

# Amiya Nayak

## List of Publications by Year in descending order

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121  
papers

2,646  
citations

230014

27  
h-index

232693

48  
g-index

124  
all docs

124  
docs citations

124  
times ranked

3019  
citing authors

#	ARTICLE	IF	CITATIONS
1	Decentralized Access Control with Anonymous Authentication of Data Stored in Clouds. IEEE Transactions on Parallel and Distributed Systems, 2014, 25, 384-394.	4.0	184
2	A Decentralized Security Framework for Data Aggregation and Access Control in Smart Grids. IEEE Transactions on Smart Grid, 2013, 4, 196-205.	6.2	182
3	Intersection-Based Geographical Routing Protocol for VANETs: A Proposal and Analysis. IEEE Transactions on Vehicular Technology, 2011, 60, 4560-4574.	3.9	178
4	DL-IDS: a deep learning-based intrusion detection framework for securing IoT. Transactions on Emerging Telecommunications Technologies, 2022, 33, e3803.	2.6	109
5	Anonymous and Lightweight Authentication for Secure Vehicular Networks. IEEE Transactions on Vehicular Technology, 2017, 66, 10626-10636.	3.9	107
6	A social network approach to trust management in VANETs. Peer-to-Peer Networking and Applications, 2014, 7, 229-242.	2.6	103
7	Byzantine-Resilient Secure Software-Defined Networks with Multiple Controllers in Cloud. IEEE Transactions on Cloud Computing, 2014, 2, 436-447.	3.1	87
8	Hop count optimal position-based packet routing algorithms for ad hoc wireless networks with a realistic physical Layer. IEEE Journal on Selected Areas in Communications, 2005, 23, 1267-1275.	9.7	86
9	Cascading failures in smart grid: Joint effect of load propagation and interdependence. IEEE Access, 2015, 3, 2520-2530.	2.6	79
10	A performance comparison of delay-tolerant network routing protocols. IEEE Network, 2016, 30, 46-53.	4.9	77
11	Balancing System Survivability and Cost of Smart Grid Via Modeling Cascading Failures. IEEE Transactions on Emerging Topics in Computing, 2013, 1, 45-56.	3.2	73
12	Lightweight remote user authentication protocol for multi-server 5G networks using self-certified public key cryptography. Journal of Network and Computer Applications, 2019, 131, 66-74.	5.8	72
13	Localized Geographic Routing to a Mobile Sink with Guaranteed Delivery in Sensor Networks. IEEE Journal on Selected Areas in Communications, 2012, 30, 1719-1729.	9.7	65
14	AS-IDS: Anomaly and Signature Based IDS for the Internet of Things. Journal of Network and Systems Management, 2021, 29, 1.	3.3	64
15	Energy Cost Models of Smartphones for Task Offloading to the Cloud. IEEE Transactions on Emerging Topics in Computing, 2015, 3, 384-398.	3.2	59
16	Physical layer impact on the design and performance of routing and broadcasting protocols in ad hoc and sensor networks. Computer Communications, 2005, 28, 1138-1151.	3.1	55
17	Progress and Location Based Localized Power Aware Routing for Ad Hoc and Sensor Wireless Networks. International Journal of Distributed Sensor Networks, 2006, 2, 147-159.	1.3	54
18	A Power-Efficient and Social-Aware Relay Selection Method for Multi-Hop D2D Communications. IEEE Communications Letters, 2018, 22, 1450-1453.	2.5	52

