

# Rudra Dutta

## List of Publications by Year in descending order

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98  
papers

1,514  
citations

567281

15  
h-index

395702

33  
g-index

106  
all docs

106  
docs citations

106  
times ranked

903  
citing authors

#	ARTICLE	IF	CITATIONS
1	Traffic grooming in WDM networks: past and future. IEEE Network, 2002, 16, 46-56.	6.9	304
2	A Survey of Network Design Problems and Joint Design Approaches in Wireless Mesh Networks. IEEE Communications Surveys and Tutorials, 2011, 13, 396-428.	39.4	185
3	On optimal traffic grooming in WDM rings. IEEE Journal on Selected Areas in Communications, 2002, 20, 110-121.	14.0	119
4	Network Virtualization: Technologies, Perspectives, and Frontiers. Journal of Lightwave Technology, 2013, 31, 523-537.	4.6	117
5	Traffic Grooming: A Changing Role in Green Optical Networks. , 2009, , .		60
6	ChoiceNet. Computer Communication Review, 2014, 44, 58-65.	1.8	57
7	Dynamic traffic grooming: the changing role of traffic grooming. IEEE Communications Surveys and Tutorials, 2007, 9, 32-50.	39.4	51
8	On Hierarchical Traffic Grooming in WDM Networks. IEEE/ACM Transactions on Networking, 2008, 16, 1226-1238.	3.8	48
9	Advanced Wireless for Unmanned Aerial Systems: 5G Standardization, Research Challenges, and AERPAW Architecture. IEEE Vehicular Technology Magazine, 2020, 15, 22-30.	3.4	45
10	Clustering Methods for Hierarchical Traffic Grooming in Large-Scale Mesh WDM Networks. Journal of Optical Communications and Networking, 2010, 2, 502.	4.8	30
11	Choice as a principle in network architecture. , 2012, , .		30
12	Toward Proper Guard Zones for Link Signature. IEEE Transactions on Wireless Communications, 2016, 15, 2104-2117.	9.2	27
13	Zero-determinant Strategies for Multi-player Multi-action Iterated Games. IEEE Signal Processing Letters, 2016, 23, 311-315.	3.6	24
14	Benefits of Multiple Battery Levels for the Lifetime of Large Wireless Sensor Networks. Lecture Notes in Computer Science, 2005, , 1440-1444.	1.3	21
15	A Unified Software Architecture to Enable Cross-Layer Design in the Future Internet. , 2007, , .		18
16	Measurements and Analysis of M/M/1 and M/M/c Queuing Models of the SIP Proxy Server. , 2009, , .		17
17	Choice as a principle in network architecture. Computer Communication Review, 2012, 42, 105-106.	1.8	17
18	A Dynamic Recursive Unified Internet Design (DRUID). Computer Networks, 2011, 55, 919-935.	5.1	16

#	ARTICLE	IF	CITATIONS
19	Centrality-based power control for hot-spot mitigation in multi-hop wireless networks. Computer Communications, 2012, 35, 1074-1085.	5.1	16
20	Comparative Study of M/M/1 and M/D/1 Models of a SIP Proxy Server. , 2008, , .		14
21	Performance and scalability of M/M/c based queuing model of the SIP Proxy Server - a practical approach. , 2009, , .		12
22	A hierarchical model for multigranular optical networks. , 2008, , .		11
23	Dynamic IDS Configuration in the Presence of Intruder Type Uncertainty. , 2015, , .		11
24	AERPAW emulation overview and preliminary performance evaluation. Computer Networks, 2021, 194, 108083.	5.1	11
25	Design of a protocol to enable economic transactions for network services. , 2015, , .		9
26	An Experimental Research Platform Architecture for UAS Communications and Networking. , 2019, , .		9
27	Traffic grooming in WDM ring networks to minimize the maximum electronic port cost. Optical Switching and Networking, 2005, 2, 1-18.	2.0	8
28	Comparative Study of Secure vs. Non-secure Transport Protocols on the SIP Proxy Server Performance: An Experimental Approach. , 2010, , .		8
29	A Verification Service Architecture for the Future Internet. , 2013, , .		8
30	AERPAW Emulation Overview. , 2020, , .		8
31	Traffic grooming in path, star, and tree networks. , 2003, , .		7
32	Loner links aware routing and scheduling in Wireless Mesh Networks. , 2008, , .		7
33	A stochastic multi-channel spectrum access game with incomplete information. , 2015, , .		7
34	Design of Wireless Mesh Networks under the Additive Interference Model. Computer Communications and Networks (IC3N), Proceedings of the IEEE International Conference on, 2006, , .	0.0	6
35	Impact of power control on capacity of large scale Wireless Mesh Networks. , 2009, , .		6
36	A study of performance and scalability metrics of a SIP proxy server " a practical approach. Journal of Computer and System Sciences, 2011, 77, 884-897.	1.2	6

