Krishna M Sivalingam

List of Publications by Year
in descending order

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	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
2	Delegated Anonymous Credentials With Revocation Capability for IoT Service Chains (<i>DANCIS</i>). IEEE Internet of Things Journal, 2022, 9, 3729-3742.	8.7	3
3	Efficient failure recovery techniques for segment-routed networks. Computer Communications, 2022, 182, 1-12.	5.1	2
4	Slice admission control using overbooking for enhancing provider revenue in 5G Networks. , 2022, , .		3
5	5G Network Management System With Machine Learning Based Analytics. IEEE Access, 2022, 10, 73610-73622.	4.2	2
6	Optimal segments for forwarding table size minimization in segment‚Ä‚routed SDNs. International Journal of Network Management, 2021, 31, e2142.	2.2	0
7	An online distributed approach to Network Function Placement in NFV-enabled networks. Sadhana - Academy Proceedings in Engineering Sciences, 2021, 46, 1.	1.3	2
8	Collaborative Packet Header Parsing in NetFPGA-Based High Speed Switches. IEEE Networking Letters, 2020, 2, 124-127.	1.9	2
9	Path Computation for Dynamic Provisioning in Multi-Technology Multi-Layer Transport Networks. SN Computer Science, 2020, 1, 1.	3.6	1
10	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
11	Provisioning in transport networks using power-aware resource allocation algorithms. Sadhana - Academy Proceedings in Engineering Sciences, 2019, 44, 1.	1.3	1
12	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
13	SR Domain Partitioning in Segment Routed SDNs. , 2019, , .		2
14	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
15	A NAT Based Seamless Handover for Software Defined Enterprise WLANs. Lecture Notes in Computer Science, 2019, , 78-90.	1.3	1
16	Centralized approaches for virtual network function placement in SDN-enabled networks. Eurasip Journal on Wireless Communications and Networking, 2018, 2018, .	2.4	7
17	A customizable agile approach to Network Function Placement. , 2017, , .		7
18	Design and Analysis of Scheduling Algorithms for Optically Groomed Data Center Networks. IEEE/ACM Transactions on Networking, 2017, 25, 3282-3293.	3.8	1

#	Article	IF	Citations
19	Implementation of wrap around mechanism for system level simulation of LTE cellular networks in NS3. , 2017, , .		6
20	Power efficient resource allocation algorithms for provisioning in SDH networks. , 2017, , .		2
21	Topology based path computation for provisioning in transport networks. , 2017, , .		1
22	A survey of hybrid optical data center network architectures. Photonic Network Communications, 2017, 33, 87-101.	2.7	8
23	Funplace: A Protocol for Network Function Placement. , 2017, , .		1
24	Combinatorial approach for network switch design in data center networks. , 2017, , .		1
25	Organization-Level Control of Excessive Internet Downloads. , 2016, , .		1
26	Time synchronization mechanisms for an optically groomed data center network. , 2016, , .		4
27	A Centrality Entropy Maximization Problem in Shortest Path Routing Networks. Computer Networks, 2016, 104, 1-15.	5.1	13
28	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
29	Iterative power control based admission control for wireless networks. Wireless Networks, 2016, 22, 619-633.	3.0	4
30	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
31	Domain sizing in optical traffic grooming based data center networks. , 2015, , .		2
32	An SDN framework for seamless mobility in enterprise WLANs. , 2015, , .		9
33	Analytical model for power savings in LTE networks using DRX mechanism. , 2015, , .		4
34	Network architecture supporting seamless flow mobility between LTE and WiFi networks. , 2015, , .		5
35	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
36	SDN based Evolved Packet Core architecture for efficient user mobility support. , 2015, , .		29