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19	Comparison-Based System-Level Fault Diagnosis: A Neural Network Approach. IEEE Transactions on Parallel and Distributed Systems, 2012, 23, 1047-1059.	4.0	48
20	An improved network security situation assessment approach in software defined networks. Peer-to-Peer Networking and Applications, 2019, 12, 295-309.	2.6	43
21	Communication protocols for vehicular <i>ad hoc</i> networks. Wireless Communications and Mobile Computing, 2011, 11, 567-582.	0.8	38
22	A Spam Transformer Model for SMS Spam Detection. IEEE Access, 2021, 9, 80253-80263.	2.6	38
23	Active-Source Seismic Tomography at the Brady Geothermal Field, Nevada, with Dense Nodal and Fiber-Optic Seismic Arrays. Seismological Research Letters, 2018, 89, 1629-1640.	0.8	36
24	Measuring linearity of planar point sets. Pattern Recognition, 2008, 41, 2503-2511.	5.1	34
25	A localized algorithm for bi-connectivity of connected mobile robots. Telecommunication Systems, 2009, 40, 129-140.	1.6	31
26	Randomized carrier-based sensor relocation in wireless sensor and robot networks. Ad Hoc Networks, 2013, 11, 1951-1962.	3.4	29
27	Enhancing peer-to-peer systems through redundancy. IEEE Journal on Selected Areas in Communications, 2007, 25, 15-24.	9.7	28
28	Carrier-Based Focused Coverage Formation in Wireless Sensor and Robot Networks. IEEE Transactions on Automatic Control, 2011, 56, 2406-2417.	3.6	28
29	Separation of D2EHPA and M2EHPA. Hydrometallurgy, 1988, 19, 309-320.	1.8	27
30	Sleep Scheduling in Energy Harvesting Wireless Body Area Networks. IEEE Communications Magazine, 2019, 57, 95-101.	4.9	26
31	Biconnecting a network of mobile robots using virtual angular forces. Computer Communications, 2012, 35, 1038-1046.	3.1	22
32	Cross layer design for efficient video streaming over LTE using scalable video coding. , 2012, , .		21
33	Fast and Scalable Counterfeits Estimation for Large-Scale RFID Systems. IEEE/ACM Transactions on Networking, 2016, 24, 1052-1064.	2.6	21
34	Fair and Social-Aware Message Forwarding Method in Opportunistic Social Networks. IEEE Communications Letters, 2019, 23, 720-723.	2.5	20
35	A Distributed Social-Aware Location Protection Method in Untrusted Vehicular Social Networks. IEEE Transactions on Vehicular Technology, 2019, 68, 6114-6124.	3.9	19
36	Channel quality-based AMC and smart scheduling scheme for SVC video transmission in LTE MBSFN networks. , 2012, , .		18

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37	Federated Transfer Learning-Based IDS for the Internet of Medical Things (IoMT). , 2021, , .		16
38	A harmony-seeking firefly swarm to the periodic replacement of damaged sensors by a team of mobile robots. , 2012, , .		15
39	Greedy localized routing for maximizing probability of delivery in wireless ad hoc networks with a realistic physical layer. Journal of Parallel and Distributed Computing, 2006, 66, 499-506.	2.7	14
40	Efficient construction of catastrophic patterns for VLSI reconfigurable arrays. The Integration VLSI Journal, 1993, 15, 133-150.	1.3	13
41	Controlled Straight Mobility and Energy-Aware Routing in Robotic Wireless Sensor Networks. , 2012, , .		13
42	Toward Parallel Edge Computing in Long-Reach PONs. Journal of Optical Communications and Networking, 2018, 10, 736.	3.3	13
43	An Intelligent Traffic Classification in SDN-IoT: A Machine Learning Approach. , 2020, , .		13
44	Localized delayâ€bounded and energyâ€efficient data aggregation in wireless sensor and actor networks. Wireless Communications and Mobile Computing, 2011, 11, 1603-1617.	0.8	12
45	Localized routing with guaranteed delivery and a realistic physical layer in wireless sensor networks. Computer Communications, 2006, 29, 2550-2555.	3.1	11
46	Techniques for Enhancing TCP Performance in Wireless Networks. , 2012, , .		11
47	Improving flow completion time for short flows in datacenter networks. , 2015, , .		11
48	Discovery method for distributed denial-of-service attack behavior in SDNs using a feature-pattern graph model. Frontiers of Information Technology and Electronic Engineering, 2019, 20, 1195-1208.	1.5	11
49	Energy-Efficient Decentralized Framework for the Integration of Fog With Optical Access Networks. IEEE Transactions on Green Communications and Networking, 2020, 4, 927-938.	3.5	11
50	RTEAM: Risk-Based Trust Evaluation Advanced Model for VANETs. IEEE Access, 2021, 9, 117772-117783.	2.6	10
51	A PARALLEL PROBABILISTIC SYSTEM-LEVEL FAULT DIAGNOSIS APPROACH FOR LARGE MULTIPROCESSOR SYSTEMS. Parallel Processing Letters, 2006, 16, 63-79.	0.4	9
52	Localized load-aware geographic routing in wireless ad hoc networks. , 2012, , .		9
53	Efficient Authentication Protocol for Secure Vehicular Communications. , 2014, , .		9
54	Integrating Fog With Long-Reach PONs From a Dynamic Bandwidth Allocation Perspective. Journal of Lightwave Technology, 2018, 36, 5276-5284.	2.7	9

