Aiman Erbad

List of Publications by Year
in descending order

141 papers	3,340 citations
279798 23 h-index	197818 49 g-index
149 all docs	149 docs citations
149 times ranked	2795 citing authors

#	Article	IF	Citations
1	Security Services Using Blockchains: A State of the Art Survey. IEEE Communications Surveys and Tutorials, 2019, 21, 858-880.	39.4	294
2	Potentials, trends, and prospects in edge technologies: Fog, cloudlet, mobile edge, and micro data centers. Computer Networks, 2018, 130, 94-120.	5.1	235
3	A survey on service function chaining. Journal of Network and Computer Applications, 2016, 75, 138-155.	9.1	226
4	Optimal virtual network function placement in multi-cloud service function chaining architecture. Computer Communications, 2017, 102, 1-16.	5.1	161
5	Edge Computing for Smart Health: Context-Aware Approaches, Opportunities, and Challenges. IEEE Network, 2019, 33, 196-203.	6.9	160
6	RF-based drone detection and identification using deep learning approaches: An initiative towards a large open source drone database. Future Generation Computer Systems, 2019, 100, 86-97.	7.5	144
7	Cybersecurity for industrial control systems: A survey. Computers and Security, 2020, 89, 101677.	6.0	133
8	ssHealth: Toward Secure, Blockchain-Enabled Healthcare Systems. IEEE Network, 2020, 34, 312-319.	6.9	82
9	MEdge-Chain: Leveraging Edge Computing and Blockchain for Efficient Medical Data Exchange. IEEE Internet of Things Journal, 2021, 8, 15762-15775.	8.7	75
10	Edge computing for interactive media and video streaming. , 2017, , .		69
11	DroneRF dataset: A dataset of drones for RF-based detection, classification and identification. Data in Brief, 2019, 26, 104313.	1.0	68
12	Machine Learning for Anomaly Detection and Categorization in Multi-Cloud Environments. , 2017, , .		63
13	TIDCS: A Dynamic Intrusion Detection and Classification System Based Feature Selection. IEEE Access, 2020, 8, 95864-95877.	4.2	50
14	Optimal User-Edge Assignment in Hierarchical Federated Learning Based on Statistical Properties and Network Topology Constraints. IEEE Transactions on Network Science and Engineering, 2022, 9, 55-66.	6.4	50
15	Feasibility of Supervised Machine Learning for Cloud Security. , 2016, , .		48
16	Communication-efficient hierarchical federated learning for IoT heterogeneous systems with imbalanced data. Future Generation Computer Systems, 2022, 128, 406-419.	7.5	45
17	Blockchain technologies to mitigate COVID-19 challenges: A scoping review. Computer Methods and Programs in Biomedicine Update, 2021, 1, 100001.	3.7	42
18	Machine Learning Techniques for Network Anomaly Detection: A Survey. , 2020, , .		40

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19	Deanonymizing Tor hidden service users through Bitcoin transactions analysis. Computers and Security, 2020, 89, 101684.	6.0	39
20	Clouds + Games: A Multifaceted Approach. IEEE Internet Computing, 2014, 18, 20-27.	3.3	34
21	Efficient virtual network function placement strategies for Cloud Radio Access Networks. Computer Communications, 2018, 127, 50-60.	5.1	34
22	Multi-objective scheduling of micro-services for optimal service function chains. , 2017, , .		33
23	Collaborative joint caching and transcoding in mobile edge networks. Journal of Network and Computer Applications, 2019, 136, 86-99.	9.1	33
24	MAGIC Broker: A Middleware Toolkit for Interactive Public Displays. , 2008, , .		32
25	Multi-cloud Distribution of Virtual Functions and Dynamic Service Deployment: Open ADN Perspective. , 2015, , .		32
26	Performance Evaluation of Hyperledger Fabric. , 2020, , .		32
27	Hierarchical Security Paradigm for IoT Multiaccess Edge Computing. IEEE Internet of Things Journal, 2021, 8, 5794-5805.	8.7	31
28	A Survey on Recent Approaches in Intrusion Detection System in IoTs. , 2019, , .		30
29	Sender-side buffers and the case for multimedia adaptation. Communications of the ACM, 2012, 55, 50-58.	4.5	29
30	Crowdsourced Multi-View Live Video Streaming using Cloud Computing. IEEE Access, 2017, 5, 12635-12647.	4.2	28
31	Hybrid Machine Learning for Network Anomaly Intrusion Detection. , 2020, , .		28
32	Privacy-Preserving Distributed IDS Using Incremental Learning for IoT Health Systems. IEEE Access, 2021, 9, 14271-14283.	4.2	27
33	Important Complexity Reduction of Random Forest in Multi-Classification Problem. , 2019, , .		26
34	PCCP: Proactive Video Chunks Caching and Processing in edge networks. Future Generation Computer Systems, 2020, 105, 44-60.	7.5	26
35	Convolutional Autoencoder Approach for EEG Compression and Reconstruction in m-Health Systems. , 2018, , .		25
36	COLAP: A predictive framework for service function chain placement in a multi-cloud environment. , 2017, , .		24

