Krishna M Sivalingam

List of Publications by Year
in descending order

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165 papers	3,531 citations	471509 17 h-index	189892 50 g-index
172 all docs	172 docs citations	172 times ranked	2022 citing authors

#	Article	IF	Citations
1	Data gathering algorithms in sensor networks using energy metrics. IEEE Transactions on Parallel and Distributed Systems, 2002, 13, 924-935.	5.6	940
2	A Survey of Energy Efficient Network Protocols for Wireless Networks. Wireless Networks, 2001, 7, 343-358.	3.0	660
3	Dynamic resource allocation schemes during handoff for mobile multimedia wireless networks. IEEE Journal on Selected Areas in Communications, 1999, 17, 1270-1283.	14.0	151
4	Low-complexity multiple access protocols for wavelength-division multiplexed photonic networks. IEEE Journal on Selected Areas in Communications, 1993, 11, 590-604.	14.0	104
5	Call Admission Control for Voice/Data Integrated Cellular Networks: Performance Analysis and Comparative Study. IEEE Journal on Selected Areas in Communications, 2004, 22, 706-718.	14.0	95
6	Cognitive Radio Network setup without a Common Control Channel. , 2008, , .		84
7	Routing, wavelength and time-slot-assignment algorithms for wavelength-routed optical WDM/TDM networks. Journal of Lightwave Technology, 2005, 23, 2598-2609.	4.6	70
8	Routing, wavelength and time-slot assignment in time division multiplexed wavelength-routed optical WDM networks. , 0, , .		69
9	Design and analysis of lowâ€power access protocols for wireless and mobile ATM networks. Wireless Networks, 2000, 6, 73-87.	3.0	60
10	Scheduling multimedia services in a low-power MAC for wireless and mobile ATM networks. IEEE Transactions on Multimedia, 1999, 1, 187-201.	7.2	59
11	Performance comparison of battery power consumption in wireless multiple access protocols. Wireless Networks, 1999, 5, 445-460.	3.0	54
12	Title is missing!. Photonic Network Communications, 2001, 3, 227-236.	2.7	44
13	Network and power-grid co-simulation framework for Smart Grid wide-area monitoring networks. Journal of Network and Computer Applications, 2016, 59, 274-284.	9.1	44
14	<title>MAC protocols for ultra-wide-band (UWB) wireless networks: impact of channel acquisition time</title>. , 2002, 4869, 97.		43
15	On reducing delay in mobile data collection based wireless sensor networks. Wireless Networks, 2013, 19, 285-299.	3.0	40
16	Media access protocols for WDM networks with on-line scheduling. Journal of Lightwave Technology, 1996, 14, 1278-1286.	4.6	38
17	Reinforcement Learning Based Geographic Routing Protocol for UWB Wireless Sensor Network. , 2007, , .		38
18	A multilevel WDM access protocol for an optically interconnected multiprocessor system. Journal of Lightwave Technology, 1995, 13, 2152-2167.	4.6	33

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19	Power Optimization in Routing Protocols for Wireless and Mobile Networks. , 0, , 407-423.		32
20	SDN based Evolved Packet Core architecture for efficient user mobility support. , 2015, , .		29
21	Architecture and experimental results for quality of service in mobile networks using RSVP and CBQ. Wireless Networks, 2000, 6, 221-234.	3.0	26
22	Title is missing!. Mobile Networks and Applications, 2001, 6, 385-395.	3.3	22
23	Energy-efficient mobile data collection in Wireless Sensor Networks with delay reduction using wireless communication. , 2010, , .		22
24	A hybrid protection-restoration mechanism for enhancing dual-failure restorability in optical mesh-restorable networks. , 2003, , .		21
25	A hierarchical extension to RSVP-TE for fast lightpath setup in dynamic optical networks. Photonic Network Communications, 2006, 13, 67-78.	2.7	21
26	An efficient One-Time Password authentication scheme using a smart card. International Journal of Security and Networks, 2009, 4, 145.	0.2	21
27	Scheduling in Optical WDM Networks Using Hidden Markov Chain Based Traffic Prediction. Photonic Network Communications, 2001, 3, 269-283.	2.7	20
28	Comparative analysis of wireless ATM channel access protocols supporting multimedia traffic. Mobile Networks and Applications, 1998, 3, 293-306.	3.3	19
29	TCP improvements for data center networks. , 2013, , .		19
30	Optical Traffic Grooming-Based Data Center Networks: Node Architecture and Comparison. IEEE Journal on Selected Areas in Communications, 2016, 34, 1618-1630.	14.0	18
31	An Interval-Based Scheduling Algorithm for Optical WDM Star Networks. Photonic Network Communications, 2002, 4, 73-87.	2.7	17
32	A Survey of MAC Protocols for Sensor Networks. , 2004, , 93-107.		16
33	Hybrid survivability approaches for optical WDM mesh networks. Journal of Lightwave Technology, 2005, 23, 3046-3055.	4.6	16
34	Reducing power consumption in LTE data scheduling with the constraints of channel condition and QoS. Computer Networks, 2014, 75, 149-159.	5.1	16
35	A co-simulation framework for Smart Grid wide-area monitoring networks. , 2014, , .		16
36	Scheduling algorithms for multiple channel wireless local area networks. Computer Communications, 2002, 25, 1305-1314.	5.1	15

