

Byrav Ramamurthy

List of Publications by Year in descending order

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146
papers

3,623
citations

304743

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h-index

168389

53
g-index

149
all docs

149
docs citations

149
times ranked

2377
citing authors

#	ARTICLE	IF	CITATIONS
1	A survey of security issues in wireless sensor networks. IEEE Communications Surveys and Tutorials, 2006, 8, 2-23.	39.4	614
2	Network Innovation using OpenFlow: A Survey. IEEE Communications Surveys and Tutorials, 2014, 16, 493-512.	39.4	450
3	Wavelength conversion in WDM networking. IEEE Journal on Selected Areas in Communications, 1998, 16, 1061-1073.	14.0	321
4	Impact of transmission impairments on the teletraffic performance of wavelength-routed optical networks. Journal of Lightwave Technology, 1999, 17, 1713-1723.	4.6	289
5	Optical components for WDM lightwave networks. Proceedings of the IEEE, 1997, 85, 1274-1307.	21.3	134
6	Sparse Regeneration in Translucent Wavelength-Routed Optical Networks: Architecture, Network Design and Wavelength Routing. Photonic Network Communications, 2005, 10, 39-53.	2.7	133
7	Communication Technologies and Architectures for Space Network and Interplanetary Internet. IEEE Communications Surveys and Tutorials, 2013, 15, 881-897.	39.4	110
8	Shared risk link Group (SRLG)-diverse path provisioning under hybrid service level agreements in wavelength-routed optical mesh networks. IEEE/ACM Transactions on Networking, 2005, 13, 918-931.	3.8	96
9	Dynamic routing in translucent WDM optical networks: the intradomain case. Journal of Lightwave Technology, 2005, 23, 955-971.	4.6	82
10	Survivable lightpath provisioning in WDM mesh networks under shared path protection and signal quality constraints. Journal of Lightwave Technology, 2005, 23, 1556-1567.	4.6	75
11	OpenSec: Policy-Based Security Using Software-Defined Networking. IEEE Transactions on Network and Service Management, 2016, 13, 30-42.	4.9	63
12	A link bundled auxiliary graph model for constrained dynamic traffic grooming in WDM mesh networks. IEEE Journal on Selected Areas in Communications, 2005, 23, 1542-1555.	14.0	46
13	A scalable approach for survivable virtual topology routing in optical WDM networks. IEEE Journal on Selected Areas in Communications, 2007, 25, 63-69.	14.0	46
14	Translucent optical WDM networks for the next-generation backbone networks. , 0, , .		42
15	Routing and wavelength assignment with power considerations in optical networks. Computer Networks, 2000, 32, 539-555.	5.1	36
16	Dynamic Waveband Switching in WDM Mesh Networks Based on a Generic Auxiliary Graph Model. Photonic Network Communications, 2005, 10, 309-331.	2.7	35
17	Optimizing amplifier placements in a multiwavelength optical LAN/MAN: the unequally powered wavelengths case. IEEE/ACM Transactions on Networking, 1998, 6, 755-767.	3.8	33
18	Chinese Remainder Theorem Based Hierarchical Access Control for Secure Group Communication. Lecture Notes in Computer Science, 2001, , 381-385.	1.3	32

