Burak Kantarci

List of Publications by Year
in descending order

186 papers	4,531 citations	186254 28 h-index	168376 53 g-index
187 all docs	187 docs citations	187 times ranked	4086 citing authors

#	Article	IF	Citations
1	Health Monitoring and Management Using Internet-of-Things (IoT) Sensing with Cloud-Based Processing: Opportunities and Challenges. , 2015, , .		490
2	A Survey on Mobile Crowdsensing Systems: Challenges, Solutions, and Opportunities. IEEE Communications Surveys and Tutorials, 2019, 21, 2419-2465.	39.4	334
3	On the Feasibility of Deep Learning in Sensor Network Intrusion Detection. IEEE Networking Letters, 2019, 1, 68-71.	1.9	195
4	Trustworthy Sensing for Public Safety in Cloud-Centric Internet of Things. IEEE Internet of Things Journal, 2014, 1, 360-368.	8.7	185
5	A survey on cybersecurity, data privacy, and policy issues in cyber-physical system deployments in smart cities. Sustainable Cities and Society, 2019, 50, 101660.	10.4	158
6	Federated Learning in Smart City Sensing: Challenges and Opportunities. Sensors, 2020, 20, 6230.	3.8	129
7	Quantifying User Reputation Scores, Data Trustworthiness, and User Incentives in Mobile Crowd-Sensing. IEEE Access, 2017, 5, 1382-1397.	4.2	127
8	Anchor-Assisted and Vote-Based Trustworthiness Assurance in Smart City Crowdsensing. IEEE Access, 2016, 4, 529-541.	4.2	102
9	Reliable overlay topology design for the smart microgrid network. IEEE Network, 2011, 25, 38-43.	6.9	99
10	CrowdSenSim: a Simulation Platform for Mobile Crowdsensing in Realistic Urban Environments. IEEE Access, 2017, 5, 3490-3503.	4.2	92
11	Large-Scale Distributed Dedicated- and Non-Dedicated Smart City Sensing Systems. IEEE Sensors Journal, 2017, 17, 7649-7658.	4.7	90
12	Sensing, communication and security planes: A new challenge for a smart city system design. Computer Networks, 2018, 144, 163-200.	5.1	86
13	A continuous diversified vehicular cloud service availability framework for smart cities. Computer Networks, 2018, 145, 207-218.	5.1	80
14	A Local-Optimization Emergency Scheduling Scheme With Self-Recovery for a Smart Grid. IEEE Transactions on Industrial Informatics, 2017, 13, 3195-3205.	11.3	72
15	Intelligent Gaming for Mobile Crowd-Sensing Participants to Acquire Trustworthy Big Data in the Internet of Things. IEEE Access, 2017, 5, 22209-22223.	4.2	63
16	Social Behaviometrics for Personalized Devices in the Internet of Things Era. IEEE Access, 2017, 5, 12199-12213.	4.2	62
17	Machine Learning in Cardiac Health Monitoring and Decision Support. Computer, 2016, 49, 38-48.	1.1	55
18	Empowering Reinforcement Learning on Big Sensed Data for Intrusion Detection. , 2019, , .		55

