

Madhusanka Liyanage

List of Publications by Year in descending order

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124
papers

5,922
citations

147801

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62
g-index

154
all docs

154
docs citations

154
times ranked

3539
citing authors

#	ARTICLE	IF	CITATIONS
1	Emerging Directions for Blockchainized 6G. IEEE Consumer Electronics Magazine, 2024, 13, 42-51.	2.3	7
2	Blockchain-Based Network Slice Broker to Facilitate Factory-As-a-Service. IEEE Transactions on Industrial Informatics, 2023, 19, 519-530.	11.3	4
3	Industry 5.0: A survey on enabling technologies and potential applications. Journal of Industrial Information Integration, 2022, 26, 100257.	6.4	411
4	MEC-enabled 5G Use Cases: A Survey on Security Vulnerabilities and Countermeasures. ACM Computing Surveys, 2022, 54, 1-37.	23.0	33
5	Fog Computing and Blockchain-Based Security Service Architecture for 5G Industrial IoT-Enabled Cloud Manufacturing. IEEE Transactions on Industrial Informatics, 2022, 18, 7174-7185.	11.3	34
6	Deployment Options of 5G Network Slicing for Smart Healthcare. , 2022, , .		2
7	A Novel Request Handler Algorithm for Multi-access Edge Computing Platforms in 5G. , 2022, , .		2
8	A Comprehensive Analysis on Network Slicing for Smart Hospital Applications. , 2022, , .		4
9	Roadmap for edge AI. Computer Communication Review, 2022, 52, 28-33.	1.8	29
10	Realizing contact-less applications with Multi-Access Edge Computing. ICT Express, 2022, 8, 575-587.	4.8	6
11	A survey on Zero touch network and Service Management (ZSM) for 5G and beyond networks. Journal of Network and Computer Applications, 2022, 203, 103362.	9.1	47
12	Hand gesture recognition based on a Harris Hawks optimized Convolution Neural Network. Computers and Electrical Engineering, 2022, 100, 107836.	4.8	41
13	Zero knowledge proofs based authenticated key agreement protocol for sustainable healthcare. Sustainable Cities and Society, 2022, 80, 103766.	10.4	28
14	Proof of Sense: A Novel Consensus Mechanism for Spectrum Misuse Detection. IEEE Transactions on Industrial Informatics, 2022, 18, 9206-9216.	11.3	10
15	A Survey on the Convergence of Edge Computing and AI for UAVs: Opportunities and Challenges. IEEE Internet of Things Journal, 2022, 9, 15435-15459.	8.7	92
16	MEC-RHA: Demonstration of Novel Service Request Handling Algorithm for MEC. , 2022, , .		0
17	Demo: Blockchain-based Secured and Federated Slice Broker (SFSBroker). , 2022, , .		0
18	Federated Learning based Anomaly Detection as an Enabler for Securing Network and Service Management Automation in Beyond 5G Networks. , 2022, , .		10

