Frank H P Fitzek

List of Publications by Year
in descending order

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93 papers	1,752 citations	430874 18 h-index	377865 34 g-index
95 all docs	95 docs citations	95 times ranked	1027 citing authors

#	Article	IF	Citations
1	Device-Enhanced MEC: Multi-Access Edge Computing (MEC) Aided by End Device Computation and Caching: A Survey. IEEE Access, 2019, 7, 166079-166108.	4.2	146
2	Kodo: An Open and Research Oriented Network Coding Library. Lecture Notes in Computer Science, 2011, , 145-152.	1.3	102
3	On Code Parameters and Coding Vector Representation for Practical RLNC. , 2011, , .		84
4	Reducing Latency in Virtual Machines: Enabling Tactile Internet for Human-Machine Co-Working. IEEE Journal on Selected Areas in Communications, 2019, 37, 1098-1116.	14.0	84
5	5G Campus Networks: A First Measurement Study. IEEE Access, 2021, 9, 121786-121803.	4.2	69
6	Caterpillar RLNC (CRLNC): A Practical Finite Sliding Window RLNC Approach. IEEE Access, 2017, 5, 20183-20197.	4.2	66
7	SECRET â€" Secure network coding for reduced energy next generation mobile small cells: A European Training Network in wireless communications and networking for 5G. , 2017, , .		57
8	PACE: Redundancy Engineering in RLNC for Low-Latency Communication. IEEE Access, 2017, 5, 20477-20493.	4.2	50
9	Network Coding in Heterogeneous Multicore IoT Nodes With DAG Scheduling of Parallel Matrix Block Operations. IEEE Internet of Things Journal, 2017, 4, 917-933.	8.7	48
10	QR-SDN: Towards Reinforcement Learning States, Actions, and Rewards for Direct Flow Routing in Software-Defined Networks. IEEE Access, 2020, 8, 174773-174791.	4.2	48
11	Fulcrum: Flexible Network Coding for Heterogeneous Devices. IEEE Access, 2018, 6, 77890-77910.	4.2	44
12	Mobile Clouds: The New Content Distribution Platform. Proceedings of the IEEE, 2012, 100, 1400-1403.	21.3	41
13	Caterpillar RLNC With Feedback (CRLNC-FB): Reducing Delay in Selective Repeat ARQ Through Coding. IEEE Access, 2018, 6, 44787-44802.	4.2	38
14	Wi-Fi cooperation or D2D-based multicast content distribution in LTE-A: A comparative analysis. , 2014, , .		34
15	A Theoretical Discussion and Survey of Network Automation for IoT: Challenges and Opportunity. IEEE Internet of Things Journal, 2021, 8, 12021-12045.	8.7	34
16	DSEP Fulcrum: Dynamic Sparsity and Expansion Packets for Fulcrum Network Coding. IEEE Access, 2020, 8, 78293-78314.	4.2	31
17	Implementation of Network Coding for Social Mobile Clouds [Applications Corner]. IEEE Signal Processing Magazine, 2013, 30, 159-164.	5.6	30
18	Multi-Agent Based Autonomic Network Management Architecture. IEEE Transactions on Network and Service Management, 2021, 18, 3595-3618.	4.9	29

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19	Distributed cloud storage using network coding. , 2014, , .		28
20	Importance of Internet Exchange Point (IXP) infrastructure for 5G: Estimating the impact of 5G use cases. Telecommunications Policy, 2021, 45, 102091.	5.3	28
21	Cooperative Power Saving Strategies in Wireless Networks: an Agent-based Model. , 2007, , .		24
22	PlayNCool: Opportunistic network coding for local optimization of routing in wireless mesh networks. , 2013, , .		24
23	FAST: Flexible and Low-Latency State Transfer in Mobile Edge Computing. IEEE Access, 2021, 9, 115315-115334.	4.2	24
24	RObust Header Compression (ROHC) Performance for Multimedia Transmission over 3G/4G Wireless Networks. Wireless Personal Communications, 2005, 32, 23-41.	2.7	23
25	On-the-Fly Packet Error Recovery in a Cooperative Cluster of Mobile Devices. , 2011, , .		23
26	Reliable low latency wireless mesh networks â€" From Myth to reality. , 2018, , .		22
27	Remote Robot Control with Human-in-the-Loop over Long Distances Using Digital Twins. , 2019, , .		20
28	A Perpetual Code for Network Coding. , 2014, , .		19
29	Containers vs Virtual Machines: Choosing the Right Virtualization Technology for Mobile Edge Cloud. , 2019, , .		19
30	Quantum Communication Networks. Human Ontogenetics, 2021, , .	0.3	19
31	Decoding Algorithms for Random Linear Network Codes. Lecture Notes in Computer Science, 2011, , 129-136.	1.3	18
32	FSW: Fulcrum Sliding Window Coding for Low-Latency Communication. IEEE Access, 2022, 10, 54276-54290.	4.2	16
33	Study of Virtual Network Function Placement in 5G Cloud Radio Access Network. IEEE Transactions on Network and Service Management, 2020, 17, 2242-2259.	4.9	15
34	CubeSat-Based 5G Cloud Radio Access Networks: A Novel Paradigm for On-Demand Anytime/Anywhere Connectivity. IEEE Vehicular Technology Magazine, 2020, 15, 39-47.	3.4	15
35	Performance evaluation and comparison of RObust Header Compression (ROHC) ROHCv1 and ROHCv2 for multimedia delivery. , 2013, , .		14
36	Mobility- and Energy-Aware Cooperative Edge Offloading for Dependent Computation Tasks. Network, 2021, 1, 191-214.	2.4	14