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55	Linking handover delay to load balancing in SDN-based heterogeneous networks. Computer Communications, 2021, 173, 170-182.	3.1	9
56	Efficient Authentication Protocol for Continuous Monitoring in Medical Sensor Networks. IEEE Open Journal of the Computer Society, 2021, 2, 130-138.	5.2	9
57	On testing for catastrophic faults in reconfigurable arrays with arbitrary link redundancy. The Integration VLSI Journal, 1996, 20, 327-342.	1.3	8
58	A Distributed Constraint Satisfaction Problem Approach to Virtual Device Composition. IEEE Transactions on Parallel and Distributed Systems, 2012, 23, 1997-2009.	4.0	8
59	Characterization and Detection of Tail Energy Bugs in Smartphones. IEEE Access, 2018, 6, 65098-65108.	2.6	8
60	Energy-Efficient Sleep Scheduling in WBANs: From the Perspective of Minimum Dominating Set. IEEE Internet of Things Journal, 2019, 6, 6237-6246.	5.5	8
61	On securing IoT from Deep Learning perspective. , 2020, , .		8
62	A note on isomorphic chordal rings. Information Processing Letters, 1995, 55, 339-341.	0.4	7
63	An Efficient Video Adaptation Scheme for SVC Transport over LTE Networks. , 2011, , .		7
64	Efficient detection of faulty nodes with cuckoo search in t-diagnosable systems. Applied Soft Computing Journal, 2015, 29, 52-64.	4.1	7
65	A Collaborative Caching-Transmission Method for Heterogeneous Video Services in Cache-Enabled Terahertz Heterogeneous Networks. IEEE Transactions on Vehicular Technology, 2022, 71, 3187-3200.	3.9	7
66	Signature-Over-The-Air with Transfer Learning IDS for Intelligent Connected Vehicles (ICV). , 2021, , .		7
67	A GNN-based Approach to Optimize Cache Hit Ratio in NDN Networks. , 2021, , .		7
68	An improved testing scheme for catastrophic fault patterns. Information Processing Letters, 2000, 73, 199-206.	0.4	6
69	CAAHR: Content aware adaptive HARQ retransmission scheme for 4G/LTE network. , 2012, , .		6
70	Multi-dimensional clustering and network monitoring system for aeronautical ad hoc networks. , 2015, , .		6
71	Towards More Dynamic Energy-Efficient Bandwidth Allocation in EPONs. , 2018, , .		6
72	A Secure Blockchain-based Prescription Drug Supply in Health-care Systems. , 2019, , .		6

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73	Cooperative Neighbor Discovery Protocol for a Wireless Network Using Two Antenna Patterns. , 2012, , .		5
74	Location privacy-protection based on p-destination in mobile social networks: A game theory analysis. , 2017, , .		5
75	Enumerating catastrophic fault patterns in VLSI arrays with both uni- and bidirectional links. The Integration VLSI Journal, 2001, 30, 157-168.	1.3	4
76	Using support vector machines to solve the comparison-based system-level fault diagnosis problem. International Journal of Parallel, Emergent and Distributed Systems, 2016, 31, 176-200.	0.7	4
77	Economic No-Key Semi-Quantum Direct Communication Protocol. , 2017, , .		4
78	Modeling Handover Signaling Messages in OpenFlow-Based Mobile Software-Defined Networks. Journal of Computer Networks and Communications, 2018, 2018, 1-14.	1.2	4
79	Applying transmission-coverage algorithms for secure geocasting in VANETs. International Journal of Computational Science and Engineering, 2018, 16, 17.	0.4	4
80	Authentication Protocol for Real-Time Wearable Medical Sensor Networks Using Biometrics and Continuous Monitoring. , 2019, , .		4
81	Towards Smart Trust Management of VANETs. , 2020, , .		4
82	On characterization of catastrophic faults in two-dimensional VLSI arrays. The Integration VLSI Journal, 2004, 38, 267-281.	1.3	3
83	Characterization of catastrophic faults in two-dimensional reconfigurable systolic arrays with unidirectional links. Information Processing Letters, 2004, 92, 189-197.	0.4	3
84	LaConf: A localized address autoconfiguration scheme for wireless ad hoc networks. Tsinghua Science and Technology, 2011, 16, 529-538.	4.1	3
85	An online shadowed clustering algorithm applied to risk visualization in Territorial Security. , 2012, , .		3
86	Policy management: leveraging the open virtualization format with contract and solution models. IEEE Network, 2012, 26, 22-27.	4.9	3
87	On the feasibility of service composition in a long-reach PON backhaul. , 2018, , .		3
88	Talk Half Listen To Half: Energy-Efficient Neighbor Discovery in Wireless Sensor Networks. , 2019, , .		3
89	A Fog-based Reputation Evaluation Model for VANETs. , 2021, , .		3
90	Hybrid Mode Radio Link Control for Efficient Video Transmission over 4GLTE Network. , 2012, , .		2

