

Aiman Erbad

List of Publications by Year in descending order

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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	Video transcoding at the edge: cost and feasibility perspective. Cluster Computing, 2023, 26, 157-180.	5.0	1
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	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
4	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
5	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
6	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
7	Deep Reinforcement Learning for Network Selection Over Heterogeneous Health Systems. IEEE Transactions on Network Science and Engineering, 2022, 9, 258-270.	6.4	17
8	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
9	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
10	Communication-efficient hierarchical federated learning for IoT heterogeneous systems with imbalanced data. Future Generation Computer Systems, 2022, 128, 406-419.	7.5	45
11	Fuzzy Elliptic Curve Cryptography for Authentication in Internet of Things. IEEE Internet of Things Journal, 2022, 9, 9987-9998.	8.7	10
12	Addressing Challenges of Distance Learning in the Pandemic with Edge Intelligence Enabled Multicast and Caching Solution. Sensors, 2022, 22, 1092.	3.8	10
13	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
14	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
15	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
16	RLENS: RL-based Energy-Efficient Network Selection Framework for IoMT. , 2022, , .		0
17	PLS Performance Analysis of a Hybrid NOMA-OMA based IoT System with Mobile Sensors. , 2022, , .		1
18	Dynamic Network Slicing and Resource Allocation for 5G-and-Beyond Networks. , 2022, , .		9

#	ARTICLE	IF	CITATIONS
19	Dynamic LoRa Wireless Networks Powered by Hybrid Energy. , 2022, , .		0
20	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
21	FEDGAN-IDS: Privacy-preserving IDS using GAN and Federated Learning. Computer Communications, 2022, 192, 299-310.	5.1	23
22	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
23	A Weighted Machine Learning-Based Attacks Classification to Alleviating Class Imbalance. IEEE Systems Journal, 2021, 15, 4780-4791.	4.6	11
24	Blockchain technologies to mitigate COVID-19 challenges: A scoping review. Computer Methods and Programs in Biomedicine Update, 2021, 1, 100001.	3.7	42
25	Guest Editorial: Blockchain Envisioned Drones: Realizing 5G-Enabled Flying Automation. IEEE Network, 2021, 35, 16-19.	6.9	12
26	Multicast at Edge: An Edge Network Architecture for Service-Less Crowdsourced Live Video Multicast. IEEE Access, 2021, 9, 59508-59526.	4.2	9
27	Privacy-Preserving Distributed IDS Using Incremental Learning for IoT Health Systems. IEEE Access, 2021, 9, 14271-14283.	4.2	27
28	RL-PDNN: Reinforcement Learning for Privacy-Aware Distributed Neural Networks in IoT Systems. IEEE Access, 2021, 9, 54872-54887.	4.2	5
29	QuicTor: Enhancing Tor for Real-Time Communication Using QUIC Transport Protocol. IEEE Access, 2021, 9, 28769-28784.	4.2	9
30	Energy-Efficient Networks Selection Based Deep Reinforcement Learning for Heterogeneous Health Systems. , 2021, , .		0
31	Active Learning With Noisy Labelers for Improving Classification Accuracy of Connected Vehicles. IEEE Transactions on Vehicular Technology, 2021, 70, 3059-3070.	6.3	13
32	Hierarchical Security Paradigm for IoT Multiaccess Edge Computing. IEEE Internet of Things Journal, 2021, 8, 5794-5805.	8.7	31
33	Survey of Immersive Techniques for Surgical Care Telemedicine Applications. , 2021, , .		2
34	Efficient Real-Time Image Recognition Using Collaborative Swarm of UAVs and Convolutional Networks. , 2021, , .		9
35	Rational Contracts: Data-driven Service Provisioning in Blockchain-powered Systems. , 2021, , .		0
36	Cooperative Machine Learning Techniques for Cloud Intrusion Detection. , 2021, , .		3

