

Ala Al-Fuqaha

List of Publications by Year in descending order

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Version: 2024-02-01

149
papers

12,371
citations

201674

27
h-index

76900

74
g-index

156
all docs

156
docs citations

156
times ranked

12419
citing authors

#	ARTICLE	IF	CITATIONS
1	Social Media as an Instant Source of Feedback on Water Quality. IEEE Transactions on Technology and Society, 2024, , 1-1.	3.2	3
2	Fine-Grained Data Selection for Improved Energy Efficiency of Federated Edge Learning. IEEE Transactions on Network Science and Engineering, 2022, 9, 3258-3271.	6.4	20
3	A Survey on the Use of Preferences for Virtual Machine Placement in Cloud Data Centers. ACM Computing Surveys, 2022, 54, 1-39.	23.0	10
4	Challenges and Countermeasures for Adversarial Attacks on Deep Reinforcement Learning. IEEE Transactions on Artificial Intelligence, 2022, 3, 90-109.	4.7	37
5	The Duo of Artificial Intelligence and Big Data for Industry 4.0: Applications, Techniques, Challenges, and Future Research Directions. IEEE Internet of Things Journal, 2022, 9, 12861-12885.	8.7	50
6	A Survey on Spectrum Management for Unmanned Aerial Vehicles (UAVs). IEEE Access, 2022, 10, 11443-11499.	4.2	29
7	Developing future human-centered smart cities: Critical analysis of smart city security, Data management, and Ethical challenges. Computer Science Review, 2022, 43, 100452.	15.3	62
8	Guest Editorial: Introduction to the Special Section on Advanced Networking Technologies in the Battle Against the Outbreak of Epidemic Diseases. IEEE Transactions on Network Science and Engineering, 2022, 9, 245-246.	6.4	0
9	Global User-Level Perception of COVID-19 Contact Tracing Applications: Data-Driven Approach Using Natural Language Processing. JMIR Formative Research, 2022, 6, e36238.	1.4	3
10	The Frontiers of Deep Reinforcement Learning for Resource Management in Future Wireless HetNets: Techniques, Challenges, and Research Directions. IEEE Open Journal of the Communications Society, 2022, 3, 322-365.	6.9	19
11	Biomedical IoT: Enabling Technologies, Architectural Elements, Challenges, and Future Directions. IEEE Access, 2022, 10, 31306-31339.	4.2	21
12	Visual Sentiment Analysis from Disaster Images in Social Media. Sensors, 2022, 22, 3628.	3.8	14
13	Smart Cities from the Perspective of Systems. Systems, 2022, 10, 77.	2.3	12
14	Tamp-X: Attacking explainable natural language classifiers through tampered activations. Computers and Security, 2022, 120, 102791.	6.0	8
15	The robustness of popular multiclass machine learning models against poisoning attacks: Lessons and insights. International Journal of Distributed Sensor Networks, 2022, 18, 155013292211051.	2.2	2
16	Secure and Robust Machine Learning for Healthcare: A Survey. IEEE Reviews in Biomedical Engineering, 2021, 14, 156-180.	18.0	230
17	Trust-Based Cloud Machine Learning Model Selection for Industrial IoT and Smart City Services. IEEE Internet of Things Journal, 2021, 8, 2943-2958.	8.7	27
18	Active learning for event detection in support of disaster analysis applications. Signal, Image and Video Processing, 2021, 15, 1081-1088.	2.7	5