#	Article	IF	Citations
37	Load-Dependent Power-Efficient Passive Optical Network Architectures. Journal of Optical Communications and Networking, 2014, 6, 1104.	4.8	2
38	Scheduling in data center networks with optical traffic grooming. , 2014, , .		6
39	Reducing power consumption in LTE data scheduling with the constraints of channel condition and QoS. Computer Networks, 2014, 75, 149-159.	5.1	16
40	Integrated network coding and caching in information-centric networks. , 2014, , .		0
41	Dynamic DRX algorithms for reduced energy consumption and delay in LTE networks. , 2014, , .		7
42	An entropy maximization problem in shortest path routing networks. , 2014, , .		1
43	Dynamic routing framework for OMNeT&#x002B;&#x002B; based Hardware-In-The-Loop (HITL) network simulation. , 2014, , .		0
44	Reducing power consumption in LTE data scheduling with the constraints of channel condition and QoS. , 2014, , .		0
45	Fault tolerance mechanisms for virtual data center architectures. Photonic Network Communications, 2014, 28, 154-164.	2.7	10
46	A co-simulation framework for Smart Grid wide-area monitoring networks. , 2014, , .		16
47	Quality of experience aware video scheduling in LTE networks. , 2014, , .		4
48	Dynamic Gateway Selection for Load Balancing in LTE Networks. Lecture Notes in Computer Science, 2014, , 408-422.	1.3	2
49	On reducing delay in mobile data collection based wireless sensor networks. Wireless Networks, 2013, 19, 285-299.	3.0	40
50	ONU buffer reduction for power efficiency in Passive Optical Networks. Optical Switching and Networking, 2013, 10, 416-429.	2.0	10
51	Reliable data transfer mechanisms for Smart Grid wide area monitoring networks. , 2013, , .		0
52	Network coding based reliable and efficient data transfer for Smart Grid monitoring. , 2013, , .		0
53	Application of entropy of centrality measures to routing in tactical wireless networks. , 2013, , .		4
54	TCP improvements for data center networks. , 2013, , .		19

#	ARTICLE	IF	CITATIONS
55	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
56	Throughput analysis of multiple channel based wireless sensor networks. Wireless Networks, 2013, 19, 461-476.	3.0	7
57	On fault tolerance in data center network virtualization architectures. , 2013, , .		9
58	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
59	Interest flooding reduction in Content Centric Networks. , 2013, , .		5
60	Target tracking in a WSN with directional sensors using electronic beam steering. , 2012, , .		11
61	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
62	Reporting in ONUs with reduced buffers. , 2012, , .		1
63	WiMAX Mesh Based Back-Haul For Tactical Military And Disaster Area Networks. , 2012, , .		0
64	Testbed based throughput analysis in a Wireless Sensor Network. , 2012, , .		10
65	Comparison of publish-subscribe network architectures for Smart Grid wide area monitoring. , 2012, , .		13
66	Wireless sensor node based smart mine design. , 2012, , .		2
67	Link datarate based admission control in wireless networks. , 2012, , .		1
68	Performance evaluation of scheduling algorithms for mobile WiMAX networks. , 2012, , .		6
69	Wireless sensor network for sodium leak detection. Nuclear Engineering and Design, 2012, 249, 432-437.	1.7	14
70	Adaptive Velocity Based Guided Navigation in Wireless Sensor Networks. Lecture Notes in Computer Science, 2012, , 234-248.	1.3	0
71	A testbed for distributed target tracking with directional sensors. , 2011, , .		4
72	Convergence conditions for iterative Transmission Power Control algorithms in wireless networks. , 2011, , .		2

#	Article	IF	Citations
73	Alpha-beta filter based target tracking in clustered wireless sensor networks. , 2011, , .		9
74	A study of energy vs. quality of tracking trade-off in Wireless Sensor Networks. , 2011, , .		1
75	On Guided Navigation in Target Tracking Sensor Networks Using Alpha-Beta Filters. , 2011, , .		3
76	ONU-wavelength grouping scheme for efficient scheduling in Long Reach-PONs. , 2011, , .		3
77	Guided navigation of friendly object towards mobile target in wireless sensor networks. , 2011, , .		1
78	ONU Buffer Elimination for Power Savings in Passive Optical Networks. , 2011, , .		7
79	On recovery of lost targets in a cluster-based wireless sensor network. , 2011, , .		9
80	Adaptive push based data collection method for online performance monitoring. , 2011, , .		1
81	Energy-efficient mobile data collection in Wireless Sensor Networks with delay reduction using wireless communication. , 2010, , .		22
82	Performance analysis of Dynamic Bandwidth Allocation algorithms for long-reach PONs. , 2010, , .		6
83	Multi-path routing in optical WDM networks: Even versus uneven split bandwidth allocation. , 2010, , .		6
84	Security Trends and Challenges in Wireless Sensor Networks. , 2010, , 357-397.		0
85	Performance of a multi-channel MAC protocol based on IEEE 802.15.4 radio. , 2009, , .		6
86	Effects of Mobility in Hierarchical Mobile Ad Hoc Networks. , 2009, , .		6
87	On Performance of Node Placement Approaches for Hierarchical Heterogeneous Sensor Networks. Mobile Networks and Applications, 2009, 14, 401-414.	3.3	13
88	Improved opportunistic scheduling algorithms for WiMAX Mobile Multihop Relay networks. , 2009, , .		5
89	An efficient One-Time Password authentication scheme using a smart card. International Journal of Security and Networks, 2009, 4, 145.	0.2	21
90	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

