, 2007, .	2.4	44
36	Optimal Spectrum Sensing Interval in Cognitive Radio Networks. IEEE Transactions on Parallel and Distributed Systems, 2014, 25, 2408-2417.	5.6	44

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37	iTPS: an improved location discovery scheme for sensor networks with long-range beacons. Journal of Parallel and Distributed Computing, 2005, 65, 98-106.	4.1	43
38	Routing in pocket switched networks. IEEE Wireless Communications, 2012, 19, 67-73.	9.0	43
39	On Connected Target k-Coverage in Heterogeneous Wireless Sensor Networks. Sensors, 2016, 16, 104.	3.8	42
40	From Time Domain to Space Domain: Detecting Replica Attacks in Mobile Ad Hoc Networks. , 2010, , .		41
41	KUPS: Knowledge-based ubiquitous and persistent sensor networks for threat assessment. IEEE Transactions on Aerospace and Electronic Systems, 2008, 44, 1060-1069.	4.7	40
42	Stable Local Broadcast in Multihop Wireless Networks Under SINR. IEEE/ACM Transactions on Networking, 2018, 26, 1278-1291.	3.8	40
43	Distributed Spanner Construction With Physical Interference: Constant Stretch and Linear Sparseness. IEEE/ACM Transactions on Networking, 2017, 25, 2138-2151.	3.8	33
44	Robust Collaborative Spectrum Sensing Schemes for Cognitive Radio Networks. IEEE Transactions on Parallel and Distributed Systems, 2014, 25, 2190-2200.	5.6	32
45	SBK: A Self-Configuring Framework for Bootstrapping Keys in Sensor Networks. IEEE Transactions on Mobile Computing, 2008, 7, 858-868.	5.8	30
46	Security in wearable communications. IEEE Network, 2016, 30, 61-67.	6.9	30
47	A secure and verifiable outsourcing scheme for matrix inverse computation. , 2017, , .		30
48	Side-channel information leakage of encrypted video stream in video surveillance systems. , 2016, , .		29
49	iPAK: An In-Situ Pairwise Key Bootstrapping Scheme for Wireless Sensor Networks. IEEE Transactions on Parallel and Distributed Systems, 2007, 18, 1174-1184.	5.6	28
50	wChain: A Fast Fault-Tolerant Blockchain Protocol for Multihop Wireless Networks. IEEE Transactions on Wireless Communications, 2021, 20, 6915-6926.	9.2	28
51	An asymptotic analysis of some expert fusion methods. Pattern Recognition Letters, 2001, 22, 901-904.	4.2	26
52	Achievable transmission capacity of cognitive mesh networks with different media access control. , 2012, , .		26
53	Quality Control in Crowdsourcing Using Sequential Zero-Determinant Strategies. IEEE Transactions on Knowledge and Data Engineering, 2020, 32, 998-1009.	5.7	26
54	A multi-unit truthful double auction framework for secondary market. , 2013, , .		25

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55	Approximate data aggregation in sensor equipped IoT networks. Tsinghua Science and Technology, 2020, 25, 44-55.	6.1	25
56	Spectrum Assignment and Sharing for Delay Minimization in Multi-Hop Multi-Flow CRNs. IEEE Journal on Selected Areas in Communications, 2013, 31, 2483-2493.	14.0	24
57	A Secure and Practical Authentication Scheme Using Personal Devices. IEEE Access, 2017, 5, 11677-11687.	4.2	24
58	Achieving Proportional Fairness via AP Power Control in Multi-Rate WLANs. IEEE Transactions on Wireless Communications, 2011, 10, 3784-3792.	9.2	23
59	SINR based shortest link scheduling with oblivious power control in wireless networks. Journal of Network and Computer Applications, 2017, 77, 64-72.	9.1	23
60	Efficient Link Scheduling in Wireless Networks Under Rayleigh-Fading and Multiuser Interference. IEEE Transactions on Wireless Communications, 2020, 19, 5621-5634.	9.2	23