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19	Analysis of Asymmetric Dual-Hop Energy Harvesting-Based Wireless Communication Systems in Mixed Fading Environments. IEEE Transactions on Green Communications and Networking, 2021, 5, 261-277.	5.5	9
20	Budgeted Online Selection of Candidate IoT Clients to Participate in Federated Learning. IEEE Internet of Things Journal, 2021, 8, 5938-5952.	8.7	42
21	Using the Lens of Systems Thinking To Model Education During and Beyond COVID-19. , 2021, , .		1
22	Threshold-Based Data Exclusion Approach for Energy-Efficient Federated Edge Learning. , 2021, , .		9
23	Intelligent building control systems for thermal comfort and energy-efficiency: A systematic review of artificial intelligence-assisted techniques. Renewable and Sustainable Energy Reviews, 2021, 144, 110969.	16.4	98
24	Editorial: Advances in multi-source information fusion for epidemic diseases. Information Fusion, 2021, 76, 175-176.	19.1	1
25	AI-Based Radio Resource Allocation in Support of the Massive Heterogeneity of 6G Networks. , 2021, , .		9
26	Client Selection Approach in Support of Clustered Federated Learning over Wireless Edge Networks. , 2021, , .		11
27	From Blindness to Foraging to Sensing to Sociality: an Evolutionary Perspective on Cognitive Radio Networks. Mobile Networks and Applications, 2020, 25, 1902-1914.	3.3	2
28	Severity-Based Prioritized Processing of Packets with Application in VANETs. IEEE Transactions on Mobile Computing, 2020, 19, 484-496.	5.8	6
29	The Adversarial Machine Learning Conundrum: Can the Insecurity of ML Become the Achilles' Heel of Cognitive Networks?. IEEE Network, 2020, 34, 196-203.	6.9	21
30	Exploiting Unlabeled Data in Smart Cities using Federated Edge Learning. , 2020, , .		38
31	A Student Primer on How to Thrive in Engineering Education during and beyond COVID-19. Education Sciences, 2020, 10, 236.	2.6	36
32	Active Learning Based Federated Learning for Waste and Natural Disaster Image Classification. IEEE Access, 2020, 8, 208518-208531.	4.2	40
33	Securing Machine Learning in the Cloud: A Systematic Review of Cloud Machine Learning Security. Frontiers in Big Data, 2020, 3, 587139.	2.9	28
34	Opportunistic Selection of Vehicular Data Brokers as Relay Nodes to the Cloud. , 2020, , .		2
35	Intelligent Fusion of Deep Features for Improved Waste Classification. IEEE Access, 2020, 8, 96495-96504.	4.2	52
36	Automating the Configuration of MapReduce: A Reinforcement Learning Scheme. IEEE Transactions on Systems, Man, and Cybernetics: Systems, 2020, 50, 4183-4196.	9.3	7

#	ARTICLE	IF	CITATIONS
37	Securing Connected & Autonomous Vehicles: Challenges Posed by Adversarial Machine Learning and the Way Forward. IEEE Communications Surveys and Tutorials, 2020, 22, 998-1026.	39.4	140
38	Particle Swarm Optimized Federated Learning For Industrial IoT and Smart City Services. , 2020, , .		30
39	PSO and Genetic modeling of Deep Features for Road Passibility Analysis during Floods. IS&T International Symposium on Electronic Imaging, 2020, 32, 270-1-270-6.	0.4	1
40	Black-box Adversarial Machine Learning Attack on Network Traffic Classification. , 2019, , .		19
41	Generative Adversarial Networks For Launching and Thwarting Adversarial Attacks on Network Intrusion Detection Systems. , 2019, , .		81
42	Leveraging Machine Learning and Big Data for Smart Buildings: A Comprehensive Survey. IEEE Access, 2019, 7, 90316-90356.	4.2	125
43	Using hierarchical statistical analysis and deep neural networks to detect covert timing channels. Applied Soft Computing Journal, 2019, 82, 105546.	7.2	19
44	Unsupervised Machine Learning for Networking: Techniques, Applications and Research Challenges. IEEE Access, 2019, 7, 65579-65615.	4.2	206
45	Using phase shift fingerprints and inertial measurements in support of precise localization in urban areas. Personal and Ubiquitous Computing, 2019, 23, 861-872.	2.8	4
46	Unmanned Aerial Vehicles (UAVs): A Survey on Civil Applications and Key Research Challenges. IEEE Access, 2019, 7, 48572-48634.	4.2	1,221
47	A survey on particle swarm optimization with emphasis on engineering and network applications. Evolutionary Intelligence, 2019, 12, 113-129.	3.6	107
48	Adversarial Machine Learning Attack on Modulation Classification. , 2019, , .		9
49	Opportunistic Data Ferrying in Areas with Limited Information and Communications Infrastructure. , 2019, , .		1
50	Blockchain for AI: Review and Open Research Challenges. IEEE Access, 2019, 7, 10127-10149.	4.2	596
51	Online Algorithm for Opportunistic Handling of Received Packets in Vehicular Networks. IEEE Transactions on Intelligent Transportation Systems, 2019, 20, 285-296.	8.0	5
52	Sentiment Analysis from Images of Natural Disasters. Lecture Notes in Computer Science, 2019, , 104-113.	1.3	14
53	Evolutionary Game Theory Perspective on Dynamic Spectrum Access Etiquette. IEEE Access, 2018, 6, 13142-13157.	4.2	15
54	Enabling Cognitive Smart Cities Using Big Data and Machine Learning: Approaches and Challenges. , 2018, 56, 94-101.		259