#	ARTICLE	IF	CITATIONS
19	Dynamic traffic grooming algorithms for reconfigurable sonet over wdm networks. IEEE Journal on Selected Areas in Communications, 2003, 21, 1165-1172.	14.0	31
20	A Two-phase Approach for Dynamic Lightpath Scheduling in WDM Optical Networks. , 2007, , .		30
21	Optimizing amplifier placements in a multiwavelength optical LAN/MAN: the equally powered-wavelengths case. Journal of Lightwave Technology, 1998, 16, 1560-1569.	4.6	27
22	Simplifying network management using Software Defined Networking and OpenFlow. , 2012, , .		27
23	KeyRev: An Efficient Key Revocation Scheme for Wireless Sensor Networks. , 2007, , .		25
24	DGKD: distributed group key distribution with authentication capability. , 0, , .		24
25	Packet reordering in high-speed networks and its impact on high-speed TCP variants. Computer Communications, 2009, 32, 62-68.	5.1	24
26	Resource Allocation and QoS Guarantees for Real World IP Traffic in Integrated XG-PON and IEEE802.11e EDCA Networks. IEEE Access, 2020, 8, 124883-124893.	4.2	24
27	Survivable virtual topology routing under shared risk link groups in WDM networks. , 0, , .		23
28	The Performance of Elliptic Curve Based Group Diffie-Hellman Protocols for Secure Group Communication over Ad Hoc Networks. , 2006, , .		22
29	The GpENI testbed: Network infrastructure, implementation experience, and experimentation. Computer Networks, 2014, 61, 51-74.	5.1	22
30	SDRCS: A service-differentiated real-time communication scheme for event sensing in wireless sensor networks. Computer Networks, 2011, 55, 3287-3302.	5.1	19
31	Algorithms for Intermediate Waveband Switching in Optical WDM Mesh Networks. , 2007, , .		18
32	Linear Programming Models For Multi-Channel P2P Streaming Systems. , 2010, , .		18
33	OpenSec: A framework for implementing security policies using OpenFlow. , 2014, , .		18
34	MARS: A Multi-Attribute Routing and Scheduling Algorithm for DTN Interplanetary Networks. IEEE/ACM Transactions on Networking, 2020, 28, 2065-2076.	3.8	18
35	A graph model for dynamic waveband switching in WDM mesh networks. , 2004, , .		17
36	The Great Plains Environment for Network Innovation (GpENI): A Programmable Testbed for Future Internet Architecture Research. Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering, 2011, , 428-441.	0.3	17

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37	EAODR: A novel routing algorithm based on the Modified Temporal Graph network model for DTN-based Interplanetary Networks. <i>Computer Networks</i> , 2017, 129, 129-141.	5.1	17
38	Group Rekeying Schemes for Secure Group Communication in Wireless Sensor Networks. , 2007, , .		16
39	<title>Design of virtual private networks (VPNs) over optical wavelength-division-multiplexed (WDM) networks</title>. , 2000, , .		15
40	Sparse regeneration in a translucent WDM optical network. , 2001, , .		15
41	Interdomain dynamic wavelength routing in the next-generation translucent optical Internet. <i>Journal of Optical Networking</i> , 2004, 3, 169.	2.5	15
42	Rerouting schemes for dynamic traffic grooming in optical WDM networks. <i>Computer Networks</i> , 2008, 52, 1891-1904.	5.1	14
43	Budget-Optimized Network-Aware Joint Resource Allocation in Grids/Clouds Over Optical Networks. <i>Journal of Lightwave Technology</i> , 2016, 34, 3890-3900.	4.6	14
44	Elimination of all-optical cycles in wavelength-routed optical networks. <i>Journal of Lightwave Technology</i> , 1996, 14, 1207-1217.	4.6	12
45	<title>SIMON: a simulator for optical networks</title>. , 1999, , .		12
46	Analysis of multi-hop traffic grooming in WDM mesh networks. <i>Optical Switching and Networking</i> , 2009, 6, 64-75.	2.0	12
47	Exploring the Design Space of Multichannel Peer-to-Peer Live Video Streaming Systems. <i>IEEE/ACM Transactions on Networking</i> , 2013, 21, 162-175.	3.8	12
48	Survivable traffic grooming in WDM mesh networks under SRLG constraints. , 0, , .		11
49	A Key Management Protocol for Wireless Sensor Networks with Multiple Base Stations. , 2008, , .		11
50	A flexible Divide-and-Conquer protocol for multi-view peer-to-peer live streaming. , 2009, , .		11
51	Understanding User Generated Content Characteristics: A Hot-Event Perspective. , 2011, , .		11
52	Budget-Minimized Resource Allocation and Task Scheduling in Distributed Grid/Clouds. , 2013, , .		11
53	Heterogeneous waveband switching in wavelength division multiplexed networks based on autonomous clustering architecture [Invited]. <i>Journal of Optical Networking</i> , 2006, 5, 667.	2.5	10
54	LTRES: A loss-tolerant reliable event sensing protocol for wireless sensor networks. <i>Computer Communications</i> , 2009, 32, 1666-1676.	5.1	10

