Roberto Bruschi

List of Publications by Year
in descending order

85 papers	1,728 citations	759233 12 h-index	377865 34 g-index
89 all docs	89 docs citations	89 times ranked	1360 citing authors

#	Article	IF	Citations
1	Energy Efficiency in the Future Internet: A Survey of Existing Approaches and Trends in Energy-Aware Fixed Network Infrastructures. IEEE Communications Surveys and Tutorials, 2011, 13, 223-244.	39.4	542
2	The potential impact of green technologies in next-generation wireline networks: Is there room for energy saving optimization?. , 2011, 49, 80-86.		143
3	Cutting the energy bills of Internet Service Providers and telecoms through power management: An impact analysis. Computer Networks, 2012, 56, 2320-2342.	5.1	125
4	Satellite Networking Integration in the 5G Ecosystem: Research Trends and Open Challenges. IEEE Network, 2018, 32, 9-15.	6.9	95
5	Enabling backbone networks to sleep. IEEE Network, 2011, 25, 26-31.	6.9	70
6	Pc-based software routers. , 2008, , .		51
7	The Green Abstraction Layer: A Standard Power-Management Interface for Next-Generation Network Devices. IEEE Internet Computing, 2013, 17, 82-86.	3.3	46
8	Green Networking With Packet Processing Engines: Modeling and Optimization. IEEE/ACM Transactions on Networking, 2014, 22, 110-123.	3.8	43
9	Linux Software Router: Data Plane Optimization and Performance Evaluation. Journal of Networks, 2007, 2, .	0.4	43
10	Energy-aware performance optimization for next-generation green network equipment. , 2009, , .		38
11	DROPv2: energy efficiency through network function virtualization. IEEE Network, 2014, 28, 26-32.	6.9	35
12	Fine-Grained Energy-Efficient Consolidation in SDN Networks and Devices. IEEE Transactions on Network and Service Management, 2015, 12, 132-145.	4.9	32
13	Green network technologies and the art of trading-off. , 2011, , .		25
14	A Multi-Clustering Approach to Scale Distributed Tenant Networks for Mobile Edge Computing. IEEE Journal on Selected Areas in Communications, 2019, 37, 499-514.	14.0	25
15	An SDN/NFV Platform for Personal Cloud Services. IEEE Transactions on Network and Service Management, 2017, 14, 1143-1156.	4.9	22
16	A Closed-Form Model for the IEEE 802.3az Network and Power Performance. IEEE Journal on Selected Areas in Communications, 2014, 32, 16-27.	14.0	21
17	Dynamic cloud service placement for live video streaming with a remote-controlled drone. , 2017, , .		15
18	Performance and power consumption modeling for green COTS Software Router. , 2009, , .		14

#	Article	IF	Citations
19	A northbound interface for power management in next generation network devices. , 2014, 52, 149-157.		13
20	The hidden cost of network low power idle. , 2013, , .		12
21	Managing 5G network slicing and edge computing with the MATILDA telecom layer platform. Computer Networks, 2021, 194, 108090.	5.1	12
22	An effective forwarding architecture for SMP Linux routers. , 2008, , .		11
23	Exporting data-plane energy-aware capabilities from network devices toward the control plane: The Green Abstraction Layer. , 2012, , .		11
24	A Game for Energy-Aware Allocation of Virtualized Network Functions. Journal of Electrical and Computer Engineering, 2016, 2016, 1-10.	0.9	11
25	The IP Lookup Mechanism in a Linux Software Router: Performance Evaluation and Optimizations. , 2007, , .		10
26	Theoretical and technological limitations of power scaling in network devices. , 2010, , .		10
27	Evaluating the energy-awareness of future Internet devices. , 2011, , .		10
28	Applying traffic merging to datacenter networks. , 2012, , .		10
29	The energy consumption of TCP. , 2013, , .		9
30	A scalable SDN slicing scheme for multi-domain fog/cloud services. , 2017, , .		9
31	A MEC Approach to Improve QoE of Video Delivery Service in Urban Spaces. , 2018, , .		9
32	DROP: An Open-Source Project towards Distributed SW Router Architectures. , 2009, , .		8
33	Modeling power management in networked devices. Computer Communications, 2014, 50, 95-109.	5.1	8
34	A Model-Based Approach Towards Real-Time Analytics in NFV Infrastructures. IEEE Transactions on Green Communications and Networking, 2020, 4, 529-541.	5.5	8
35	Active window management: Reducing energy consumption of TCP congestion control. , 2013, , .		7
36	Green extension of OpenFlow. , 2014, , .		7