#	ARTICLE	IF	CITATIONS
19	Survey on blockchain based smart contracts: Applications, opportunities and challenges. Journal of Network and Computer Applications, 2021, 177, 102857.	9.1	207
20	Highly efficient key agreement for remote patient monitoring in MEC-enabled 5G networks. Journal of Supercomputing, 2021, 77, 5562-5585.	3.6	8
21	The role of 5G for digital healthcare against COVID-19 pandemic: Opportunities and challenges. ICT Express, 2021, 7, 244-252.	4.8	116
22	Novel MEC Based Approaches for Smart Hospitals to Combat COVID-19 Pandemic. IEEE Consumer Electronics Magazine, 2021, 10, 80-91.	2.3	28
23	Proxy re-encryption enabled secure and anonymous IoT data sharing platform based on blockchain. Journal of Network and Computer Applications, 2021, 176, 102917.	9.1	64
24	Realizing Internet of Things with Network Slicing: Opportunities and Challenges. , 2021, , .		12
25	Performance Analysis of Softwarized Local Mobile Networks. , 2021, , .		0
26	Security Enhanced Emergency Situation Detection System for Ambient Assisted Living. IEEE Open Journal of the Computer Society, 2021, 2, 241-259.	7.8	8
27	The Roadmap to 6G Security and Privacy. IEEE Open Journal of the Communications Society, 2021, 2, 1094-1122.	6.9	141
28	Survey on Network Slicing for Internet of Things Realization in 5G Networks. IEEE Communications Surveys and Tutorials, 2021, 23, 957-994.	39.4	216
29	Survey on Blockchain-Based Smart Contracts: Technical Aspects and Future Research. IEEE Access, 2021, 9, 87643-87662.	4.2	65
30	Survey on Multi-Access Edge Computing Security and Privacy. IEEE Communications Surveys and Tutorials, 2021, 23, 1078-1124.	39.4	156
31	Millimeter-Wave Channel Modeling in a Vehicular Ad-Hoc Network Using Boseâ€œChaudhuriâ€œHocquenghem (BCH) Code. Electronics (Switzerland), 2021, 10, 992.	3.1	6
32	Privacy Protected Blockchain Based Architecture and Implementation for Sharing of Studentsâ€™ Credentials. Information Processing and Management, 2021, 58, 102512.	8.6	46
33	AI and 6G Security: Opportunities and Challenges. , 2021, , .		78
34	Scalable Storage Scheme for Blockchain-Enabled IoT Equipped Food Supply Chains. , 2021, , .		3
35	Driving forces for Multi-Access Edge Computing (MEC) IoT integration in 5G. ICT Express, 2021, 7, 127-137.	4.8	61
36	Can Blockchain Strengthen the Energy Internet?. Network, 2021, 1, 95-115.	2.4	13

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37	A Survey of Virtual Private LAN Services (VPLS): Past, Present and Future. Computer Networks, 2021, 196, 108245.	5.1	8
38	Blockchain-based Roaming and Offload Service Platform for Local 5G Operators. , 2021, , .		5
39	A Novel Blockchain-as-a-Service (BaaS) Platform for Local 5G Operators. IEEE Open Journal of the Communications Society, 2021, 2, 575-601.	6.9	25
40	A Survey on Mobile Augmented Reality With 5G Mobile Edge Computing: Architectures, Applications, and Technical Aspects. IEEE Communications Surveys and Tutorials, 2021, 23, 1160-1192.	39.4	279
41	Survey on 6G Frontiers: Trends, Applications, Requirements, Technologies and Future Research. IEEE Open Journal of the Communications Society, 2021, 2, 836-886.	6.9	294
42	Survey on blockchain for future smart grids: Technical aspects, applications, integration challenges and future research. Energy Reports, 2021, 7, 6530-6564.	5.1	58
43	Blockchain-based Decentralized Service Provisioning in Local 6G Mobile Networks. , 2021, , .		7
44	How DoS attacks can be mounted on Network Slice Broker and can they be mitigated using blockchain?. , 2021, , .		7
45	Energy efficient contact tracing and social interaction based patient prediction system for COVID-19 pandemic. Journal of Communications and Networks, 2021, 23, 390-407.	2.6	7
46	Network Slicing Strategies for Smart Industry Applications. , 2021, , .		2
47	AGE: authentication in gadget-free healthcare environments. Information Technology and Management, 2020, 21, 95-114.	2.4	18
48	A Survey on Security and Privacy of 5G Technologies: Potential Solutions, Recent Advancements, and Future Directions. IEEE Communications Surveys and Tutorials, 2020, 22, 196-248.	39.4	315
49	The Role of Blockchain to Fight Against COVID-19. IEEE Engineering Management Review, 2020, 48, 85-96.	1.3	139
50	An Emergency Situation Detection System for Ambient Assisted Living. , 2020, , .		8
51	QoESoft: QoE Management Architecture for Softwarized 5G Networks. , 2020, , .		5
52	Blockchain-based Automated Certificate Revocation for 5G IoT. , 2020, , .		15
53	Blockchain-Based Wi-Fi Offloading Platform for 5G. , 2020, , .		4
54	Robust and Lightweight Key Exchange (LKE) Protocol for Industry 4.0. IEEE Access, 2020, 8, 132808-132824.	4.2	35