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37	SpaRec: Sparse Systematic RLNC Recoding in Multi-Hop Networks. IEEE Access, 2021, 9, 168567-168586.	4.2	13
38	Massive video multicasting in cellular networks using network coded cooperative communication. , 2018, , .		12
39	Implementation of Network-Coded Cooperation for Energy Efficient Content Distribution in 5G Mobile Small Cells. IEEE Access, 2020, 8, 185964-185980.	4.2	12
40	Network-Coded Cooperation and Multi-Connectivity for Massive Content Delivery. IEEE Access, 2020, 8, 15656-15672.	4.2	12
41	Hardware Acceleration of EEG-Based Emotion Classification Systems: A Comprehensive Survey. IEEE Transactions on Biomedical Circuits and Systems, 2021, 15, 412-442.	4.0	12
42	Reduction of Padding Overhead for RLNC Media Distribution With Variable Size Packets. IEEE Transactions on Broadcasting, 2019, 65, 558-576.	3.2	11
43	Progressive Multicore RLNC Decoding With Online DAG Scheduling. IEEE Access, 2019, 7, 161184-161200.	4.2	11
44	Packet Header Compression: A Principle-Based Survey of Standards and Recent Research Studies. IEEE Communications Surveys and Tutorials, 2022, 24, 698-740.	39.4	11
45	Green mobile clouds: Network coding and user cooperation for improved energy efficiency. , 2012, , .		10
46	Demonstration of mobile edge cloud for tactile Internet using a 5G gaming application. , 2017, , .		10
47	Optimised Traffic Light Management Through Reinforcement Learning: Traffic State Agnostic Agent vs. Holistic Agent With Current V2I Traffic State Knowledge. IEEE Open Journal of Intelligent Transportation Systems, 2020, 1, 201-216.	4.8	10
48	Regression Model Building and Efficiency Prediction of RoHCv2 Compressor Implementations for VoIP. , 2016, , .		9
49	Advanced Adaptive Decoder Using Fulcrum Network Codes. IEEE Access, 2019, 7, 141648-141661.	4.2	9
50	Implementation of Network Coding with Recoding for Unequal-sized and Header Compressed Traffic. , 2019, , .		9
51	Follow Me, If You Can: A Framework for Seamless Migration in Mobile Edge Cloud. , 2020, , .		9
52	Energy-Aware Cooperative Offloading Framework for Inter-dependent and Delay-sensitive Tasks. , 2020, , .		9
53	Hardware Acceleration for RLNC: A Case Study Based on the Xtensa Processor with the Tensilica Instruction-Set Extension. Electronics (Switzerland), 2018, 7, 180.	3.1	8
54	Seamless Service Migration Framework for Autonomous Driving in Mobile Edge Cloud. , 2020, , .		8