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37	A Combined Decision for Secure Cloud Computing Based on Machine Learning and Past Information. , 2019, , .		23
38	Cryptocurrencies and Artificial Intelligence: Challenges and Opportunities. IEEE Access, 2020, 8, 175840-175858.	4.2	23
39	LoRa-RL: Deep Reinforcement Learning for Resource Management in Hybrid Energy LoRa Wireless Networks. IEEE Internet of Things Journal, 2022, 9, 6458-6476.	8.7	23
40	Traffic Analysis Attacks on Tor: A Survey. , 2020, , .		23
41	FEDGAN-IDS: Privacy-preserving IDS using GAN and Federated Learning. Computer Communications, 2022, 192, 299-310.	5.1	23
42	The P-ART framework for placement of virtual network services in a multi-cloud environment. Computer Communications, 2019, 139, 103-122.	5.1	21
43	To chain or not to chain: A reinforcement learning approach for blockchain-enabled IoT monitoring applications. Future Generation Computer Systems, 2020, 111, 39-51.	7.5	21
44	Distributed CNN Inference on Resource-Constrained UAVs for Surveillance Systems: Design and Optimization. IEEE Internet of Things Journal, 2022, 9, 1227-1242.	8.7	21
45	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
46	Impact of Multiple Video Representations in Live Streaming: A Cost, Bandwidth, and QoE Analysis. , 2017, , .		18
47	Towards development of a tele‐mentoring framework for minimally invasive surgeries. International Journal of Medical Robotics and Computer Assisted Surgery, 2021, 17, e2305.	2.3	17
48	Deep Reinforcement Learning for Network Selection Over Heterogeneous Health Systems. IEEE Transactions on Network Science and Engineering, 2022, 9, 258-270.	6.4	17
49	Exploring microservices for enhancing internet QoS. Transactions on Emerging Telecommunications Technologies, 2018, 29, e3445.	3.9	16
50	Hierarchical Federated Learning for Collaborative IDS in IoT Applications. , 2021, , .		16
51	Emotion Recognition for Healthcare Surveillance Systems Using Neural Networks: A Survey. , 2021, , .		16
52	Reinforcement learning approaches for efficient and secure blockchain-powered smart health systems. Computer Networks, 2021, 197, 108279.	5.1	16
53	Fault and performance management in multi-cloud virtual network services using AI: A tutorial and a case study. Computer Networks, 2019, 165, 106950.	5.1	15
54	Green data center networks: a holistic survey and design guidelines. , 2019, , .		14

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55	Supervised Machine Learning Techniques for Efficient Network Intrusion Detection. , 2019, , .		14
56	Preliminary design and evaluation of a remote tele-mentoring system for minimally invasive surgery. Surgical Endoscopy and Other Interventional Techniques, 2022, 36, 3663-3674.	2.4	14
57	SAIS. , 2014, , .		13
58	QoE-Aware Resource Allocation for Crowdsourced Live Streaming: A Machine Learning Approach. , 2019, , .		13
59	FacebookVideoLive18: A Live Video Streaming Dataset for Streams Metadata and Online Viewers Locations. , 2020, , .		13
60	Collaborative hierarchical caching and transcoding in edge network with CE-D2D communication. Journal of Network and Computer Applications, 2020, 172, 102801.	9.1	13
61	Active Learning With Noisy Labelers for Improving Classification Accuracy of Connected Vehicles. IEEE Transactions on Vehicular Technology, 2021, 70, 3059-3070.	6.3	13
62	Proactive Video Chunks Caching and Processing for Latency and Cost Minimization in Edge Networks. , 2019, , .		12
63	Edge computing for energy-efficient smart health systems. , 2020, , 53-67.		12
64	Guest Editorial: Blockchain Envisioned Drones: Realizing 5G-Enabled Flying Automation. IEEE Network, 2021, 35, 16-19.	6.9	12
65	Multi-Agent Reinforcement Learning for Network Selection and Resource Allocation in Heterogeneous Multi-RAT Networks. IEEE Transactions on Cognitive Communications and Networking, 2022, 8, 1287-1300.	7.9	12
66	CE-D2D: Dual Framework Chunks Caching and offloading in Collaborative Edge networks with D2D communication. , 2019, , .		11
67	Machine Learning Based Cloud Computing Anomalies Detection. IEEE Network, 2020, 34, 178-183.	6.9	11
68	A Weighted Machine Learning-Based Attacks Classification to Alleviating Class Imbalance. IEEE Systems Journal, 2021, 15, 4780-4791.	4.6	11
69	Client Selection Approach in Support of Clustered Federated Learning over Wireless Edge Networks. , 2021, , .		11
70	Efficient EEG Mobile Edge Computing and Optimal Resource Allocation for Smart Health Applications. , 2019, , .		10
71	RL-OPRA: Reinforcement Learning for Online and Proactive Resource Allocation of crowdsourced live videos. Future Generation Computer Systems, 2020, 112, 982-995.	7.5	10
72	On Designing Smart Agents for Service Provisioning in Blockchain-Powered Systems. IEEE Transactions on Network Science and Engineering, 2022, 9, 401-415.	6.4	10