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55	A Tabu Search Approach for Joint Scheduling of Resources in a Lambda Grid Network. , 2010, , .		10
56	Cost Efficiency of Anycast-Based Forwarding in Duty-Cycled WSNs with Lossy Channel. , 2010, , .		9
57	Rightsizing Bundle Link Capacities for Energy Savings in the Core Network. , 2011, , .		9
58	Cost-Optimized Joint Resource Allocation in Grids/Clouds With Multilayer Optical Network Architecture. Journal of Optical Communications and Networking, 2014, 6, 911.	4.8	9
59	Remote mobile screen (RMS): An approach for secure BYOD environments. , 2015, , .		9
60	Multipath Forwarding Strategies and SDN Control for Named Data Networking. , 2018, , .		9
61	LSMAC vs. LSNAT: Scalable cluster-based Web servers. Cluster Computing, 2000, 3, 175-185.	5.0	8
62	Optical communication networks for the next-generation internet. IEEE Network, 2000, 14, 6-7.	6.9	8
63	Analysis of multi-hop traffic grooming in WDM mesh networks. , 0, , .		8
64	Cost and Reliability Considerations in Designing the Next-Generation IP over WDM Backbone Networks. , 2011, , .		8
65	Routing, modulation level and spectrum allocation with dynamic modulation level conversion in elastic optical networks. Photonic Network Communications, 2014, 28, 295-305.	2.7	8
66	A service-differentiated real-time communication scheme for wireless sensor networks. , 2008, , .		7
67	Continuous and Parallel Optimization of Dynamic Bandwidth Scheduling in WDM Networks. , 2010, , .		7
68	Provisioning virtualized Cloud services in IP/MPLS-over-EON networks. Photonic Network Communications, 2016, 31, 418-431.	2.7	7
69	Cache management for large data transfers and multipath forwarding strategies in Named Data Networking. Computer Networks, 2021, 199, 108437.	5.1	7
70	An Authenticated Key Agreement Protocol for Mobile Ad Hoc Networks. Lecture Notes in Computer Science, 2006, , 509-520.	1.3	7
71	Layered Clustering Communication Protocol for Wireless Sensor Networks. , 2007, , .		6
72	On provisioning diverse circuits in heterogeneous multi-layer optical networks. Computer Communications, 2013, 36, 689-697.	5.1	6

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73	The Interplanetary Internet Implemented on the GENI Testbed. , 2015, , .		6
74	The Case for Using Content-Centric Networking for Distributing High-Energy Physics Software. , 2017, , .		6
75	Enhancing the SDTMA-NDN architecture for transferring the scientific data software using named data networking. Computer Networks, 2020, 166, 106954.	5.1	6
76	Switches, Wavelength Routers, and Wavelength Converters. , 2002, , 51-75.		5
77	A Dynamic Partitioning Protection Routing Technique in WDM Networks. Cluster Computing, 2004, 7, 259-269.	5.0	5
78	Distributed hybrid agent based intrusion detection and real time response system. , 0, , .		5
79	Design of sparse grooming networks for transporting dynamic multi-granularity sub-wavelength traffic. , 2005, , .		5
80	On computing disjoint paths with dependent cost structure in optical networks. , 0, , .		5
81	Router and Firewall Redundancy with OpenBSD and CARP. , 2006, , .		5
82	Variable neighbor selection in live peer-to-peer multimedia streaming networks. , 2008, , .		5
83	A security framework for wireless sensor networks utilizing a unique session key. , 2008, , .		5
84	A two-tier Wireless Sensor Network infrastructure for large-scale real-time groundwater monitoring. , 2010, , .		5
85	A dynamic local method for bandwidth adaptation in bundle links to conserve energy in core networks. , 2011, , .		5
86	Improving multi-view peer-to-peer live streaming systems with the divide-and-conquer strategy. Computer Networks, 2011, 55, 4069-4085.	5.1	5
87	A dynamic local method for bandwidth adaptation in bundle links to conserve energy in core networks. Optical Switching and Networking, 2013, 10, 481-490.	2.0	5
88	Cost-Optimized Reservation and Routing for Scheduled Traffic in Optical Networks. Journal of Optical Communications and Networking, 2013, 5, 1215.	4.8	5
89	Provisioning virtualized cloud services in IP/MPLS-over-EON Networks. , 2015, , .		5
90	Ease of Use and Acceptability of a Smartphone App for Young, Low-Income Mothers. Journal of Technology in Behavioral Science, 2018, 3, 5-11.	2.3	5