#	Article	IF	Citations
91	Efficient data gathering in distributed hybrid sensor networks using multiple mobile agents. , 2008, , .		7
92	Design and analysis of partial protection mechanisms in groomed optical WDM mesh networks. Journal of Optical Networking, 2008, 7, 617.	2.5	6
93	Cognitive Radio Network setup without a Common Control Channel. , 2008, , .		84
94	Localization Error Evaluation in Heterogeneous Sensor Networks. , 2008, , .		3
95	Enhancing TCP Performance in AMC Based Broadband Wireless Access Networks. , 2008, , .		5
96	A Hybrid Approach to Optimize Node Placements in Hierarchical Heterogeneous Networks. , 2007, , .		10
97	Reinforcement Learning Based Geographic Routing Protocol for UWB Wireless Sensor Network. , 2007, , .		38
98	Performance study of IP and SONET grooming in optical WDM mesh networks. Journal of Optical Networking, 2007, 6, 568.	2.5	1
99	A Routing Algorithm Framework for Survivable Optical Networks Based on Resource Consumption Minimization. Journal of Lightwave Technology, 2007, 25, 1684-1692.	4.6	1
100	Design and analysis of a dual radio node architecture and medium access control protocols for Ultra Wide Band based sensor networks. , 2007, , .		2
101	Data gathering in ultra wide band based wireless sensor networks using a mobile node. , 2007, , .		7
102	Cryptographic key exchange based on locationing information. Pervasive and Mobile Computing, 2007, 3, 15-35.	3.3	9
103	A rendezvous reservation protocol for energy constrained wireless infrastructure networks. Wireless Networks, 2007, 13, 93-105.	3.0	3
104	Partial Protection in Optical WDM Networks: Enhanced Support for Dynamic Traffic. , 2006, , .		2
105	Limited Grooming Architectures and Groomer-port Placement in Optical WDM Mesh Networks. , 2006, , .		1
106	Wireless Multimedia Personal Area Networks: An Overview. , 2006, , 169-198.		0
107	Reliable data delivery in wireless sensor networks using distributed cluster monitoring. International Journal of Sensor Networks, 2006, 1, 75.	0.4	11
108	On surviving dual-link failures in path protected optical WDM mesh networks. Optical Switching and Networking, 2006, 3, 71-88.	2.0	9

#	Article	IF	Citations
109	Design for WDM rings based on differentiated path availability. Photonic Network Communications, 2006, 13, 13-18.	2.7	2
110	A hierarchical extension to RSVP-TE for fast lightpath setup in dynamic optical networks. Photonic Network Communications, 2006, 13, 67-78.	2.7	21
111	QoS Aware Multi-Channel Scheduling for IEEE 802.15.3 Networks. Mobile Networks and Applications, 2006, 11, 47-62.	3.3	12
112	Analysis of IP grooming approaches in optical WDM mesh networks. , 2005, , .		1
113	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
114	Guest Editorial: Special Issue on Wireless Sensor Networks. Mobile Networks and Applications, 2005, 10, 489-490.	3.3	0
115	UWB Networks and Applications. , 2005, , 297-313.		2
116	A Survey of Survivability Techniques for Optical WDM Networks. , 2005, , 297-331.		11
117	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
118	Hybrid survivability approaches for optical WDM mesh networks. Journal of Lightwave Technology, 2005, 23, 3046-3055.	4.6	16
119	A Survey of MAC Protocols for Sensor Networks. , 2004, , 93-107.		16
120	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
121	An improved unified network protocol framework for large-scale wireless sensor networks. , 2004, , .		0
122	Guest Editorial: Special Issue on Wireless Sensor Networks. Mobile Networks and Applications, 2003, 8, 425-425.	3.3	9
123	A hybrid protection-restoration mechanism for enhancing dual-failure restorability in optical mesh-restorable networks. , 2003, , .		21
124	<title>Restoration mechanisms based on tunable lasers for handling channel and link failures in optical WDM networks</title>. , 2002, , .		7
125	<title>MAC protocols for ultra-wide-band (UWB) wireless networks: impact of channel acquisition time</title>. , 2002, 4869, 97.		43
126	Scheduling algorithms for multiple channel wireless local area networks. Computer Communications, 2002, 25, 1305-1314.	5.1	15