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55	Performance Analysis of Local 5G Operator Architectures for Industrial Internet. IEEE Internet of Things Journal, 2020, 7, 11559-11575.	8.7	32
56	Local 5G Operator Architecture for Delay Critical Telehealth Applications. , 2020, , .		5
57	Dynamic Orchestration of Security Services at Fog Nodes for 5G IoT. , 2020, , .		8
58	BlockEdge: Blockchain-Edge Framework for Industrial IoT Networks. IEEE Access, 2020, 8, 154166-154185.	4.2	61
59	The Fight Against the COVID-19 Pandemic With 5G Technologies. IEEE Engineering Management Review, 2020, 48, 72-84.	1.3	124
60	B-VNF: Blockchain-enhanced Architecture for VNF Orchestration in MEC-5G Networks. , 2020, , .		6
61	Implementation and Analysis of Blockchain Based DApp for Secure Sharing of Students' Credentials. , 2020, , .		16
62	Reliable Control and Data Planes for Software-defined Networks. Computer Communications and Networks, 2020, , 243-270.	0.8	3
63	Secure and Resilient Communications in the Industrial Internet. Computer Communications and Networks, 2020, , 219-242.	0.8	12
64	The Role of Blockchain in 6G: Challenges, Opportunities and Research Directions. , 2020, , .		123
65	Blockchain for 5G and IoT: Opportunities and Challenges. , 2020, , .		15
66	Multi-Access Edge Computing and Blockchain-based Secure Telehealth System Connected with 5G and IoT. , 2020, , .		21
67	Blockchain and Cyberphysical Systems. Computer, 2020, 53, 31-35.	1.1	15
68	Convergence of ICN and MEC for 5G: Opportunities and Challenges. IEEE Communications Standards Magazine, 2020, 4, 64-71.	4.9	18
69	Secure and User Efficient EAP-based Authentication Protocol for IEEE 802.11 Wireless LANs. , 2020, , .		3
70	The Bitcoin-Network Protocol from a Forensic Perspective. Studies in Big Data, 2020, , 247-275.	1.1	0
71	ESSMAR: Edge Supportive Secure Mobile Augmented Reality Architecture for Healthcare. , 2020, , .		1
72	Micro-Operator driven Local 5G Network Architecture for Industrial Internet. , 2019, , .		25

#	ARTICLE	IF	CITATIONS
73	Decentralized IoT Edge Nanoservice Architecture for Future Gadget-Free Computing. IEEE Access, 2019, 7, 119856-119872.	4.2	34
74	Novel 5G Authentication Protocol to Improve the Resistance Against Active Attacks and Malicious Serving Networks. IEEE Access, 2019, 7, 64040-64052.	4.2	62
75	A Delay-Tolerant Payment Scheme Based on the Ethereum Blockchain. IEEE Access, 2019, 7, 33159-33172.	4.2	65
76	Anonymous Lightweight Proxy Based Key Agreement for IoT (ALPKA). Wireless Personal Communications, 2019, 106, 345-364.	2.7	18
77	EISIC 2019 Keynotes. , 2019, , .		0
78	Performance Analysis of Blockchain based Smart Grids with Ethereum and Hyperledger Implementations. , 2019, , .		17
79	Secure Keying Scheme for Network Slicing in 5G Architecture. , 2019, , .		18
80	Realizing Multi-Access Edge Computing Feasibility: Security Perspective. , 2019, , .		28
81	Enabling End-to-End Secure Connectivity for Low-Power IoT Devices with UAVs. , 2019, , .		8
82	Regulatory Impact on 5G Security and Privacy. , 2018, , 399-419.		2
83	Overview of 5G Security Challenges and Solutions. IEEE Communications Standards Magazine, 2018, 2, 36-43.	4.9	293
84	Towards gadget-free internet services: A roadmap of the Naked world. Telematics and Informatics, 2018, 35, 82-92.	5.8	28
85	An efficient anonymous authentication protocol in multiple server communication networks (EAAM). Journal of Supercomputing, 2018, 74, 1695-1714.	3.6	7
86	Secure and Efficient Data Accessibility in Blockchain Based Healthcare Systems. , 2018, , .		71
87	Securing Gadget-Free Digital Services. Computer, 2018, 51, 66-77.	1.1	25
88	5G Privacy: Scenarios and Solutions. , 2018, , .		40
89	Demo: A Delay-Tolerant Payment Scheme on the Ethereum Blockchain. , 2018, , .		7
90	DEMO: Mobile Relay Architecture for Low-Power IoT Devices. , 2018, , .		13