61	Securing communications between external users and wireless body area networks. , 2013, , .		22
62	A Privacy Preserving Communication Protocol for IoT Applications in Smart Homes. , 2016, , .		22
63	Cooperative Spectrum Prediction in Multi-PU Multi-SU Cognitive Radio Networks. Mobile Networks and Applications, 2014, 19, 502-511.	3.3	21
64	Distributed Consensus for Blockchains in Internet-of-Things Networks. Tsinghua Science and Technology, 2022, 27, 817-831.	6.1	21
65	A Range-Difference Based Self-Positioning Scheme for Underwater Acoustic Sensor Networks. , 2007, , .		20
66	Analyzing the potential of mobile opportunistic networks for big data applications. IEEE Network, 2015, 29, 57-63.	6.9	19
67	I Can See Your Brain: Investigating Home-Use Electroencephalography System Security. IEEE Internet of Things Journal, 2019, 6, 6681-6691.	8.7	19
68	Distributed Byzantine-Resilient Multiple-Message Dissemination in Wireless Networks. IEEE/ACM Transactions on Networking, 2021, 29, 1662-1675.	3.8	19
69	Traffic clustering and online traffic prediction in vehicle networks: A social influence perspective. , 2012, , .		18
70	Robust Compressive Data Gathering in Wireless Sensor Networks. IEEE Transactions on Wireless Communications, 2013, 12, 2754-2761.	9.2	18
71	Mobility-Assisted Routing in Intermittently Connected Mobile Cognitive Radio Networks. IEEE Transactions on Parallel and Distributed Systems, 2014, 25, 2956-2968.	5.6	18
72	Distributed Dominating Set and Connected Dominating Set Construction Under the Dynamic SINR Model. , 2019, , .		18

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73	Privacy-Preserving Collaborative Learning for Multiarmed Bandits in IoT. IEEE Internet of Things Journal, 2021, 8, 3276-3286.	8.7	18
74	Localized and distributed link scheduling algorithms in IoT under rayleigh fading. Computer Networks, 2019, 151, 232-244.	5.1	17
75	Big data routing in D2D communications with cognitive radio capability. IEEE Wireless Communications, 2016, 23, 45-51.	9.0	16
76	Secure multi-unit sealed first-price auction mechanisms. Security and Communication Networks, 2016, 9, 3833-3843.	1.5	15
77	Multi-hop access pricing in public area WLANs. , 2011, , .		14
78	Fast skyline community search in multi-valued networks. Big Data Mining and Analytics, 2020, 3, 171-180.	8.9	14
79	Fault-tolerant target detection in sensor networks. , 0, , .		13
80	Time-Bounded Essential Localization for Wireless Sensor Networks. IEEE/ACM Transactions on Networking, 2013, 21, 400-412.	3.8	13
81	The Tempo-Spatial Information Dissemination Properties of Mobile Opportunistic Networks with Levy Mobility. , 2014, , .		13
82	Localized Algorithms for Yao Graph-Based Spanner Construction in Wireless Networks Under SINR. IEEE/ACM Transactions on Networking, 2017, 25, 2459-2472.	3.8	13
83	Enabling Technologies for Spectrum and Energy Efficient NOMA-MmWave-MaMIMO Systems. IEEE Wireless Communications, 2020, 27, 53-59.	9.0	13
84	Location-centric storage for safety warning based on roadway sensor networks. Journal of Parallel and Distributed Computing, 2007, 67, 336-345.	4.1	12
85	Compressive sensing in distributed radar sensor networks using pulse compression waveforms. Eurasip Journal on Wireless Communications and Networking, 2013, 2013, .	2.4	12
86	Truthful multi-attribute auction with discriminatory pricing in cognitive radio networks. , 2013, , .		12
87	Joint design of jammer selection and beamforming for securing MIMO cooperative cognitive radio networks. IET Communications, 2017, 11, 1264-1274.	2.2	12