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37	Multiple channel scheduling in UWB based IEEE 802.15.3 networks. , 0, , .		14
38	Wireless sensor network for sodium leak detection. Nuclear Engineering and Design, 2012, 249, 432-437.	1.7	14
39	On Performance of Node Placement Approaches for Hierarchical Heterogeneous Sensor Networks. Mobile Networks and Applications, 2009, 14, 401-414.	3.3	13
40	Comparison of publish-subscribe network architectures for Smart Grid wide area monitoring. , 2012, , .		13
41	A Centrality Entropy Maximization Problem in Shortest Path Routing Networks. Computer Networks, 2016, 104, 1-15.	5.1	13
42	QoS Aware Multi-Channel Scheduling for IEEE 802.15.3 Networks. Mobile Networks and Applications, 2006, 11, 47-62.	3.3	12
43	An architecture for QoS guarantees and routing in wireless/mobile networks. , 1998, , .		11
44	A Survey of Survivability Techniques for Optical WDM Networks. , 2005, , 297-331.		11
45	Reliable data delivery in wireless sensor networks using distributed cluster monitoring. International Journal of Sensor Networks, 2006, 1, 75.	0.4	11
46	Target tracking in a WSN with directional sensors using electronic beam steering. , 2012, , .		11
47	A Hybrid Approach to Optimize Node Placements in Hierarchical Heterogeneous Networks. , 2007, , .		10
48	Testbed based throughput analysis in a Wireless Sensor Network. , 2012, , .		10
49	ONU buffer reduction for power efficiency in Passive Optical Networks. Optical Switching and Networking, 2013, 10, 416-429.	2.0	10
50	Fault tolerance mechanisms for virtual data center architectures. Photonic Network Communications, 2014, 28, 154-164.	2.7	10
51	Guest Editorial: Special Issue on Wireless Sensor Networks. Mobile Networks and Applications, 2003, 8, 425-425.	3.3	9
52	On surviving dual-link failures in path protected optical WDM mesh networks. Optical Switching and Networking, 2006, 3, 71-88.	2.0	9
53	Cryptographic key exchange based on locationing information. Pervasive and Mobile Computing, 2007, 3, 15-35.	3.3	9
54	Alpha-beta filter based target tracking in clustered wireless sensor networks. , 2011, , .		9