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55	Adaptive Security for Intelligent Transport System Applications. IEEE Intelligent Transportation Systems Magazine, 2018, 10, 110-120.	3.8	22
56	Robust Insider Attacks Countermeasure for Hadoop: Design and Implementation. IEEE Systems Journal, 2018, 12, 1874-1885.	4.6	15
57	Semisupervised Deep Reinforcement Learning in Support of IoT and Smart City Services. IEEE Internet of Things Journal, 2018, 5, 624-635.	8.7	293
58	Exploiting the Spatio-Temporal Patterns in IoT Data to Establish a Dynamic Ensemble of Distributed Learners. IEEE Access, 2018, 6, 63316-63328.	4.2	1
59	Adversarial Attacks on Cognitive Self-Organizing Networks: The Challenge and the Way Forward. , 2018, , .		13
60	Path Planning in Support of Smart Mobility Applications Using Generative Adversarial Networks. , 2018, , .		9
61	Towards a Streaming Approach to the Mitigation of Covert Timing Channels. , 2018, , .		2
62	SDN Flow Entry Management Using Reinforcement Learning. ACM Transactions on Autonomous and Adaptive Systems, 2018, 13, 1-23.	0.8	35
63	Emergence of pecking order in social Cognitive Radio societies. , 2018, , .		0
64	From Channel Selection to Strategy Selection: Enhancing VANETs Using Socially-Inspired Foraging and Deference Strategies. IEEE Transactions on Vehicular Technology, 2018, 67, 8919-8933.	6.3	8
65	Deep Learning for IoT Big Data and Streaming Analytics: A Survey. IEEE Communications Surveys and Tutorials, 2018, 20, 2923-2960.	39.4	905
66	Optimizing an artificial immune system algorithm in support of flow-Based internet traffic classification. Applied Soft Computing Journal, 2017, 54, 1-22.	7.2	24
67	Systematization of Knowledge (SoK): A Systematic Review of Software-Based Web Phishing Detection. IEEE Communications Surveys and Tutorials, 2017, 19, 2797-2819.	39.4	64
68	Parameters optimization of deep learning models using Particle swarm optimization. , 2017, , .		70
69	Smart Cities: A Survey on Data Management, Security, and Enabling Technologies. IEEE Communications Surveys and Tutorials, 2017, 19, 2456-2501.	39.4	383
70	Online Auction of Cloud Resources in Support of the Internet of Things. IEEE Internet of Things Journal, 2017, 4, 1583-1596.	8.7	23
71	Evolution of bio-socially inspired strategies in support of dynamic spectrum access. , 2017, , .		1
72	Softwarization of Internet of Things Infrastructure for Secure and Smart Healthcare. Computer, 2017, 50, 74-79.	1.1	91

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73	Role of Deep LSTM Neural Networks and Wi-Fi Networks in Support of Occupancy Prediction in Smart Buildings. , 2017, , .		25
74	Managing a cluster of IoT brokers in support of smart city applications. , 2017, , .		6
75	Using MapReduce and hierarchical entropy analysis to speed-up the detection of covert timing channels. , 2017, , .		4
76	When brands fight over bands: Sociality in the cognitive radio ecosystem. , 2017, , .		1
77	Secure Plug-in Electric Vehicle (PEV) Charging in a Smart Grid Network. Energies, 2017, 10, 1024.	3.1	9
78	A new approach to optimized negative selection. , 2016, , .		0
79	Empowering networking research and experimentation through Software-Defined Networking. Journal of Network and Computer Applications, 2016, 70, 140-155.	9.1	11
80	Reinforcement learning for resource provisioning in the vehicular cloud. IEEE Wireless Communications, 2016, 23, 128-135.	9.0	78
81	Social deference and hunger as mechanisms for starvation avoidance in cognitive radio societies. , 2016, , .		6
82	Optimization of power and migration cost in virtualized data centers. , 2016, , .		4
83	Internet of Things: A Survey on Enabling Technologies, Protocols, and Applications. IEEE Communications Surveys and Tutorials, 2015, 17, 2347-2376.	39.4	5,614
84	Toward better horizontal integration among IoT services. , 2015, 53, 72-79.		141
85	The role of hierarchical entropy analysis in the detection and time-scale determination of covert timing channels. , 2015, , .		6
86	Exploiting Client-Side Collected Measurements to Perform QoS Assessment of IaaS. IEEE Transactions on Mobile Computing, 2015, 14, 1876-1887.	5.8	9
87	Software-Defined Networking for RSU Clouds in Support of the Internet of Vehicles. IEEE Internet of Things Journal, 2015, 2, 133-144.	8.7	184
88	Artificial Immune System Inspired Algorithm for Flow-Based Internet Traffic Classification. , 2014, , .		3
89	A Biologically-Inspired Approach to Network Traffic Classification for Resource-Constrained Systems. , 2014, , .		1
90	RSU cloud and its resource management in support of enhanced vehicular applications. , 2014, , .		30