#	Article	IF	Citations
127	An Interval-Based Scheduling Algorithm for Optical WDM Star Networks. Photonic Network Communications, 2002, 4, 73-87.	2.7	17
128	Data gathering algorithms in sensor networks using energy metrics. IEEE Transactions on Parallel and Distributed Systems, 2002, 13, 924-935.	5.6	940
129	A Survey of Energy Efficient Network Protocols for Wireless Networks. Wireless Networks, 2001, 7, 343-358.	3.0	660
130	Scheduling in Optical WDM Networks Using Hidden Markov Chain Based Traffic Prediction. Photonic Network Communications, 2001, 3, 269-283.	2.7	20
131	Title is missing!. Mobile Networks and Applications, 2001, 6, 385-395.	3.3	22
132	Title is missing!. Photonic Network Communications, 2001, 3, 227-236.	2.7	44
133	<title>QoS for virtual private networks (VPN) over optical WDM networks</title>. , 2000, , .		8
134	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
135	Architecture and experimental results for quality of service in mobile networks using RSVP and CBQ. Wireless Networks, 2000, 6, 221-234.	3.0	26
136	Design and analysis of low‑power access protocols for wireless and mobile ATM networks. Wireless Networks, 2000, 6, 73-87.	3.0	60
137	Education of wireless and ATM networking concepts using hands-on laboratory experience. , 1999, , .		7
138	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
139	Title is missing!. Photonic Network Communications, 1999, 1, 219-234.	2.7	1
140	A Comparison of Bit-Parallel and Bit-Serial Architectures for WDM Networks. Photonic Network Communications, 1999, 1, 89-103.	2.7	3
141	Performance comparison of battery power consumption in wireless multiple access protocols. Wireless Networks, 1999, 5, 445-460.	3.0	54
142	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
143	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
144	Education of wireless and ATM networking concepts using hands-on laboratory experience. SIGCSE Bulletin, 1999, 31, 114-118.	0.1	1

#	Article	IF	Citations
145	Comparative analysis of wireless ATM channel access protocols supporting multimedia traffic. Mobile Networks and Applications, 1998, 3, 293-306.	3.3	19
146	An architecture for QoS guarantees and routing in wireless/mobile networks. , 1998, , .		11
147	Media access protocols for WDM networks with on-line scheduling. Journal of Lightwave Technology, 1996, 14, 1278-1286.	4.6	38
148	<title>Channel access protocols for high-speed LANs using WDM: a comparative study</title>. , 1995, , .		1
149	A multilevel WDM access protocol for an optically interconnected multiprocessor system. Journal of Lightwave Technology, 1995, 13, 2152-2167.	4.6	33
150	Acknowledgement techniques of random access based media access protocols for a WDM photonic environment. Computer Communications, 1993, 16, 458-471.	5.1	6
151	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
152	<title>Design and performance analysis of preallocation protocols for WDM photonic networks</title>. , 1993, , .		7
153	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
154	A battery power level aware MAC protocol for CDMA wireless networks. , 0, , .		6
155	Scheduling in optical WDM networks using hidden Markov chain-based traffic predictors. , 0, , .		2
156	Routing, wavelength and time-slot assignment in time division multiplexed wavelength-routed optical WDM networks. , 0, , .		69
157	Power Optimization in Routing Protocols for Wireless and Mobile Networks. , 0, , 407-423.		32
158	Threshold based selective link restoration for optical wdm mesh networks. , 0, , .		6
159	Scalable multiple channel scheduling with optimal utility for wireless local area networks. , 0, , .		0
160	Threshold based selective survivability for optical WDM mesh networks. , 0, , .		2
161	Multiple channel scheduling in UWB based IEEE 802.15.3 networks. , 0, , .		14
162	Performance evaluation of optical cross-connect architectures with tunable transceivers. , 0, , .		5

#	Article	IF	Citations
163	Reservation based wavelength assignment for sparse groomed optical WDM mesh networks. , 0, , .		2
164	Protection Architectures for WDM Passive Optical Networks. , 0, , 57-87.		0
165	A minimal resource high‐speed routing lookup mechanism for servers with NetFPGAs. Transactions on Emerging Telecommunications Technologies, 0, , .	3.9	0