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73	Fuzzy Elliptic Curve Cryptography for Authentication in Internet of Things Journal, 2022, 9, 9987-9998.	8.7	10
74	Addressing Challenges of Distance Learning in the Pandemic with Edge Intelligence Enabled Multicast and Caching Solution. Sensors, 2022, 22, 1092.	3.8	10
75	Paceline. , 2010, , .		9
76	Nutshellâ€"Simulation Toolkit for Modeling Data Center Networks and Cloud Computing. IEEE Access, 2019, 7, 19922-19942.	4.2	9
77	Multicast at Edge: An Edge Network Architecture for Service-Less Crowdsourced Live Video Multicast. IEEE Access, 2021, 9, 59508-59526.	4.2	9
78	An Intelligent Resource Reservation for Crowdsourced Live Video Streaming Applications in Geo-Distributed Cloud Environment. IEEE Systems Journal, 2022, 16, 240-251.	4.6	9
79	QuicTor: Enhancing Tor for Real-Time Communication Using QUIC Transport Protocol. IEEE Access, 2021, 9, 28769-28784.	4.2	9
80	Efficient Real-Time Image Recognition Using Collaborative Swarm of UAVs and Convolutional Networks. , 2021, , .		9
81	Threshold-Based Data Exclusion Approach for Energy-Efficient Federated Edge Learning. , 2021, , .		9
82	DistPrivacy: Privacy-Aware Distributed Deep Neural Networks in IoT surveillance systems. , 2020, , .		9
83	Dynamic Network Slicing and Resource Allocation for 5G-and-Beyond Networks. , 2022, , .		9
84	DOHA. , 2012, , .		8
85	Empirical Performance Evaluation of QUIC Protocol for Tor Anonymity Network. , 2019, , .		8
86	Anonymity and Privacy in Bitcoin Escrow Trades. , 2019, , .		8
87	Service-Less Video Multicast in 5G: Enablers and Challenges. IEEE Network, 2020, 34, 270-276.	6.9	8
88	CE-D2D: Collaborative and Popularity-aware Proactive Chunks Caching in Edge Networks. , 2020, , .		7
89	Weighted Trustworthiness for ML Based Attacks Classification. , 2020, , .		7
90	I-SEE: Intelligent, Secure, and Energy-Efficient Techniques for Medical Data Transmission Using Deep Reinforcement Learning. IEEE Internet of Things Journal, 2021, 8, 6454-6468.	8.7	7

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91	Fault and performance management in multi-cloud based NFV using shallow and deep predictive structures. Journal of Reliable Intelligent Environments, 2017, 3, 221-231.	5.2	6
92	Transcoding Resources Forecasting and Reservation for Crowdsourced Live Streaming. , 2019, , .		6
93	RL-DistPrivacy: Privacy-Aware Distributed Deep Inference for Low Latency IoT Systems. IEEE Transactions on Network Science and Engineering, 2022, 9, 2066-2083.	6.4	6
94	Robustness quantification of hierarchical complex networks under targeted failures. Computers and Electrical Engineering, 2018, 72, 112-124.	4.8	5
95	Smart Edge Healthcare Data Sharing System. , 2020, , .		5
96	Blockchain Based Decentralized Trust Management framework. , 2020, , .		5
97	RL-PDNN: Reinforcement Learning for Privacy-Aware Distributed Neural Networks in IoT Systems. IEEE Access, 2021, 9, 54872-54887.	4.2	5
98	Federated Learning for UAV Swarms Under Class Imbalance and Power Consumption Constraints. , 2021, , .		5
99	Sender-side Buffers and the Case for Multimedia Adaptation. Queue, 2012, 10, 10-24.	1.1	4
100	AI-based techniques on edge devices to optimize energy efficiency in m-Health applications. , 2020, , 1-23.		4
101	Navigation and Obstacle Avoidance System in Unknown Environment. , 2020, , .		4
102	Service Chaining for NFV and Delivery of Other Applications in a Global Multi-cloud Environment. , 2015, , .		3
103	HYPER-VINES: A HYbrid Learning Fault and Performance Issues ERadicator for Virtual NEtwork Services over Multi-Cloud Systems. , 2019, , .		3
104	3-D Stochastic Geometry-Based Modeling and Performance Analysis of Efficient Security Enhancement Scheme for IoT Systems. IEEE Internet of Things Journal, 2022, 9, 6663-6677.	8.7	3
105	Cooperative Machine Learning Techniques for Cloud Intrusion Detection. , 2021, , .		3
106	ONSRA: an Optimal Network Selection and Resource Allocation Framework in multi-RAT Systems. , 2021, , .		3
107	Fault and Performance Management in Multi-Cloud Based NFV Using Shallow and Deep Predictive Structures. , 2017, , .		2
108	Iterative Per Group Feature Selection For Intrusion Detection. , 2020, , .		2