#	ARTICLE	IF	CITATIONS
91	Cloud-based autonomic service monitoring for Future Internet. , 2014, , .		0
92	Exploiting Context Severity to Achieve Opportunistic Service Differentiation in Vehicular Ad hoc Networks. IEEE Transactions on Vehicular Technology, 2014, 63, 2901-2915.	6.3	10
93	Distributed topology control in large-scale hybrid RF/FSO networks: SIMT GPU-based particle swarm optimization approach. International Journal of Communication Systems, 2013, 26, 888-911.	2.5	10
94	Energy efficient cross-layer routing protocol in Wireless Sensor Networks based on fuzzy logic. , 2013, , .		22
95	Towards a client-side QoS monitoring and assessment using Generalized Pareto Distribution in a cloud-based environment. , 2013, , .		4
96	Design of a Social Collaboration and Precise Localization Services for the Blind and Visually Impaired. Procedia Computer Science, 2013, 21, 282-291.	2.0	13
97	Optimizing agent placement for flow reconstruction of DDoS attacks. , 2013, , .		0
98	Context severity based opportunistic service reprioritization for IEEE 802.11p VANETs. , 2013, , .		1
99	Efficient failure prediction in autonomic networks based on trend and frequency analysis of anomalous patterns. International Journal of Network Management, 2013, 23, 186-213.	2.2	5
100	Towards extended safety in connected vehicles. , 2013, , .		19
101	An intelligent data fusion technique based on the particle filter to perform precise outdoor localization. International Journal of Pervasive Computing and Communications, 2013, 9, 163-183.	1.3	12
102	A Precise Indoor Localization Approach based on Particle Filter and Dynamic Exclusion Techniques. Network Protocols and Algorithms, 2013, 5, 50.	1.0	18
103	A client-based QoS approach using generalized extreme value theorem in multi-hop network environments. , 2012, , .		1
104	Opportunistic service promotion for end-to-end delay minimization in IEEE 802.11p vehicular networks. , 2012, , .		0
105	Client-based QoS data selection and modeling using generalized extreme value theorem and linear opinion pool. , 2012, , .		1
106	Two novel learning algorithms to solve the spectrum sharing problem in cognitive radio networks. , 2012, , .		4
107	Gyroscope drift correction based on TDoA technology in support of Pedestrian Dead Reckoning. , 2012, , .		12
108	Topology Control Schema for Better QoS in Hybrid RF/FSO Mesh Networks. IEEE Transactions on Communications, 2012, 60, 1398-1406.	7.8	22