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91	Adaptive Context Dissemination in Heterogeneous Environments. IEEE Transactions on Mobile Computing, 2014, 13, 1173-1185.	3.9	2
92	ACPM: An associative connectivity prediction model for AANET. , 2016, , .		2
93	A Hierarchical Approach to Handle Inter-domain Mobility in SDN-based Networks using Mobile IP. , 2018, , .		2
94	ACP: An Efficient User Location Privacy Preserving Protocol for Opportunistic Mobile Social Networks. , 2018, , .		2
95	Keyless Semi-Quantum Point-to-point Communication Protocol with Low Resource Requirements. Scientific Reports, 2019, 9, 64.	1.6	2
96	Fog Integration with Optical Access Networks from an Energy Efficiency Perspective. , 2020, , .		2
97	Risk-based Trust Evaluation Model for VANETs. , 2020, , .		2
98	Characterization, testing and reconfiguration of faults in mesh networks. The Integration VLSI Journal, 2007, 40, 525-535.	1.3	1
99	Guest Editorial: Networking Challenges in Cloud Computing Systems and Applications. IEEE Journal on Selected Areas in Communications, 2013, 31, 2593-2595.	9.7	1
100	Continuous Answering Holistic Queries over Sensor Networks. IEEE Transactions on Parallel and Distributed Systems, 2016, 27, 394-404.	4.0	1
101	Effective role-assignment for participatory sensing systems. , 2017, , .		1
102	Learning automata based method for solving demand and supply problem with periodic behaviors. , 2017, , .		1
103	A Distributed Approach to Improving EPC Controller Performance. , 2017, , .		1
104	Relay-Based iBGP Multicasting in Software Defined Networks. , 2018, , .		1
105	Performance Evaluation of Community Detection Algorithms Based on Relationship Strength Measurement. , 2018, , .		1
106	Privacy Protection for E-Health Systems using Three-Factor User Authentication. , 2019, , .		1
107	A Scheme to Design Community Detection Algorithms in Various Networks. Future Internet, 2019, 11, 41.	2.4	1
108	Periodic Time Series Data Analysis by Deep Learning Methodology. IEEE Access, 2020, 8, 223078-223088.	2.6	1

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109	Improving the Response Time of SDN Controllers Based on Vertical Handover. , 2020, , .		1
110	Characterization of Catastrophic Faults in Reconfigurable Systolic Arrays. VLSI Design, 1998, 7, 143-150.	0.5	0
111	Editorial for Advances on Cognitive, Mobile and Ubiquitous Systems Special Issue. Mobile Networks and Applications, 2014, 19, 522-523.	2.2	0
112	SDN based ECN adaptation scheme for improving data center long flow throughput. , 2015, , .		0
113	Extended core-based community detection for directed networks. , 2017, , .		0
114	Distributed Localization for Participatory Sensing Systems. Procedia Computer Science, 2017, 110, 78-85.	1.2	0
115	Guest Editorial Special Section on Cloud Computing in Smart Grid Operation and Management. IEEE Transactions on Industrial Informatics, 2018, 14, 1207-1209.	7.2	0
116	Period Detection and Future Trend Prediction Using Machine Learning Techniques. , 2018, , .		0
117	On Improving Measurement Accuracy of DREAM Framework with Estimation Filters. , 2018, , .		0
118	Towards Green Fog-LR-PON Integration for Wireless Backhalls. , 2018, , .		0
119	Decentralized Bandwidth Allocation Framework for Energy-Efficiency and Fog Integration in PONs. , 2020, , .		0
120	A Novel Service Composition Approach for Offloading in Mobile Edge Computing. , 2020, , .		0
121	A Framework for QoS-based Routing in SDNs Using Deep Learning. , 2020, , .		0