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19	Multiagent/multiobjective interaction game system for service provisioning in vehicular cloud. IEEE Access, 2016, 4, 3153-3168.	4.2	53
20	Smart City System Design. ACM Computing Surveys, 2020, 52, 1-38.	23.0	50
21	Detection of Known and Unknown Intrusive Sensor Behavior in Critical Applications. , 2017, 1, 1-4.		49
22	Soft Sensing in Smart Cities: Handling 3Vs Using Recommender Systems, Machine Intelligence, and Data Analytics. , 2018, 56, 78-86.		49
23	Machine learning-driven intrusion detection for Contiki-NG-based IoT networks exposed to NSL-KDD dataset. , 2020, , .		49
24	Big Sensed Data Meets Deep Learning for Smarter Health Care in Smart Cities. Journal of Sensor and Actuator Networks, 2017, 6, 26.	3.9	43
25	The Smart Citizen Factor in Trustworthy Smart City Crowdsensing. IT Professional, 2016, 18, 26-33.	1.5	42
26	Adaptively Supervised and Intrusion-Aware Data Aggregation for Wireless Sensor Clusters in Critical Infrastructures. , 2018, , .		42
27	Anomaly detection and privacy preservation in cloud-centric Internet of Things. , 2015, , .		41
28	Energy efficiency in the extended-reach fiber-wireless access networks. IEEE Network, 2012, 26, 28-35.	6.9	39
29	Virtual machine migration and management for vehicular clouds. Vehicular Communications, 2016, 4, 47-56.	4.0	38
30	Multimedia recommendation and transmission system based on cloud platform. Future Generation Computer Systems, 2017, 70, 94-103.	7.5	38
31	Sociability-Driven Framework for Data Acquisition in Mobile Crowdsensing Over FogÂComputing Platforms for Smart Cities. IEEE Transactions on Sustainable Computing, 2017, 2, 345-358.	3.1	38
32	Artificial Intelligence-Empowered Mobilization of Assessments in COVID-19-like Pandemics: A Case Study for Early Flattening of the Curve. International Journal of Environmental Research and Public Health, 2020, 17, 3437.	2.6	37
33	Inter-and-intra data center VM-placement for energy-efficient large-Scale cloud systems. , 2012, , .		31
34	Game Theory in Mobile CrowdSensing: A Comprehensive Survey. Sensors, 2020, 20, 2055.	3.8	31
35	On blockchain integration into mobile crowdsensing via smart embedded devices: A comprehensive survey. Journal of Systems Architecture, 2021, 115, 102011.	4.3	31
36	SONATA. International Journal of Distributed Systems and Technologies, 2016, 7, 59-78.	0.7	31

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37	Designing an Energy-Efficient Cloud Network [Invited]. Journal of Optical Communications and Networking, 2012, 4, B101.	4.8	29
38	Low-Latency Communications for Community Resilience Microgrids: A Reinforcement Learning Approach. IEEE Transactions on Smart Grid, 2020, 11, 1091-1099.	9.0	29
39	Mobility-aware trustworthy crowdsourcing in cloud-centric Internet of Things. , 2014, , .		28
40	Bandwidth Distribution Solutions for Performance Enhancement in Long-Reach Passive Optical Networks. IEEE Communications Surveys and Tutorials, 2011, , .	39.4	26
41	A Comparative Study of AI-Based Intrusion Detection Techniques in Critical Infrastructures. ACM Transactions on Internet Technology, 2021, 21, 1-22.	4.4	26
42	Hierarchical trust-based black-hole detection in WSN-based smart grid monitoring. , 2017, , .		25
43	Sociability-Driven User Recruitment in Mobile Crowdsensing Internet of Things Platforms. , 2016, , .		24
44	Energy-Efficient Cloud Services over Wavelength-Routed Optical Transport Networks. , 2011, , .		23
45	A Localization Method Avoiding Flip Ambiguities for Micro-UAVs with Bounded Distance Measurement Errors. IEEE Transactions on Mobile Computing, 2019, 18, 1718-1730.	5.8	23
46	Optimal Reconfiguration of the Cloud Network for Maximum Energy Savings. , 2012, , .		22
47	Availability and Cost-Constrained Long-Reach Passive Optical Network Planning. IEEE Transactions on Reliability, 2012, 61, 113-124.	4.6	21
48	Game-Theoretic Recruitment of Sensing Service Providers for Trustworthy Cloud-Centric Internet-of-Things (IoT) Applications. , 2016, , .		21
49	Queuing Algorithm for Effective Target Coverage in Mobile Crowd Sensing. IEEE Internet of Things Journal, 2017, 4, 1046-1055.	8.7	21
50	Mitigating False Negative intruder decisions in WSN-based Smart Grid monitoring. , 2017, , .		21
51	A Novel Reputation-aware Client Selection Scheme for Federated Learning within Mobile Environments. , 2020, , .		21
52	Adversarial Machine Learning: A Multilayer Review of the State-of-the-Art and Challenges for Wireless and Mobile Systems. IEEE Communications Surveys and Tutorials, 2022, 24, 123-159.	39.4	21
53	An integrated reconfigurable control and self-organizing communication framework for community resilience microgrids. Electricity Journal, 2017, 30, 27-34.	2.5	20
54	Trajectory Assisted Municipal Agent Mobility: A Sensor-Driven Smart Waste Management System. Journal of Sensor and Actuator Networks, 2018, 7, 29.	3.9	20