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109	An efficient artificial landmark-based system for indoor and outdoor identification and localization. , 2011, , .		4
110	Client-side architecture for mobile service QoS monitoring using Generalized Extreme Value theorem. , 2011, , .		6
111	Failure Prediction based on multi-parameter analysis in support of autonomic networks. , 2011, , .		1
112	Prediction of performance degradation in telecommunication networks using Joint Clustering and association analysis techniques. , 2010, , .		4
113	Failure Prediction Based on Multi-Scale Frequent Anomalous Behavior Identification in Support of Autonomic Networks. , 2010, , .		3
114	A genetic approach for trajectory planning in non-autonomous Mobile Ad-Hoc Networks with QoS requirements. , 2010, , .		11
115	Using connection expansion to reduce control traffic in MANETs. , 2010, , .		1
116	Reconstruction of malicious internet flows. , 2010, , .		2
117	Only the short die old. , 2010, , .		3
118	A New Hierarchical and Adaptive Protocol for Minimum-Delay V2V Communication. , 2009, , .		8
119	Intelligent Service Monitoring and Support. , 2009, , .		2
120	On Efficient Network Planning and Routing in Large-Scale MANETs. IEEE Transactions on Vehicular Technology, 2009, 58, 3796-3801.	6.3	18
121	Lagrangean relaxation for service location in large-scale networks with QoS constraints. Wireless Communications and Mobile Computing, 2009, 9, 1668-1682.	1.2	0
122	Bayesian-Based Game Theoretic Model to Guarantee Cooperativeness in Hybrid RF/FSO Mesh Networks. , 2009, , .		3
123	Opportunistic Channel Selection Strategy for Better QoS in Cooperative Networks with Cognitive Radio Capabilities. IEEE Journal on Selected Areas in Communications, 2008, 26, 156-167.	14.0	41
124	A new generic model for signal propagation in Wi-Fi and WiMAX environments. , 2008, , .		14
125	Using Lagrangean Relaxation for Service Location Planning with QoS Constraints in Large-Scale Networks. , 2008, , .		3
126	A Model for Cooperative Mobility and Budgeted QoS in MANETs with Heterogenous Autonomy Requirements. , 2008, , .		4

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127	A new fuzzy-based cooperative movement model in support of qos in wireless ad-hoc network. , 2007, , .		1
128	A service location problem with QoS constraints. , 2007, , .		7
129	Multigrid techniques for movement planning in manets with cooperative mobility. , 2007, , .		0
130	Using MILP for Optimal Movement Planning in MANETs with Cooperative Mobility. , 2007, , .		0
131	Mobility Support for Geo-Encryption. , 2007, , .		5
132	Performance of WDM Mesh Networks with Limited Traffic Grooming Resources. , 2007, , .		2
133	Detection of Masquerade Attacks on Wireless Sensor Networks. , 2007, , .		14
134	Traffic grooming, routing, and wavelength assignment in WDM transport networks with sparse grooming resources. Computer Communications, 2007, 30, 3508-3524.	5.1	13
135	Geo-encryption protocol for mobile networks. Computer Communications, 2007, 30, 2510-2517.	5.1	18
136	Surrendering Autonomy: Can Cooperative Mobility Help?. Lecture Notes in Computer Science, 2007, , 901-910.	1.3	0
137	A Fuzzy-Based Hierarchical Energy Efficient Routing Protocol for Large Scale Mobile Ad Hoc Networks (FEER). , 2006, , .		19
138	Genetic Approach for Traffic Grooming, Routing, and Wavelength Assignment in WDM Optical Networks with Sparse Grooming Resources. , 2006, , .		12
139	Using Energy-Efficient Overlays to Reduce Packet Error Rates in Wireless Ad-Hoc Networks. , 2006, , .		7
140	Optimal hierarchical energy efficient design for MANETs. , 2006, , .		5
141	NIS02-5: Constructing an Efficient Mobility Profile of Ad-Hoc Node for Mobility-Pattern-Based Anomaly Detection in MANET. IEEE Global Telecommunications Conference (GLOBECOM), 2006, , .	0.0	5
142	WSN14-6: Minimizing Wireless Connection BER through the Dynamic Distribution of Budgeted Power. IEEE Global Telecommunications Conference (GLOBECOM), 2006, , .	0.0	4
143	WSN07-2: Harnessing the Parity of Multiple Errors in End-to-End MAC Schemes. IEEE Global Telecommunications Conference (GLOBECOM), 2006, , .	0.0	0
144	Routing Framework for All-Optical DWDM Metro and Long-Haul Transport Networks With Sparse Wavelength Conversion Capabilities. IEEE Journal on Selected Areas in Communications, 2004, 22, 1443-1459.	14.0	14

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145	Design and Simulation of a New Queuing Architecture for Large-Scale ATM Switches. Simulation, 2002, 78, 431-446.	1.8	0
146	A new queuing strategy for large scale ATM switches. , 2001, 39, 142-146.		7
147	New multiprotocol WDM/CDMA-based optical switch architecture. , 0, , .		4
148	Outcome-based (Engineering) Education (OBE): International Accreditation Practices. , 0, , .		4
149	Leveraging the Force of Formative Assessment and Feedback for Effective Engineering Education. , 0, , .		5