#	ARTICLE	IF	CITATIONS
37	Hierarchical Federated Learning for Collaborative IDS in IoT Applications. , 2021, , .		16
38	B5G: Predictive Container Auto-Scaling for Cellular Evolved Packet Core. , 2021, , .		1
39	Threshold-Based Data Exclusion Approach for Energy-Efficient Federated Edge Learning. , 2021, , .		9
40	Data Augmentation for Intrusion Detection and Classification in Cloud Networks. , 2021, , .		1
41	Machine Learning Screening of COVID-19 Patients Based on X-ray Images for Imbalanced Classes. , 2021, , .		0
42	CAE Adaptive Compression, Transmission Energy and Cost Optimization for m-Health Systems. , 2021, , .		0
43	ONRA: an Optimal Network Selection and Resource Allocation Framework in multi-RAT Systems. , 2021, , .		3
44	UAVs Smart heuristics for Target Coverage and Path Planning Through Strategic Locations. , 2021, , .		2
45	Emotion Recognition for Healthcare Surveillance Systems Using Neural Networks: A Survey. , 2021, , .		16
46	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
47	Reinforcement learning approaches for efficient and secure blockchain-powered smart health systems. Computer Networks, 2021, 197, 108279.	5.1	16
48	MEdge-Chain: Leveraging Edge Computing and Blockchain for Efficient Medical Data Exchange. IEEE Internet of Things Journal, 2021, 8, 15762-15775.	8.7	75
49	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
50	Performance Analysis of PLS key generation-based Secure NOMA-enabled IoT Networks in the presence of Untrusted Users. , 2021, , .		0
51	B5G: Predictive Container Auto-Scaling for Cellular Evolved Packet Core. IEEE Access, 2021, 9, 158204-158214.	4.2	2
52	Smart and Secure Blockchain-based Healthcare System Using Deep Q-Learning. , 2021, , .		2
53	Energy-Efficient Device Assignment and Task Allocation in Multi-Orchestrator Mobile Edge Learning. , 2021, , .		1
54	Federated Learning for UAV Swarms Under Class Imbalance and Power Consumption Constraints. , 2021, , .		5

#	ARTICLE	IF	CITATIONS
55	Reinforcement Learning for Hybrid Energy LoRa Wireless Networks. , 2021, , .		1
56	Hierarchical Federated Learning over HetNets enabled by Wireless Energy Transfer. , 2021, , .		2
57	Security Performance Analysis of a Health System using Hybrid NOMA-OMA based IoT System. , 2021, , .		1
58	Client Selection Approach in Support of Clustered Federated Learning over Wireless Edge Networks. , 2021, , .		11
59	A Robust Protocol for Smart eHealthcare based on Elliptic Curve Cryptography and Fuzzy logic in IoT. , 2021, , .		0
60	Patient-Driven Network Selection in multi-RAT Health Systems Using Deep Reinforcement Learning. , 2021, , .		0
61	PCCP: Proactive Video Chunks Caching and Processing in edge networks. Future Generation Computer Systems, 2020, 105, 44-60.	7.5	26
62	Cybersecurity for industrial control systems: A survey. Computers and Security, 2020, 89, 101677.	6.0	133
63	Deanonymizing Tor hidden service users through Bitcoin transactions analysis. Computers and Security, 2020, 89, 101684.	6.0	39
64	Cryptocurrencies and Artificial Intelligence: Challenges and Opportunities. IEEE Access, 2020, 8, 175840-175858.	4.2	23
65	FacebookVideoLive18: A Live Video Streaming Dataset for Streams Metadata and Online Viewers Locations. , 2020, , .		13
66	EEG-based Analysis Study for Patients Receiving Intravenous Antibiotic Medication. , 2020, , .		1
67	Smart Edge Healthcare Data Sharing System. , 2020, , .		5
68	Iterative Per Group Feature Selection For Intrusion Detection. , 2020, , .		2
69	Smart Health Monitoring for Seizure Detection using Mobile Edge Computing. , 2020, , .		1
70	Machine Learning Based Cloud Computing Anomalies Detection. IEEE Network, 2020, 34, 178-183.	6.9	11
71	CE-D2D: Collaborative and Popularity-aware Proactive Chunks Caching in Edge Networks. , 2020, , .		7
72	Blockchain Based Decentralized Trust Management framework. , 2020, , .		5