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109	Survey of Immersive Techniques for Surgical Care Telemedicine Applications. , 2021, , .		2
110	UAVs Smart heuristics for Target Coverage and Path Planning Through Strategic Locations. , 2021, , .		2
111	Key Generation Based Fuzzy Logic and Elliptic Curve Cryptography for Internet of Things (IoT) Authentication. , 2020, , .		2
112	Performance Analysis of IoT Physical layer Security Using 3-D Stochastic Geometry. , 2020, , .		2
113	B5G: Predictive Container Auto-Scaling for Cellular Evolved Packet Core. IEEE Access, 2021, 9, 158204-158214.	4.2	2
114	Smart and Secure Blockchain-based Healthcare System Using Deep Q-Learning. , 2021, , .		2
115	Hierarchical Federated Learning over HetNets enabled by Wireless Energy Transfer. , 2021, , .		2
116	QUTor: QUIC-based Transport Architecture for Anonymous Communication Overlay Networks. , 2016, , .		1
117	Automated service delivery platform for C-RANs. , 2017, , .		1
118	EEG-based Analysis Study for Patients Receiving Intravenous Antibiotic Medication. , 2020, , .		1
119	Smart Health Monitoring for Seizure Detection using Mobile Edge Computing. , 2020, , .		1
120	B5G: Predictive Container Auto-Scaling for Cellular Evolved Packet Core. , 2021, , .		1
121	Data Augmentation for Intrusion Detection and Classification in Cloud Networks. , 2021, , .		1
122	Proportionally Fair approach for Tor's Circuits Scheduling. , 2020, , .		1
123	Energy-Efficient Device Assignment and Task Allocation in Multi-Orchestrator Mobile Edge Learning. , 2021, , .		1
124	Reinforcement Learning for Hybrid Energy LoRa Wireless Networks. , 2021, , .		1
125	Security Performance Analysis of a Health System using Hybrid NOMA-OMA based IoT System. , 2021, , .		1
126	Video transcoding at the edge: cost and feasibility perspective. Cluster Computing, 2023, 26, 157-180.	5.0	1

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127	PLS Performance Analysis of a Hybrid NOMA-OMA based IoT System with Mobile Sensors. , 2022, , .		1
128	A Hybrid Framework to Program Smart Environments. , 2007, , .		0
129	Towards an Ontology-driven Game-based Educational platform with Automatic Student Monitoring. , 2015, , .		0
130	Compress or Interfere?. , 2019, , .		0
131	Energy-Efficient Networks Selection Based Deep Reinforcement Learning for Heterogeneous Health Systems. , 2021, , .		0
132	Rational Contracts: Data-driven Service Provisioning in Blockchain-powered Systems. , 2021, , .		0
133	Machine Learning Screening of COVID-19 Patients Based on X-ray Images for Imbalanced Classes. , 2021, , .		0
134	CAE Adaptive Compression, Transmission Energy and Cost Optimization for m-Health Systems. , 2021, , .		0
135	Machine learning screening of COVID-19 patients based on X-ray images for unbalanced classes. Journal of Emergency Medicine, Trauma and Acute Care, 2021, 2021, .	0.1	0
136	Performance Analysis of PLS key generation-based Secure NOMA-enabled IoT Networks in the presence of Untrusted Users. , 2021, , .		0
137	A Robust Protocol for Smart eHealthcare based on Elliptic Curve Cryptography and Fuzzy logic in IoT. , 2021, , .		0
138	Patient-Driven Network Selection in multi-RAT Health Systems Using Deep Reinforcement Learning. , 2021, , .		0
139	RLENS: RL-based Energy-Efficient Network Selection Framework for IoMT. , 2022, , .		0
140	Dynamic LoRa Wireless Networks Powered by Hybrid Energy. , 2022, , .		0
141	QDRL: QoS-Aware Deep Reinforcement Learning Approach for Tor's Circuit Scheduling. IEEE Transactions on Network Science and Engineering, 2022, 9, 3396-3410.	6.4	0