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91	Connection Management for Wavelength-Routed Optical WDM Networks. Network Theory and Applications, 2001, , 187-203.	0.6	5
92	Providing statistically guaranteed streaming quality for peer-to-peer live streaming. , 2009, , .		5
93	LSMAC: An improved load sharing network service dispatcher. World Wide Web, 2000, 3, 53-59.	4.0	4
94	Signaling Schemes for Distributed Connection Management in Wavelength-Routed Optical Mesh Networks. Photonic Network Communications, 2004, 8, 89-103.	2.7	4
95	JOR: a content-based object router. Computer Communications, 2005, 28, 654-663.	5.1	4
96	Dynamic Lightpath Scheduling in Next-Generation WDM Optical Networks. , 2006, , .		4
97	Autonomous Clustering-Based Heterogeneous Waveband Switching in WDM Networks. , 2006, , .		4
98	Dedicated path protection for waveband switching in WDM networks (invited paper). , 2007, , .		4
99	A Partial Forwarding Scheme for Dynamic Window Resizing in Live P2P Streaming Systems. , 2008, , .		4
100	Providing Reliable Data Transport for Dynamic Event Sensing in Wireless Sensor Networks. , 2008, , .		4
101	The interplanetary Internet implemented on a terrestrial testbed. , 2013, , .		4
102	Balancing Cost and Reliability in the Design of Internet Protocol Backbone Using Agile Optical Networking. IEEE Transactions on Reliability, 2014, 63, 427-442.	4.6	4
103	The Interplanetary Internet implemented on a terrestrial testbed. Ad Hoc Networks, 2015, 27, 147-158.	5.5	4
104	N-Look Ahead Routing and Scheduling (N-LARS) for DTN Space Networks. , 2018, , .		4
105	Future Wireless Networking Experiments Escaping Simulations. Future Internet, 2022, 14, 120.	3.8	4
106	Guest editorial - Multidomain optical networks: issues and challenges. , 2008, 46, 76-77.		3
107	An efficient scheme for removing compromised sensor nodes from wireless sensor networks. Security and Communication Networks, 2010, 3, 320-333.	1.5	3
108	Using OpenFlow to provide cut-through switching in MobilityFirst. Photonic Network Communications, 2014, 28, 165-177.	2.7	3