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55	Healing Hands: The Tactile Internet in Future Tele-Healthcare. Sensors, 2022, 22, 1404.	3.8	8
56	On Goodput and Energy Measurements of Network Coding Schemes in the Raspberry Pi. Electronics (Switzerland), 2016, 5, 66.	3.1	7
57	Performance Evaluation of Network Header Compression Schemes for UDP, RTP and TCP. Periodica Polytechnica Electrical Engineering and Computer Science, 2016, 60, 151-162.	1.0	7
58	Efficiency Gain for RoHC Compressor Implementations with Dynamic Configuration. , 2016, , .		7
59	Vehicle Platooning: Sliding Window RLNC for Low Latency and High Resilience. , 2020, , .		7
60	Tactile Internet with Human-in-the-Loop: New frontiers of transdisciplinary research. , 2021, , 1-19.		7
61	Header Compression Schemes for Wireless Internet Access. Electrical Engineering and Applied Signal Processing Series, 2004, , .	1.2	7
62	MSN: A Playground Framework for Design and Evaluation of MicroServices-Based sdN Controller. Journal of Network and Systems Management, 2022, 30, 1.	4.9	7
63	End-to-end performance assessment of a 3D network for 6G connectivity on Mars surface. Computer Networks, 2022, 213, 109079.	5.1	7
64	Unidirectional Robust Header Compression for Reliable Low Latency Mesh Networks. , 2019, , .		6
65	You Only Look Once, But Compute Twice: Service Function Chaining for Low-Latency Object Detection in Softwarized Networks. Applied Sciences (Switzerland), 2021, 11, 2177.	2.5	5
66	Performance evaluation and implementation of IP and robust header compression schemes for TCP and UDP traffic in static and dynamic wireless contexts. Computer Science and Information Systems, 2017, 14, 283-308.	1.0	5
67	Offloading Robot Control with 5G. , 2022, , .		5
68	A Novel Architecture for Future Classical-Quantum Communication Networks. Wireless Communications and Mobile Computing, 2022, 2022, 1-18.	1.2	5
69	Robust Header Compression version 2 power consumption on Android devices via tunnelling. , 2017, , .		4
70	On the need of computing in future communication networks. , 2020, , 3-45.		4
71	A Study on Data Dissemination Techniques in Heterogeneous Cellular Networks. Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering, 2019, , 169-179.	0.3	4
72	Applying Robust Header Compression Version 2 for UDP and RTP Broadcasting with Field Constraints. , 2017, , .		3

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73	Versatile Network Codes: Energy Consumption in Heterogeneous IoT Devices. IEEE Access, 2020, 8, 168219-168228.	4.2	3
74	Network-Coded Multigeneration Protocols in Heterogeneous Cellular Networks. Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering, 2019, , 357-366.	0.3	3
75	X-MAN: A Non-Intrusive Power Manager for Energy-Adaptive Cloud-Native Network Functions. IEEE Transactions on Network and Service Management, 2022, 19, 1017-1035.	4.9	3
76	Autonomous Network Traffic Classifier Agent for Autonomic Network Management System. , 2021, , .		3
77	An Analytical Study on Functional Split in Martian 3-D Networks. IEEE Transactions on Aerospace and Electronic Systems, 2023, 59, 745-753.	4.7	3
78	Network-coded Cooperative Communication in Virtualized Mobile Small Cells. , 2019, , .		2
79	Joint Application of Sliding Window and Full-Vector RLNC for Vehicular Platooning. , 2021, , .		2
80	Real-Time Compression for Tactile Internet Data Streams. Sensors, 2021, 21, 1924.	3.8	2
81	Sliding Window RLNC on Multi-Hop Communication for Low Latency. , 2021, , .		2
82	Low-latency Sliding-window Recoding. , 2021, , .		2
83	Exploring the Benefits of Memory-Limited Fulcrum Recoding for Heterogeneous Nodes. , 2020, , .		2
84	FAST: Flexible and Low-Latency State Transfer in Mobile Edge Computing. , 2020, , .		2
85	Evaluating the Latency Overhead of Network-Coded Cooperative Networks for Different Cloud Sizes. , 2019, , .		1
86	Reliable Base Proposal for Header Compression. , 2019, , .		1
87	Integrating Quantum Simulation for Quantum-Enhanced Classical Network Emulation. IEEE Communications Letters, 2021, 25, 3922-3926.	4.1	1
88	Correction to â€œFulcrum: Flexible Network Coding for Heterogeneous Devicesâ€• IEEE Access, 2021, 9, 108199-108199.	4.2	1
89	Intelligent networks. , 2021, , 131-149.		0
90	Traces for the Tactile Internet: Architecture, concepts, and evaluations. , 2021, , 321-349.		0

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91	Prediction of RoHCv1 and RoHCv2 Compressor Utilities for VoIP. Acta Cybernetica, 2017, 23, 737-756.	0.6	0
92	Power efficient mobile small cell placement for network-coded cooperation in UDNs. Computer Networks, 2021, , 108559.	5.1	0
93	Demonstrating Cloud-Based Services for UDNs: Content Distribution Case Study. , 2022, , 437-466.		0