#	Article	IF	Citations
55	Invited Paper: AI-Based Security Design of Mobile Crowdsensing Systems: Review, Challenges and Case Studies. , 2019, , .		20
56	Machine Learning-Enabled IoT Security: Open Issues and Challenges Under Advanced Persistent Threats. ACM Computing Surveys, 2023, 55, 1-37.	23.0	20
57	Greening the availability design of optical WDM networks. , 2010, , .		18
58	Trustworthy crowdsourcing via mobile social networks. , 2014, , .		18
59	Dynamic Virtual Machine Migration in a vehicular cloud. , 2014, , .		18
60	SOBER-MCS: Sociability-Oriented and Battery Efficient Recruitment for Mobile Crowd-Sensing. Sensors, 2018, 18, 1593.	3.8	18
61	A Novel Ensemble Method for Advanced Intrusion Detection in Wireless Sensor Networks. , 2020, , .		18
62	Analysis of Augmentation Methods for RF Fingerprinting under Impaired Channels. , 2022, , .		18
63	Performance of OBS techniques under self-similar traffic based on various burst assembly techniques. Computer Communications, 2007, 30, 315-325.	5.1	17
64	Cost-Aware Smart Microgrid Network design for a sustainable smart grid. , 2011, , .		17
65	Smart grid monitoring with service differentiation via EPON and wireless sensor network convergence. Optical Switching and Networking, 2014, 14, 53-68.	2.0	17
66	Holistic design for deep learning-based discovery of tabular structures in datasheet images. Engineering Applications of Artificial Intelligence, 2020, 90, 103551.	8.1	17
67	TableDet: An end-to-end deep learning approach for table detection and table image classification in data sheet images. Neurocomputing, 2022, 468, 317-334.	5.9	17
68	Periodic GATE Optimization (PGO): A New Service Scheme for Long-Reach Passive Optical Networks. IEEE Systems Journal, 2010, 4, 440-448.	4.6	16
69	On the impact of quality of experience (QoE) in a vehicular cloud with various providers. , 2014, , .		16
70	Disaster resilience of optical networks: State of the art, challenges, and opportunities. Optical Switching and Networking, 2021, 42, 100619.	2.0	16
71	Power saving clusters for energy-efficient design of fiber-wireless access networks. , 2010, , .		15
72	Self Organizing Feature Map for Fake Task Attack Modelling in Mobile Crowdsensing. , 2019, , .		15

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73	AI-driven autonomous vehicles as COVID-19 assessment centers: A novel crowdsensing-enabled strategy. Pervasive and Mobile Computing, 2021, 75, 101426.	3.3	15
74	Towards secure cloud-centric Internet of Biometric Things. , 2015, , .		14
75	Fairness-Aware Game Theoretic Approach for Service Management in Vehicular Clouds. , 2017, , .		14
76	A survey on the communication and network enablers for cloud-based services: state of the art, challenges, and opportunities. Annales Des Telecommunications/Annals of Telecommunications, 2018, 73, 169-192.	2.5	14
77	Deep Learning-Based Detection of Fake Task Injection in Mobile Crowdsensing. , 2019, , .		14
78	Empowering Self-Organized Feature Maps for AI-Enabled Modeling of Fake Task Submissions to Mobile Crowdsensing Platforms. IEEE Internet of Things Journal, 2021, 8, 1334-1346.	8.7	14
79	Reliable and fast restoration for a survivable wireless-optical broadband access network. , 2010, , .		13
80	Vehicular clouds: State of the art, challenges and future directions. , 2015, , .		13
81	Machine Learning-based Prevention of Battery-oriented Illegitimate Task Injection in Mobile Crowdsensing. , 2019, , .		13
82	A tutorial on AI-powered 3D deployment of drone base stations: State of the art, applications and challenges. Vehicular Communications, 2022, 36, 100474.	4.0	13
83	Mobile behaviometric framework for sociability assessment and identification of smartphone users. , 2016, , .		12
84	The impact of time of use (ToU)-awareness in energy and opex performance of a cloud backbone. , 2012, , .		11
85	Resilient design of a cloud system over an optical backbone. IEEE Network, 2015, 29, 80-87.	6.9	11
86	MQTT-Driven Sustainable Node Discovery for Internet of Things-Fog Environments. , 2018, , .		11
87	Detecting Fake Mobile Crowdsensing Tasks: Ensemble Methods Under Limited Data. IEEE Vehicular Technology Magazine, 2020, 15, 86-94.	3.4	11
88	Distributed management of energy-efficient lightpaths for computational grids. , 2012, , .		10
89	Design of energyâ€efficient cloud systems via network and resource virtualization. International Journal of Network Management, 2015, 25, 75-94.	2.2	10
90	MQTT-Driven Node Discovery for Integrated IoT-Fog Settings Revisited: The Impact of Advertiser Dynamicity. , 2018, , .		10