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55	On recovery of lost targets in a cluster-based wireless sensor network. , 2011, , .		9
56	On fault tolerance in data center network virtualization architectures. , 2013, , .		9
57	An SDN framework for seamless mobility in enterprise WLANs. , 2015, , .		9
58	<title>QoS for virtual private networks (VPN) over optical WDM networks</title>. , 2000, , .		8
59	A survey of hybrid optical data center network architectures. Photonic Network Communications, 2017, 33, 87-101.	2.7	8
60	<title>Design and performance analysis of preallocation protocols for WDM photonic networks</title>. , 1993, , .		7
61	Education of wireless and ATM networking concepts using hands-on laboratory experience. , 1999, , .		7
62	<title>Restoration mechanisms based on tunable lasers for handling channel and link failures in optical WDM networks</title>. , 2002, , .		7
63	Data gathering in ultra wide band based wireless sensor networks using a mobile node. , 2007, , .		7
64	Efficient data gathering in distributed hybrid sensor networks using multiple mobile agents. , 2008, , .		7
65	ONU Buffer Elimination for Power Savings in Passive Optical Networks. , 2011, , .		7
66	Throughput analysis of multiple channel based wireless sensor networks. Wireless Networks, 2013, 19, 461-476.	3.0	7
67	Dynamic DRX algorithms for reduced energy consumption and delay in LTE networks. , 2014, , .		7
68	A customizable agile approach to Network Function Placement. , 2017, , .		7
69	Centralized approaches for virtual network function placement in SDN-enabled networks. Eurasip Journal on Wireless Communications and Networking, 2018, 2018, .	2.4	7
70	Acknowledgement techniques of random access based media access protocols for a WDM photonic environment. Computer Communications, 1993, 16, 458-471.	5.1	6
71	A battery power level aware MAC protocol for CDMA wireless networks. , 0, , .		6
72	Threshold based selective link restoration for optical wdm mesh networks. , 0, , .		6

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73	Restoration mechanisms for handling channel and link failures in optical WDM networks: tunable laser-based switch architectures and performance analysis. Computer Communications, 2005, 28, 987-999.	5.1	6
74	Design and analysis of partial protection mechanisms in groomed optical WDM mesh networks. Journal of Optical Networking, 2008, 7, 617.	2.5	6
75	Performance of a multi-channel MAC protocol based on IEEE 802.15.4 radio. , 2009, , .		6
76	Effects of Mobility in Hierarchical Mobile Ad Hoc Networks. , 2009, , .		6
77	Performance analysis of Dynamic Bandwidth Allocation algorithms for long-reach PONs. , 2010, , .		6
78	Multi-path routing in optical WDM networks: Even versus uneven split bandwidth allocation. , 2010, , .		6
79	Performance evaluation of scheduling algorithms for mobile WiMAX networks. , 2012, , .		6
80	Scheduling in data center networks with optical traffic grooming. , 2014, , .		6
81	Implementation of wrap around mechanism for system level simulation of LTE cellular networks in NS3. , 2017, , .		6
82	Performance evaluation of optical cross-connect architectures with tunable transceivers. , 0, , .		5
83	Enhancing TCP Performance in AMC Based Broadband Wireless Access Networks. , 2008, , .		5
84	Improved opportunistic scheduling algorithms for WiMAX Mobile Multihop Relay networks. , 2009, , .		5
85	Interest flooding reduction in Content Centric Networks. , 2013, , .		5
86	Network architecture supporting seamless flow mobility between LTE and WiFi networks. , 2015, , .		5
87	Switching Latency Impact on Star-Coupled WDM Photonic Network Pre-Allocation Protocol Performance. Journal of High Speed Networks, 1992, 1, 289-314.	0.8	4
88	A testbed for distributed target tracking with directional sensors. , 2011, , .		4
89	Application of entropy of centrality measures to routing in tactical wireless networks. , 2013, , .		4
90	Performance analysis of ONU-wavelength grouping schemes for efficient scheduling in long reach-PONs. Optical Switching and Networking, 2013, 10, 465-474.	2.0	4