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91	Survey on Multi-Access Edge Computing for Internet of Things Realization. IEEE Communications Surveys and Tutorials, 2018, 20, 2961-2991.	39.4	535
92	On the security verification of a short message service protocol. , 2018, , .		4
93	Secure communication channel architecture for Software Defined Mobile Networks. Computer Networks, 2017, 114, 32-50.	5.1	27
94	Enhancing Security of Software Defined Mobile Networks. IEEE Access, 2017, 5, 9422-9438.	4.2	35
95	Enhancing Security, Scalability and Flexibility of Virtual Private LAN Services. , 2017, , .		2
96	From gadget to gadget-free hyperconnected world: Conceptual analysis of user privacy challenges. , 2017, , .		11
97	Analysis of deployment challenges of Host Identity Protocol. , 2017, , .		8
98	Identity privacy preserving biometric based authentication scheme for Naked healthcare environment. , 2017, , .		33
99	Software Defined Monitoring (SDM) for 5G mobile backhaul networks. , 2017, , .		7
100	SDN based operator assisted offloading platform for multi-controller 5G networks. , 2017, , .		2
101	Fast Transmission Mechanism for Secure VPLS Architectures. , 2017, , .		5
102	5G security: Analysis of threats and solutions. , 2017, , .		97
103	Software defined VPLS architectures: Opportunities and challenges. , 2017, , .		7
104	Novel secure VPN architectures for LTE backhaul networks. Security and Communication Networks, 2016, 9, 1198-1215.	1.5	9
105	Improving the tunnel management performance of secure VPLS architectures with SDN. , 2016, , .		15
106	Opportunities and Challenges of Software-Defined Mobile Networks in Network Security. IEEE Security and Privacy, 2016, 14, 34-44.	1.2	70
107	Performance and security evaluation of intra-vehicular communication architecture. , 2016, , .		2
108	Secure Communication and Data Processing Challenges in the Industrial Internet. Baltic Journal of Modern Computing, 2016, 4, .	0.4	23

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109	Leveraging LTE security with SDN and NFV. , 2015, , .		19
110	Performance analysis of open-source Linux-based HIP implementations. , 2015, , .		5
111	Security for Future Software Defined Mobile Networks. , 2015, , .		31
112	Secure Virtual Private LAN Services: An overview with performance evaluation. , 2015, , .		8
113	Secure Hierarchical VPLS Architecture for Provider Provisioned Networks. IEEE Access, 2015, 3, 967-984.	4.2	11
114	SDN and NFV integration in generalized mobile network architecture. , 2015, , .		52
115	A novel distributed spanning tree protocol for provider provisioned VPLS networks. , 2014, , .		4
116	Securing the control channel of software-defined mobile networks. , 2014, , .		33
117	Securing virtual private LAN service by efficient key management. Security and Communication Networks, 2014, 7, 1-13.	1.5	18
118	Access Point selection game for mobile wireless users. , 2014, , .		7
119	Design and Analysis of Independent, Open-Access Wi-Fi Monitoring Infrastructures in Live Environments. , 2014, , 134-147.		9
120	IP-Based Virtual Private Network Implementations in Future Cellular Networks. Advances in Wireless Technologies and Telecommunication Book Series, 2014, , 44-66.	0.4	10
121	Realization of Mobile Femtocells: Operational and Protocol Requirements. Wireless Personal Communications, 2013, 71, 339-364.	2.7	7
122	Secure hierarchical Virtual Private LAN Services for provider provisioned networks. , 2013, , .		10
123	A scalable and secure VPLS architecture for provider provisioned networks. , 2013, , .		16
124	Secured VPN Models for LTE Backhaul Networks. , 2012, , .		32