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91	Gesture and Sociability-based Continuous Authentication on Smart Mobile Devices. , 2018, , .		9
92	Fog-Driven Context-Aware Architecture for Node Discovery and Energy Saving Strategy for Internet of Things Environments. IEEE Access, 2019, 7, 134173-134186.	4.2	9
93	Locally reconfigurable Self Organizing Feature Map for high impact malicious tasks submission in Mobile Crowdsensing. Internet of Things (Netherlands), 2020, 12, 100297.	7.7	9
94	Attention-Based Event Characterization for Scarce Vehicular Sensing Data. IEEE Open Journal of Vehicular Technology, 2020, 1, 317-330.	4.9	9
95	Reputation-enabled Federated Learning Model Aggregation in Mobile Platforms. , 2021, , .		9
96	Bridging Predictive Analytics and Mobile Crowdsensing for Future Risk Maps of Communities Against COVID-19. , 2020, , .		9
97	Provisioning delay effect of partaking a Trusted Third Party in a vehicular cloud. , 2014, , .		8
98	An Auction-Driven Multi-Objective Provisioning Framework in a Vehicular Cloud. , 2015, , .		8
99	Cyber-physical alternate route recommendation system for paramedics in an urban area. , 2015, , .		8
100	A Generalized Framework for Quality of Experience (QoE)-Based Provisioning in a Vehicular Cloud. , 2015, , .		8
101	COVERS-UP: Collaborative Verification of Smart User Profiles for social sustainability of smart cities. Sustainable Cities and Society, 2018, 38, 348-358.	10.4	8
102	Contextual, Behavioral, and Biometric Signatures for Continuous Authentication. IEEE Internet Computing, 2019, 23, 18-28.	3.3	8
103	Towards ensuring the reliability and dependability of vehicular crowd-sensing data in GPS-less location tracking. Pervasive and Mobile Computing, 2020, 68, 101248.	3.3	8
104	Artificial intelligence in deep learning algorithms for multimedia analysis. Multimedia Tools and Applications, 2020, 79, 34129-34139.	3.9	8
105	Towards cellular IP address assignment in wireless heterogeneous sensor networks. , 2011, , .		7
106	A reference model for crowdsourcing as a service. , 2015, , .		7
107	A probabilistic process learning approach for service composition in cloud networks. , 2017, , .		7
108	Bridging Connected Vehicles with Artificial Intelligence for Smart First Responder Services. , 2019, , .		7

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109	Deep Belief Network-based Fake Task Mitigation for Mobile Crowdsensing under Data Scarcity. , 2020, , .		7
110	Accuracy improvement of electrical load forecasting against new cyber-attack architectures. Sustainable Cities and Society, 2022, 77, 103523.	10.4	7
111	Optimization for Fault Localization in All-Optical Networks. Journal of Lightwave Technology, 2009, 27, 4832-4840.	4.6	6
112	Periodic GATE Optimization (PGO) in Long-Reach Passive Optical Networks. , 2010, , .		6
113	Optimization models for reliable long-reach PON deployment. , 2011, , .		6
114	Energy-efficient DBA and QoS in FiWi networks constrained to metro-access convergence. , 2012, , .		6
115	Design considerations for energy-efficient Multi-Granular Optical Networks. , 2012, , .		6
116	Power and cost reduction in optical transport networks by Multi-Granular switching with optical reach consideration. , 2012, , .		6
117	Minimizing the provisioning delay in the cloud network: Benefits, overheads and challenges. , 2012, , .		6
118	Microgrid Data Aggregation and Wireless Transfer Scheduling in the Presence of Time Sensitive Events. , 2018, , .		6
119	Deep Learning for the Detection of Tabular Information from Electronic Component Datasheets. , 2019, , .		6
120	Towards energy-efficient hybrid Fiber-Wireless Access Networks. , 2011, , .		5
121	Energy-efficient realistic design and planning of optical backbone with multi-granular switching. , 2012, , .		5
122	Cellular IP address provisioning in a heterogeneous wireless network. International Journal of Communication Systems, 2014, 27, 2007-2021.	2.5	5
123	Trusted Third Party for service management in vehicular clouds. , 2017, , .		5
124	Emulating Smart City Sensors Using Soft Sensing and Machine Intelligence: A Case Study in Public Transportation. , 2018, , .		5
125	Knowledge-Based Machine Learning Boosting for Adversarial Task Detection in Mobile Crowdsensing. , 2020, , .		5
126	TabCellNet: Deep learning-based tabular cell structure detection. Neurocomputing, 2021, 440, 12-23.	5.9	5