88	Batch Processing for Truss Maintenance in Large Dynamic Graphs. IEEE Transactions on Computational Social Systems, 2020, 7, 1435-1446.	4.4	12
89	Sampling-based approximate skyline query in sensor equipped IoT networks. Tsinghua Science and Technology, 2021, 26, 219-229.	6.1	12
90	Efficient Link Scheduling Solutions for the Internet of Things Under Rayleigh Fading. IEEE/ACM Transactions on Networking, 2021, 29, 2508-2521.	3.8	12

#	Article	IF	Citations
91	QueueSense: Collaborative recognition of queuing on mobile phones. , 2014, , .		11
92	Truthful multi-attribute auction with discriminatory pricing in cognitive radio networks. Mobile Computing and Communications Review, 2014, 18, 3-13.	1.7	11
93	An Extensible and Flexible Truthful Auction Framework for Heterogeneous Spectrum Markets. IEEE Transactions on Cognitive Communications and Networking, 2016, 2, 427-441.	7.9	11
94	An Exact Implementation of the Abstract MAC Layer via Carrier Sensing in Dynamic Networks. IEEE/ACM Transactions on Networking, 2021, 29, 994-1007.	3.8	11
95	Decentralized Parallel SGD With Privacy Preservation in Vehicular Networks. IEEE Transactions on Vehicular Technology, 2021, 70, 5211-5220.	6.3	11
96	TPSS: A Time-based Positioning Scheme for Sensor Networks with Short Range Beacons. Signals and Communication Technology, 2008, , 175-193.	0.5	11
97	Minimum connected dominating set construction in wireless networks under the beeping model. , 2015, , .		10
98	A novel verification method for payment card systems. Personal and Ubiquitous Computing, 2015, 19, 1145-1156.	2.8	10
99	Cooperative spectrum sharing of multiple primary users and multiple secondary users. Digital Communications and Networks, 2016, 2, 191-195.	5.0	10
100	Connected dominating set construction in cognitive radio networks. Personal and Ubiquitous Computing, 2016, 20, 757-769.	2.8	10
101	IoT Applications on Secure Smart Shopping. , 2016, , .		10
102	SA Framework based De-anonymization of Social Networks. Procedia Computer Science, 2018, 129, 358-363.	2.0	10
103	Distributed Broadcasting in Dynamic Networks. IEEE/ACM Transactions on Networking, 2021, 29, 2142-2155.	3.8	10
104	TPSS: A Time-Based Positioning Scheme for Sensor Networks with Short Range Beacons. Lecture Notes in Computer Science, 2005, , 33-42.	1.3	10
105	QuickCash: Secure Transfer Payment Systems. Sensors, 2017, 17, 1376.	3.8	9
106	Privacy-Enhancing Preferential LBS Query for Mobile Social Network Users. Wireless Communications and Mobile Computing, 2020, 2020, 1-13.	1.2	9
107	An extensible and flexible truthful auction framework for heterogeneous spectrum markets. , 2014, , .		8
108	Secure Auctions without an Auctioneer via Verifiable Secret Sharing. , 2015, , .		8

#	Article	IF	Citations
109	Perturbation-Based Private Profile Matching in Social Networks. IEEE Access, 2017, 5, 19720-19732.	4.2	8
110	Implementing the Abstract MAC Layer via Inductive Coloring Under the Rayleigh-Fading Model. IEEE Transactions on Wireless Communications, 2021, 20, 6167-6178.	9.2	8
111	Polynomial Time Approximation Scheme for Symmetric Rectilinear Steiner Arborescence Problem. Journal of Global Optimization, 2001, 21, 385-396.	1.8	7
112	Connected dominating set algorithms for wireless sensor networks. International Journal of Sensor Networks, 2013, 13, 121.	0.4	7
113	HERO â€" A Home Based Routing in Pocket Switched Networks. Lecture Notes in Computer Science, 2012, , 20-30.	1.3	7
114	A Range-Difference Based Self-Positioning Scheme for Underwater Acoustic Sensor Networks. , 2007, , .		6