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109	Inter-domain routing with cut-through switching for the MobilityFirst Future Internet architecture. , 2016, , .		3
110	Dynamic provisioning in virtualized Cloud infrastructure in IP/MPLS-over-WDM networks. , 2017, , .		3
111	Enhanced New Mothers Network Cell Phone Application Intervention: Interdisciplinary Team Development and Lessons Learned. Comprehensive Child and Adolescent Nursing, 2017, 40, 126-135.	0.9	3
112	Comparative Performance Evaluation of High-performance Data Transfer Tools. , 2018, , .		3
113	Dynamic wavelength and bandwidth allocation for supporting diverse customers and prioritized traffic in NG-PON2 networks. Photonic Network Communications, 2020, 40, 194-208.	2.7	3
114	A GCD attack resistant CRTHACS for secure group communications. , 2004, , .		2
115	A load-balancing spare capacity reallocation approach in service-rich SONET metro mesh networks. , 0, , .		2
116	A distributed reliable data transport strategy for event based wireless sensor networks. , 2006, , .		2
117	Diverse community: Demand differentiation in P2P live streaming. Peer-to-Peer Networking and Applications, 2011, 4, 23-36.	3.9	2
118	On providing bounded delay service to subscribers in P2P live streaming systems. , 2012, , .		2
119	Cut-through switching options in a MobilityFirst network with openflow. , 2013, , .		2
120	Resource delayed release strategy for dynamic and fast end-to-end service provisioning in SDN-enabled OTN over WDM networks. , 2017, , .		2
121	Large Data Transfer Predictability and Forecasting using Application-Aware SDN. , 2018, , .		2
122	Optimized Service Chain Mapping and reduced flow processing with Application-Awareness. , 2018, , .		2
123	Cache Management for Large Data Transfers in Named Data Networking using SDN. , 2019, , .		2
124	Supporting Diverse Customers and Prioritized Traffic in Next-Generation Passive Optical Networks. Lecture Notes in Computer Science, 2020, , 645-657.	1.3	2
125	A key management protocol for hybrid wireless sensor networks. , 2007, , .		1
126	An efficient and attack-resistant key agreement scheme for secure group communications in mobile ad-hoc networks. Wireless Communications and Mobile Computing, 2008, 8, 1297-1312.	1.2	1

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127	Optimal segment size for fixed-sized segment protection in wavelength-routed optical networks. , 2009, , .		1
128	Experiences with dynamic circuit creation in a regional network testbed. , 2011, , .		1
129	The Interplanetary Internet Implemented on the GENI Testbed. , 2014, , .		1
130	MHealthInt: Healthcare intervention using mobile app and Google Cloud Messaging. , 2016, , .		1
131	Network-aware virtual data center resource orchestration in an optical data center. , 2017, , .		1
132	Automated Inter-Domain Cut-Through Switching for the Future Internet. IEEE Transactions on Network and Service Management, 2018, 15, 1393-1406.	4.9	1
133	On Cost Optimized Routing for Scheduled Traffic in Multi-layer Optical Transport Networks. , 2012, , .		1
134	Investigation of Energy Savings in Optical Networks using Bundle Link Rightsizing Methods. , 2013, , .		1
135	Fiber, Lasers, Receivers, and Amplifiers. , 2002, , 27-50.		0
136	Electro-Optic and Wavelength Conversion. , 0, , 101-127.		0
137	A New Cryptographic Scheme for Securing Dynamic Conferences in Data Networks. , 2006, , .		0
138	A load-balancing spare capacity reallocation approach in the next-generation SONET metro networks. Optical Switching and Networking, 2008, 5, 38-50.	2.0	0
139	Providing NPR-Style Time-Shifted Streaming in P2P Systems. , 2011, , .		0
140	Partial forwarding vs. partial participation for dynamic window resizing in P2P streaming. Computer Networks, 2012, 56, 1782-1796.	5.1	0
141	CAPEX optimized routing for scheduled traffic in multi-layer optical networks. , 2013, , .		0
142	SDTMA-NDN: Scientific data transfer management architecture using named data networking. , 2017, , .		0
143	OneLNK. , 2022, , .		0
144	Design Aspects of optical communication networks. Electrical Engineering and Applied Signal Processing Series, 2002, , .	1.2	0

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145	Key Management in Wireless Sensor Networks with Multiple Base Stations. , 2010, , 419-442.		0
146	SNAG: SDN-Managed Network Architecture for GridFTP Transfers Using Application-Awareness. IEEE/ACM Transactions on Networking, 2022, 30, 1585-1598.	3.8	0