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73	Collaborative hierarchical caching and transcoding in edge network with CE-D2D communication. Journal of Network and Computer Applications, 2020, 172, 102801.	9.1	13
74	ssHealth: Toward Secure, Blockchain-Enabled Healthcare Systems. IEEE Network, 2020, 34, 312-319.	6.9	82
75	TIDCS: A Dynamic Intrusion Detection and Classification System Based Feature Selection. IEEE Access, 2020, 8, 95864-95877.	4.2	50
76	Service-Less Video Multicast in 5G: Enablers and Challenges. IEEE Network, 2020, 34, 270-276.	6.9	8
77	Hybrid Machine Learning for Network Anomaly Intrusion Detection. , 2020, , .		28
78	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
79	Weighted Trustworthiness for ML Based Attacks Classification. , 2020, , .		7
80	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
81	Edge computing for energy-efficient smart health systems. , 2020, , 53-67.		12
82	AI-based techniques on edge devices to optimize energy efficiency in m-Health applications. , 2020, , 1-23.		4
83	Machine Learning Techniques for Network Anomaly Detection: A Survey. , 2020, , .		40
84	Traffic Analysis Attacks on Tor: A Survey. , 2020, , .		23
85	Performance Evaluation of Hyperledger Fabric. , 2020, , .		32
86	Navigation and Obstacle Avoidance System in Unknown Environment. , 2020, , .		4
87	Key Generation Based Fuzzy Logic and Elliptic Curve Cryptography for Internet of Things (IoT) Authentication. , 2020, , .		2
88	DistPrivacy: Privacy-Aware Distributed Deep Neural Networks in IoT surveillance systems. , 2020, , .		9
89	Performance Analysis of IoT Physical layer Security Using 3-D Stochastic Geometry. , 2020, , .		2
90	Proportionally Fair approach for Tor™s Circuits Scheduling. , 2020, , .		1

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91	Security Services Using Blockchains: A State of the Art Survey. IEEE Communications Surveys and Tutorials, 2019, 21, 858-880.	39.4	294
92	Empirical Performance Evaluation of QUIC Protocol for Tor Anonymity Network. , 2019, , .		8
93	QoE-Aware Resource Allocation for Crowdsourced Live Streaming: A Machine Learning Approach. , 2019, , .		13
94	A Survey on Recent Approaches in Intrusion Detection System in IoTs. , 2019, , .		30
95	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
96	A Combined Decision for Secure Cloud Computing Based on Machine Learning and Past Information. , 2019, , .		23
97	Efficient EEG Mobile Edge Computing and Optimal Resource Allocation for Smart Health Applications. , 2019, , .		10
98	Important Complexity Reduction of Random Forest in Multi-Classification Problem. , 2019, , .		26
99	Green data center networks: a holistic survey and design guidelines. , 2019, , .		14
100	CE-D2D: Dual Framework Chunks Caching and offloading in Collaborative Edge networks with D2D communication. , 2019, , .		11
101	DroneRF dataset: A dataset of drones for RF-based detection, classification and identification. Data in Brief, 2019, 26, 104313.	1.0	68
102	Compress or Interfere?. , 2019, , .		0
103	HYPER-VINES: A HYbrid Learning Fault and Performance Issues ERadiator for Virtual NEtwork Services over Multi-Cloud Systems. , 2019, , .		3
104	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
105	The P-ART framework for placement of virtual network services in a multi-cloud environment. Computer Communications, 2019, 139, 103-122.	5.1	21
106	Edge Computing for Smart Health: Context-Aware Approaches, Opportunities, and Challenges. IEEE Network, 2019, 33, 196-203.	6.9	160
107	Collaborative joint caching and transcoding in mobile edge networks. Journal of Network and Computer Applications, 2019, 136, 86-99.	9.1	33
108	Nutshellâ€™Simulation Toolkit for Modeling Data Center Networks and Cloud Computing. IEEE Access, 2019, 7, 19922-19942.	4.2	9