115	Location-centric storage and query in wireless sensor networks. Wireless Networks, 2010, 16, 955-967.	3.0	6
116	Distributed Algorithm for Connected Dominating Set Construction in Sensor Networks. , 2013, , .		6
117	Target Counting in Wireless Sensor Networks. Signals and Communication Technology, 2014, , 235-269.	0.5	6
118	A coalition formation game based relay selection scheme for cooperative cognitive radio networks. Wireless Networks, 2017, 23, 2533-2544.	3.0	6
119	Distributed Social Learning With Imperfect Information. IEEE Transactions on Network Science and Engineering, 2021, 8, 841-852.	6.4	6
120	A Polynomial Time Approximation Scheme for the Problem of Interconnecting Highways. Journal of Combinatorial Optimization, 2001, 5, 327-343.	1.3	5
121	Secure friend discovery based on encounter history in mobile social networks. Personal and Ubiquitous Computing, 2015, 19, 999-1009.	2.8	5
122	Wireless Relay Selection in Pocket Switched Networks Based on Spatial Regularity of Human Mobility. Sensors, 2016, 16, 94.	3.8	5
123	A Secure Multi-unit Sealed First-Price Auction Mechanism. Lecture Notes in Computer Science, 2015, , 295-304.	1.3	5
124	A Bitcoin Based Incentive Mechanism for Distributed P2P Applications. Lecture Notes in Computer Science, 2017, , 457-468.	1.3	5
125	Achievable transmission capacity of cognitive radio networks with cooperative relaying. Eurasip Journal on Wireless Communications and Networking, 2015, 2015, .	2.4	4
126	Cooperative Coverage Extension for Relay-Union Networks. IEEE Transactions on Parallel and Distributed Systems, 2015, 26, 371-381.	5.6	4

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127	Fast Fault-Tolerant Sampling via Random Walk in Dynamic Networks. , 2019, , .		4
128	Distributed back-pressure scheduling with opportunistic routing in cognitive radio networks. Eurasip Journal on Wireless Communications and Networking, 2015, 2015, .	2.4	3
129	Quantum Analysis on Task Allocation and Quality Control for Crowdsourcing With Homogeneous Workers. IEEE Transactions on Network Science and Engineering, 2020, 7, 2830-2839.	6.4	3
130	SeGrid: A Secure Grid Framework for Sensor Networks. Eurasip Journal on Wireless Communications and Networking, 2006, 2006, 1.	2.4	2
131	Distributed Algorithm for Truss Maintenance in Dynamic Graphs. Lecture Notes in Computer Science, 2021, , 104-115.	1.3	2
132	Delay modeling in mobile cognitive radio networks. , 2012, , .		1
133	De-anonymizing Scale-Free Social Networks by Using Spectrum Partitioning Method. Procedia Computer Science, 2019, 147, 441-445.	2.0	1
134	Truthful Auction Analysis and Design in Multiunit Heterogenous Spectrum Markets With Reserve Prices. IEEE Transactions on Cognitive Communications and Networking, 2021, 7, 157-170.	7.9	1
135	A Cloud-Based Framework for Verifiable Privacy-Preserving Spectrum Auction. High-Confidence Computing, 2021, , 100037.	3.7	1
136	PPAR: A Privacy-Preserving Adaptive Ranking Algorithm for Multi-Armed-Bandit Crowdsourcing. , 2022, , .		1
137	Localized Flooding Backbone Construction for Location Privacy in Sensor Networks. , 2007, , .		0
138	In Situ Key Establishment in Large-Scale Sensor Networks. Eurasip Journal on Wireless Communications and Networking, 2009, 2009, .	2.4	0
139	Low Price to Win: Interactive scheme in cooperative cognitive radio networks. , 2015, , .		0
140	Energy Efficiency in Wireless Networks. , 2013, , 1155-1197.		0
141	Sampling Based $$delta $$Î´-Approximate Data Aggregation in Sensor Equipped IoT Networks. Lecture Notes in Computer Science, 2018, , 249-260.	1.3	0