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91	Quality of experience aware video scheduling in LTE networks. , 2014, , .		4
92	Analytical model for power savings in LTE networks using DRX mechanism. , 2015, , .		4
93	Time synchronization mechanisms for an optically groomed data center network. , 2016, , .		4
94	Iterative power control based admission control for wireless networks. Wireless Networks, 2016, 22, 619-633.	3.0	4
95	A Comparison of Bit-Parallel and Bit-Serial Architectures for WDM Networks. Photonic Network Communications, 1999, 1, 89-103.	2.7	3
96	Adaptive Scheduling at Mobiles for Wireless Networks with Multiple Priority Traffic and Multiple Transmission Channels. Lecture Notes in Computer Science, 1999, , 234-238.	1.3	3
97	A rendezvous reservation protocol for energy constrained wireless infrastructure networks. Wireless Networks, 2007, 13, 93-105.	3.0	3
98	Localization Error Evaluation in Heterogeneous Sensor Networks. , 2008, , .		3
99	On Guided Navigation in Target Tracking Sensor Networks Using Alpha-Beta Filters. , 2011, , .		3
100	ONU-wavelength grouping scheme for efficient scheduling in Long Reach-PONs. , 2011, , .		3
101	A comparative study of dynamic bandwidth allocation algorithms for long reach passive optical networks. IETE Technical Review (Institution of Electronics and Telecommunication Engineers, India), 2012, 29, 405.	3.2	3
102	Testbed evaluation of a seamless handover mechanism for an SDN-based enterprise WLAN. Sadhana - Academy Proceedings in Engineering Sciences, 2019, 44, 1.	1.3	3
103	Delegated Anonymous Credentials With Revocation Capability for IoT Service Chains (DANCIS). IEEE Internet of Things Journal, 2022, 9, 3729-3742.	8.7	3
104	P4 and NetFPGA-Based Secure In-Network Computing Architecture for AI-Enabled Industrial Internet of Things. IEEE Internet of Things Journal, 2023, 10, 2979-2994.	8.7	3
105	Slice admission control using overbooking for enhancing provider revenue in 5G Networks. , 2022, , .		3
106	A Hierarchical Architecture for QoS Guarantees and Routing in Wireless/Mobile Networks. Journal of Parallel and Distributed Computing, 2000, 60, 510-520.	4.1	2
107	Scheduling in optical WDM networks using hidden Markov chain-based traffic predictors. , 0, , .		2
108	Threshold based selective survivability for optical WDM mesh networks. , 0, , .		2

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109	UWB Networks and Applications. , 2005, , 297-313.		2
110	Reservation based wavelength assignment for sparse groomed optical WDM mesh networks. , 0, , .		2
111	Partial Protection in Optical WDM Networks: Enhanced Support for Dynamic Traffic. , 2006, , .		2
112	Design for WDM rings based on differentiated path availability. Photonic Network Communications, 2006, 13, 13-18.	2.7	2
113	Design and analysis of a dual radio node architecture and medium access control protocols for Ultra Wide Band based sensor networks. , 2007, , .		2
114	Convergence conditions for iterative Transmission Power Control algorithms in wireless networks. , 2011, , .		2
115	Wireless sensor node based smart mine design. , 2012, , .		2
116	Load-Dependent Power-Efficient Passive Optical Network Architectures. Journal of Optical Communications and Networking, 2014, 6, 1104.	4.8	2
117	Domain sizing in optical traffic grooming based data center networks. , 2015, , .		2
118	Integrated network coding and caching in information-centric networks: revisiting pervasive caching in the ICN framework. Photonic Network Communications, 2015, 30, 416-427.	2.7	2
119	Power efficient resource allocation algorithms for provisioning in SDH networks. , 2017, , .		2
120	SR Domain Partitioning in Segment Routed SDNs. , 2019, , .		2
121	Collaborative Packet Header Parsing in NetFPGA-Based High Speed Switches. IEEE Networking Letters, 2020, 2, 124-127.	1.9	2
122	Design and evaluation of low-cost network architecture for persistent WiFi connectivity in trains. Sadhana - Academy Proceedings in Engineering Sciences, 2020, 45, 1.	1.3	2
123	An online distributed approach to Network Function Placement in NFV-enabled networks. Sadhana - Academy Proceedings in Engineering Sciences, 2021, 46, 1.	1.3	2
124	Dynamic Gateway Selection for Load Balancing in LTE Networks. Lecture Notes in Computer Science, 2014, , 408-422.	1.3	2
125	Efficient failure recovery techniques for segment-routed networks. Computer Communications, 2022, 182, 1-12.	5.1	2
126	5G Network Management System With Machine Learning Based Analytics. IEEE Access, 2022, 10, 73610-73622.	4.2	2