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109	Transcoding Resources Forecasting and Reservation for Crowdsourced Live Streaming. , 2019, , .		6
110	Anonymity and Privacy in Bitcoin Escrow Trades. , 2019, , .		8
111	Supervised Machine Learning Techniques for Efficient Network Intrusion Detection. , 2019, , .		14
112	Proactive Video Chunks Caching and Processing for Latency and Cost Minimization in Edge Networks. , 2019, , .		12
113	Potentials, trends, and prospects in edge technologies: Fog, cloudlet, mobile edge, and micro data centers. Computer Networks, 2018, 130, 94-120.	5.1	235
114	Robustness quantification of hierarchical complex networks under targeted failures. Computers and Electrical Engineering, 2018, 72, 112-124.	4.8	5
115	Convolutional Autoencoder Approach for EEG Compression and Reconstruction in m-Health Systems. , 2018, , .		25
116	Efficient virtual network function placement strategies for Cloud Radio Access Networks. Computer Communications, 2018, 127, 50-60.	5.1	34
117	Exploring microservices for enhancing internet QoS. Transactions on Emerging Telecommunications Technologies, 2018, 29, e3445.	3.9	16
118	Optimal virtual network function placement in multi-cloud service function chaining architecture. Computer Communications, 2017, 102, 1-16.	5.1	161
119	COLAP: A predictive framework for service function chain placement in a multi-cloud environment. , 2017, , .		24
120	Impact of Multiple Video Representations in Live Streaming: A Cost, Bandwidth, and QoE Analysis. , 2017, , .		18
121	Edge computing for interactive media and video streaming. , 2017, , .		69
122	Automated service delivery platform for C-RANs. , 2017, , .		1
123	Fault and Performance Management in Multi-Cloud Based NFV Using Shallow and Deep Predictive Structures. , 2017, , .		2
124	Machine Learning for Anomaly Detection and Categorization in Multi-Cloud Environments. , 2017, , .		63
125	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
126	Crowdsourced Multi-View Live Video Streaming using Cloud Computing. IEEE Access, 2017, 5, 12635-12647.	4.2	28

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127	Multi-objective scheduling of micro-services for optimal service function chains. , 2017, , .		33
128	QUTor: QUIC-based Transport Architecture for Anonymous Communication Overlay Networks. , 2016, , .		1
129	Feasibility of Supervised Machine Learning for Cloud Security. , 2016, , .		48
130	A survey on service function chaining. Journal of Network and Computer Applications, 2016, 75, 138-155.	9.1	226
131	Service Chaining for NFV and Delivery of Other Applications in a Global Multi-cloud Environment. , 2015, , .		3
132	Multi-cloud Distribution of Virtual Functions and Dynamic Service Deployment: Open ADN Perspective. , 2015, , .		32
133	Towards an Ontology-driven Game-based Educational platform with Automatic Student Monitoring. , 2015, , .		0
134	SAIS. , 2014, , .		13
135	Clouds + Games: A Multifaceted Approach. IEEE Internet Computing, 2014, 18, 20-27.	3.3	34
136	Sender-side buffers and the case for multimedia adaptation. Communications of the ACM, 2012, 55, 50-58.	4.5	29
137	Sender-side Buffers and the Case for Multimedia Adaptation. Queue, 2012, 10, 10-24.	1.1	4
138	DOHA. , 2012, , .		8
139	Paceline. , 2010, , .		9
140	MAGIC Broker: A Middleware Toolkit for Interactive Public Displays. , 2008, , .		32
141	A Hybrid Framework to Program Smart Environments. , 2007, , .		0