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127	On SLA constraints in dynamic bandwidth allocation for long-reach passive optical networks. , 2010, , .		4
128	Distributed discovery services via EPC-BGP for mobile RFID. , 2013, , .		4
129	Detection of spoofed identities on smartphones via sociability metrics. , 2017, , .		4
130	Resiliency versus energy sustainability in optical inter-datacenter networks. Optical Switching and Networking, 2017, 23, 144-155.	2.0	4
131	Reliability-Driven Vehicular Crowd-Sensing: A Case Study for Localization in Public Transportation. , 2018, , .		4
132	Selective versus Non-Selective Acquisition of Crowd-Solicited IoT Data and Its Dependability. , 2018, , .		4
133	A Capacity-Aware User Recruitment Framework for Fog-Based Mobile Crowd-Sensing Platforms. , 2019, , .		4
134	Deep Learning for Recognizing the Anatomy of Tables on Datasheets. , 2019, , .		4
135	Hierarchical Optimal Control of the Resilient Community Microgrid in Islanded Mode. , 2019, , .		4
136	Ensemble Learning Against Adversarial AI-driven Fake Task Submission in Mobile Crowdsensing. , 2020, , .		4
137	Cost-aware Data Aggregation and Energy Decentralization with Electrical Vehicles in Microgrids through LTE Links. , 2020, , .		4
138	All Predict Wisest Decides: A Novel Ensemble Method to Detect Intrusive Traffic in IoT Networks. , 2021, , .		4
139	A New Realistic Benchmark for Advanced Persistent Threats in Network Traffic. IEEE Networking Letters, 2022, 4, 162-166.	1.9	4
140	Performance optimization for fault localization in all-optical networks. , 2008, , .		3
141	Optimization for minimizing fault localization time in all-optical networks. , 2008, , .		3
142	Availability and cost constrained fast planning of Passive Optical Networks under various survivability policies. , 2010, , .		3
143	A mobile platform for sociability-based continuous identification. , 2016, , .		3
144	On the Impact of Selective Data Acquisition in Mobile Crowd-Sensing Performance. , 2018, , .		3