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127	<title>Channel access protocols for high-speed LANs using WDM: a comparative study</title>. , 1995, , .		1
128	Title is missing!. Photonic Network Communications, 1999, 1, 219-234.	2.7	1
129	Education of wireless and ATM networking concepts using hands-on laboratory experience. SIGCSE Bulletin, 1999, 31, 114-118.	0.1	1
130	Analysis of IP grooming approaches in optical WDM mesh networks. , 2005, , .		1
131	Limited Grooming Architectures and Groomer-port Placement in Optical WDM Mesh Networks. , 2006, , .		1
132	Performance study of IP and SONET grooming in optical WDM mesh networks. Journal of Optical Networking, 2007, 6, 568.	2.5	1
133	A Routing Algorithm Framework for Survivable Optical Networks Based on Resource Consumption Minimization. Journal of Lightwave Technology, 2007, 25, 1684-1692.	4.6	1
134	Design of grooming architectures for optical WDM mesh networks: limited grooming with electronic wavelength conversion. Photonic Network Communications, 2008, 16, 71-82.	2.7	1
135	A study of energy vs. quality of tracking trade-off in Wireless Sensor Networks. , 2011, , .		1
136	Guided navigation of friendly object towards mobile target in wireless sensor networks. , 2011, , .		1
137	Adaptive push based data collection method for online performance monitoring. , 2011, , .		1
138	Reporting in ONUs with reduced buffers. , 2012, , .		1
139	Link datarate based admission control in wireless networks. , 2012, , .		1
140	An entropy maximization problem in shortest path routing networks. , 2014, , .		1
141	Organization-Level Control of Excessive Internet Downloads. , 2016, , .		1
142	Design and Analysis of Scheduling Algorithms for Optically Groomed Data Center Networks. IEEE/ACM Transactions on Networking, 2017, 25, 3282-3293.	3.8	1
143	Topology based path computation for provisioning in transport networks. , 2017, , .		1
144	Funplace: A Protocol for Network Function Placement. , 2017, , .		1

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145	Combinatorial approach for network switch design in data center networks. , 2017, , .		1
146	Provisioning in transport networks using power-aware resource allocation algorithms. Sadhana - Academy Proceedings in Engineering Sciences, 2019, 44, 1.	1.3	1
147	Path Computation for Dynamic Provisioning in Multi-Technology Multi-Layer Transport Networks. SN Computer Science, 2020, 1, 1.	3.6	1
148	A NAT Based Seamless Handover for Software Defined Enterprise WLANs. Lecture Notes in Computer Science, 2019, , 78-90.	1.3	1
149	Scalable multiple channel scheduling with optimal utility for wireless local area networks. , 0, , .		0
150	An improved unified network protocol framework for large-scale wireless sensor networks. , 2004, , .		0
151	Guest Editorial: Special Issue on Wireless Sensor Networks. Mobile Networks and Applications, 2005, 10, 489-490.	3.3	0
152	Wireless Multimedia Personal Area Networks: An Overview. , 2006, , 169-198.		0
153	WiMAX Mesh Based Back-Haul For Tactical Military And Disaster Area Networks. , 2012, , .		0
154	Reliable data transfer mechanisms for Smart Grid wide area monitoring networks. , 2013, , .		0
155	Network coding based reliable and efficient data transfer for Smart Grid monitoring. , 2013, , .		0
156	Report Duration Computation Schemes in Reduced-Buffer Optical Network Units for Passive Optical Networks. Journal of Optical Communications and Networking, 2013, 5, 1157.	4.8	0
157	Integrated network coding and caching in information-centric networks. , 2014, , .		0
158	Dynamic routing framework for OMNeT++ based Hardware-In-The-Loop (HITL) network simulation. , 2014, , .		0
159	Reducing power consumption in LTE data scheduling with the constraints of channel condition and QoS. , 2014, , .		0
160	Network architecture for seamless flow mobility between LTE and WiFi networks: testbed and results. CSI Transactions on ICT, 2019, 7, 45-59.	1.0	0
161	Optimal segments for forwarding table size minimization in segmentâ€routed SDNs. International Journal of Network Management, 2021, 31, e2142.	2.2	0
162	Security Trends and Challenges in Wireless Sensor Networks. , 2010, , 357-397.		0

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163	Adaptive Velocity Based Guided Navigation in Wireless Sensor Networks. Lecture Notes in Computer Science, 2012, , 234-248.	1.3	0
164	Protection Architectures for WDM Passive Optical Networks. , 0, , 57-87.		0
165	A minimal resource highâ€speed routing lookup mechanism for servers with NetFPGAs. Transactions on Emerging Telecommunications Technologies, 0, , .	3.9	0