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37	OpenFlow in the Small: A Flexible and Efficient Network Acceleration Framework for Multi-Core Systems. IEEE Transactions on Network and Service Management, 2014, 11, 390-404.	4.9	7
38	Large‐scale validation and benchmarking of a network of power‐conservative systems using ETSI's Green Abstraction Layer. Transactions on Emerging Telecommunications Technologies, 2016, 27, 451-468.	3.9	7
39	Hierarchical power management architecture and optimal local control policy for energy efficient networks. Journal of Communications and Networks, 2016, 18, 540-550.	2.6	7
40	Energy-Aware Resource Adaptation for Next-Generation Network Equipment. , 2009, , .		6
41	Energy-aware load balancing for parallel packet processing engines. , 2011, , .		6
42	An open-source platform for distributed Linux Software Routers. Computer Communications, 2013, 36, 396-410.	5.1	6
43	Design, Development and Orchestration of 5G-Ready Applications over Sliced Programmable Infrastructure. , 2017, , .		6
44	Energy-aware equipment for next-generation networks. , 2009, , .		5
45	An analytical model for designing and controlling new-generation green devices. , 2010, , .		5
46	Introducing standby capabilities into next-generation network devices. , 2010, , .		5
47	Dynamic voltage and frequency scaling in parallel network processors. , 2012, , .		5
48	Setting the Course for a Green Internet. Science, 2013, 342, 1316-1316.	12.6	5
49	Adaptive Frequency Control of Packet Processing Engines in Telecommunication Networks. IEEE Communications Letters, 2014, 18, 1135-1138.	4.1	5
50	Joint Power Scaling of Processing Resources and Consolidation of Virtual Network Functions. , 2016, , .		5
51	OpenStack Extension for Fog-Powered Personal Services Deployment. , 2017, , .		5
52	Corrections to: "Green Networking With Packet Processing Engines: Modeling and Optimization". IEEE/ACM Transactions on Networking, 2024, , 1-1.	3.8	5
53	Move with Me: Scalably Keeping Virtual Objects Close to Users on the Move. , 2018, , .		5
54	Capacity planning in IP Virtual Private Networks under mixed traffic. Computer Networks, 2006, 50, 1069-1085.	5.1	4

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55	Environmental benefits of a Universal Mobile Charger and energy-aware survey on current products. , 2011, , .		4
56	The TREND Meter. International Journal of Business Data Communications and Networking, 2013, 9, 27-44.	0.7	4
57	Freezing forwarding functionality to make the network greener. Computer Networks, 2015, 78, 26-41.	5.1	4
58	An Experimental Evaluation of the TCP Energy Consumption. IEEE Journal on Selected Areas in Communications, 2015, 33, 2761-2773.	14.0	4
59	Decentralized Scalable Dynamic Load Balancing Among Virtual Network Slice Instantiations. , 2018, , .		4
60	Hybrid optimization for QoS control in IP Virtual Private Networks. Computer Networks, 2008, 52, 563-580.	5.1	3
61	Designing optimal energy profiles for network hardware. , 2012, , .		3
62	Enabling the TCP segmentation offload to save energy. , 2013, , .		3
63	Energy adaptation in multi-core software routers. Computer Networks, 2014, 65, 111-128.	5.1	3
64	In-Network Programmability for Next-generation Personal Cloud Service Support (INPUT). Procedia Computer Science, 2016, 97, 114-117.	2.0	3
65	Model-based analytics for profiling workloads in virtual network functions. , 2017, , .		3
66	Guest Editorial Leveraging Machine Learning in SDN/NFV-Based Networks. IEEE Journal on Selected Areas in Communications, 2020, 38, 245-247.	14.0	3
67	SDN-Enabled Energy-Efficient Network Management. , 0, , 323-338.		3
68	Standard Methodologies for Energy Efficiency Assessment. , 2012, , 83-102.		3
69	Network Layer Performance in Peer-to-Peer File Sharing Systems. , 2008, , .		2
70	A steady-state model for energy-efficient packet processing engines under mixed traffic. , 2012, , .		2
71	Energy efficiency in optical networks. , 2012, , .		2
72	OpenFlow in the small. , 2013, , .		2

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73	Orchestration and Monitoring in Fog Computing for Personal Edge Cloud Service Support. , 2018, , .		2
74	Beyond single-box SW router architectures. , 2009, , .		1
75	The TREND experimental activities on “green” communication networks. , 2013, , .		1
76	Optimizing the power-delay product in energy-aware packet forwarding engines. , 2013, , .		1
77	Trading off power consumption and delay in packet forwarding engines with adjustable service rate. , 2014, , .		1
78	Equivalent bandwidth adaptation with energy preservation under delay constraints. , 2014, , .		1
79	Burst2Save: Reducing network-induced energy consumption in the home environment. Computer Communications, 2014, 52, 37-46.	5.1	1
80	Energy-Efficient Management and Control in Video Distribution Networks: â€˜Legacyâ€™ Hardware-Based Solutions and Perspectives of Virtualized Networking Environments. Computer Communications and Networks, 2018, , 25-57.	0.8	1
81	A scalable approach for steady state traffic modeling in high-speed backbone networks. , 2009, , .		0
82	Power scaling in network devices. , 2010, , .		0
83	Exposing energy-aware capabilities in next generation network devices. , 2013, , .		0
84	The expected impact of smart devices visualization. , 2016, , .		0
85	Modeling Performance and Energy Efficiency of Virtualized Flexible Networks. Advances in Intelligent Systems and Computing, 2019, , 257-273.	0.6	0