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145	Machine Learning-Driven Event Characterization under Scarce Vehicular Sensing Data. , 2020, , .		3
146	Aggregation of Incentivized Learning Models in Mobile Federated Learning Environments. IEEE Networking Letters, 2021, 3, 196-200.	1.9	3
147	Federated Learning-Based Risk-Aware Decision to Mitigate Fake Task Impacts on Crowdsensing Platforms. , 2021, , .		3
148	Poisoning Attack Anticipation in Mobile Crowdsensing. , 2021, , .		3
149	Utility-Aware Legitimacy Detection of Mobile Crowdsensing Tasks via Knowledge-Based Self Organizing Feature Map. IEEE Transactions on Mobile Computing, 2023, 22, 3706-3723.	5.8	3
150	Connection provisioning constrained to fault localization in all-optical networks. , 2008, , .		2
151	Economizing the operational costs of cloud services in an optical transport network. , 2013, , .		2
152	Performance impacts of hybrid cloud storage. Computing (Vienna/New York), 2017, 99, 1207-1229.	4.8	2
153	Participatory detection of identity theft on mobile social platforms. , 2017, , .		2
154	TA-CROCS: Trustworthiness-Aware Coalitional Recruitment of Crowd-Sensors. , 2018, , .		2
155	A Feasibility Study on Sustainability-Driven Infrastructure Management in Cloud Data Centers. , 2018, , .		2
156	Participant Comfort Adaptation in Dependable Mobile Crowdsensing Services. , 2020, , .		2
157	On Coalitional and Non-Coalitional Games in the Design of User Incentives for Dependable Mobile Crowdsensing Services. , 2020, , .		2
158	Transit Networks, Social Contacts, and Open Data Meet Public Transportation Plans for Post-COVID-19: A Canadian Case Study. IEEE Engineering Management Review, 2021, 49, 30-41.	1.3	2
159	Deep Learning in Smart Health: Methodologies, Applications, Challenges. , 2020, , 23-46.		2
160	Region-Aware Bagging and Deep Learning-Based Fake Task Detection in Mobile Crowdsensing Platforms. , 2020, , .		2
161	Self Organizing Feature Map-Integrated Knowledge-Based Deep Network Against Fake Crowdsensing Tasks. , 2020, , .		2
162	SLA-Aware Protection Switching in optical WDM networks. , 2010, , .		1

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163	Hybrid Markov model for availability-guaranteed connection provisioning in optical WDM networks. , 2011, , .		1
164	Multi-Granular Optical Transport Network design with dual power state. , 2012, , .		1
165	Optical inter-data-center network design under resilience requirements and dynamic electricity pricing. , 2014, , .		1
166	Sensory Data-Driven Modeling of Adversaries in Mobile Crowdsensing Platforms. , 2019, , .		1
167	Big data aggregation in the case of heterogeneity: a feasibility study for digital health. International Journal of Machine Learning and Cybernetics, 2019, 10, 2643-2655.	3.6	1
168	High Precision Deep Learning-Based Tabular Position Detection. , 2020, , .		1
169	Prior Knowledge Input to Improve LSTM Auto-encoder-based Characterization of Vehicular Sensing Data. , 2021, , .		1
170	Adversarial Machine Learning-Driven Fake Task Anticipation in Mobile Crowdsensing Systems. , 2021, , .		1
171	On the Impact of Data Integrity Attacks on Vehicle-to-Microgrid Services. , 2021, , .		1
172	Unveiling the Wireless Network Limitations in Federated Learning. , 2021, , .		1
173	Near optimal scheduling for opportunistic spectrum access over block fading channels in cognitive radio assisted vehicular network. Vehicular Communications, 2022, 37, 100500.	4.0	1
174	Performance analysis of SLA-aware connection provisioning in optical networks. , 2011, , .		0
175	Energy versus delay trade-offs in metro-access convergence. , 2012, , .		0
176	Greening the multi-granular optical transport network design under the optical reach constraint. , 2012, , .		0
177	Green realistic design of Multi-Granular Optical core networks. , 2014, , .		0
178	Delay tolerant EPC-BGP for discovery services in EPCGlobal networks. , 2014, , .		0
179	Hybrid threshold-based distributed discovery service for the EPCglobal network. , 2014, , .		0
180	Energy efficient VM migration revisited: SLA assurance and minimum service disruption with available hosts. , 2015, , .		0

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181	Empowering Human-Computer Interaction in Securing Smartphone Sensing. , 2018, , .		0
182	Guest Editorsâ€™ Introduction: Special Section on Mobile Cloud Computing. IEEE Transactions on Cloud Computing, 2019, 7, 298-300.	4.4	0
183	Guest Editorial: Special Issue on Emerging Technology for Software Define Network Enabled Internet of Things. International Journal of Parallel Programming, 2020, 48, 157-161.	1.5	0
184	Enterprise Security with Adaptive Ensemble Learning on Cooperation and Interaction Patterns. , 2020, , .		0
185	On Delay Sensitivity Clusters of Microgrid Data Aggregation Under LTE-A Links. , 2021, , .		0
186	Machine Learning-Backed Planning of Rapid COVID-19 Tests With Autonomous Vehicles With Zero-Day Considerations. IEEE Transactions on Emerging Topics in Computational Intelligence, 2022, 6, 41-52.	4.9	0