#	ARTICLE	IF	CITATIONS
37	Impact of Power Control on Capacity of TDM-Scheduled Wireless Mesh Networks. , 2011, , .		6
38	Extending Openflow for Service Insertion and Payload Inspection. , 2014, , .		6
39	Impact of software obfuscation on susceptibility to Return-Oriented Programming attacks. , 2015, , .		6
40	A multi-player Markov stopping game for delay-tolerant and opportunistic resource sharing networks. , 2016, , .		6
41	GADFly: A Fast and Robust Algorithm to Detect P2P Botnets in Communication Graphs. , 2018, , .		6
42	Adaptive ad hoc self-organizing scheduling for quasi-periodic sensor network lifetime. Computer Communications, 2006, 29, 3366-3384.	5.1	5
43	Language of choice: On embedding choice-related semantics in a realizable protocol. , 2016, , .		5
44	Human Factors in Network Reliability Engineering. Journal of Network and Systems Management, 2018, 26, 686-722.	4.9	5
45	A Taxonomy and Survey on Experimentation Scenarios for Aerial Advanced Wireless Testbed Platforms. , 2021, , .		5
46	On the Suitability of Composable Services for the Assurable Future Internet. , 2007, , .		4
47	Hierarchical grooming in multigranular networks. , 2007, , .		4
48	Impact of Power Control on Relay Load Balancing in Wireless Sensor Networks. , 2010, , .		4
49	The human factor: A challenge for network reliability design. , 2015, , .		4
50	Inception to application: A GENI based prototype of an open Marketplace for network services. , 2016, , .		4
51	Collaborative botnet detection with partial communication graph information. , 2017, , .		4
52	A Graded Approach to Network Forensics with Privacy Concerns. , 2019, , .		4
53	Aerial Experimentation and Research Platform for Mobile Communications and Computing. , 2019, , .		4
54	Traffic Analysis in Support of Hybrid SDN Campus Architectures for Enhanced Cybersecurity. , 2021, , .		4

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55	Clustering for Hierarchical Traffic Grooming in Large Scale Mesh WDM Networks. , 2007, , 249-258.		4
56	On optimal traffic grooming in WDM rings. Performance Evaluation Review, 2001, 29, 164-174.	0.6	3
57	Spare capacity provisioning for quasi-static traffic. Computer Networks, 2007, 51, 5011-5035.	5.1	3
58	Hierarchical Traffic Grooming. Optical Networks Series, 2008, , 73-88.	1.1	3
59	Performance Measurements and Analysis of M/M/c Queuing Model Based SIP Proxy Servers in Local and Wide Area Networks. , 2010, , .		3
60	Spatially Diffuse Pathsets for Robust Routing in Ad Hoc Networks. , 2011, , .		3
61	Converging choice and service in future commodity optical networks using traffic grooming. , 2013, , .		3
62	Grooming demands instead of traffic: Benefits of a choice-based approach to Green optical networks. , 2014, , .		3
63	On Availability-Performability Tradeoff in Wireless Mesh Networks. IEEE Transactions on Mobile Computing, 2015, 14, 606-618.	5.8	3
64	Network service orchestration in heterogeneous 5G networks using an open marketplace. IET Networks, 2017, 6, 149-156.	1.8	3
65	Improved P2P Botnet Community Detection: Combining Modularity and Strong Community. , 2019, , .		3
66	Spare Capacity Provisioning for Dynamic Traffic Grooming in Optical Networks. , 2006, , .		2
67	Complexity of path traffic grooming. Journal of Optical Networking, 2007, 6, 1270.	2.5	2
68	A new internet architecture to enable software defined optics and evolving optical switching models. , 2008, , .		2
69	Minimizing transceivers in optical path networks. Journal of Optical Networking, 2009, 8, 454.	2.5	2
70	Using Centrality-Based Power Control for Hot-Spot Mitigation in Wireless Networks. , 2010, , .		2
71	A Leader-Follower Controlled Markov Stopping Game for Delay Tolerant and Opportunistic Resource Sharing Networks. IEEE Journal on Selected Areas in Communications, 2017, 35, 615-627.	14.0	2
72	On service composition algorithm for Open Marketplaces of network services. , 2017, , .		2

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73	Cooperative trajectory planning in an intercommunicating group of UAVs for convex plume wrapping. , 2017, , .		2
74	Recovering an OSPF Network from Malicious Attacks: An Experimental Evaluation of Recovery Techniques. , 2018, , .		2
75	Performance Implications of Problem Decomposition Approaches for SDN Pipelines. , 2020, , .		2
76	The AERPAW Experiment Workflow - Considerations for Designing Usage Models for a Computing-supported Physical Research Platform. , 2022, , .		2
77	Complexity of Converter Placement Supporting Broadcast in WDM Networks. , 2006, , .		1
78	Differential capacity p-Cycles: A p-Cycle variant with increased capacity efficiency. Optical Switching and Networking, 2010, 7, 185-195.	2.0	1
79	Packet aggregation based back-pressure scheduling in multi-hop wireless networks. , 2012, , .		1
80	Reliability prediction of diffused pathset routing in wireless multihop networks. , 2014, , .		1
81	A GENI Meso-Scale Experiment of a Verification Service. , 2014, , .		1
82	Evaluating Different Pricing Algorithms for a Flexible Optical Choice-Based Network. , 2017, , .		1
83	Toward realizing choice-based co-optimizable networking paradigm. , 2017, , .		1
84	Towards Privacy-Aware Collaborative Security: A Game-Theoretic Approach. , 2017, , .		1
85	Designing and experimentally demonstrating automatic OPS/OCS/OpenFlow network control driven by ChoiceNet provider. Photonic Network Communications, 2018, 36, 43-55.	2.7	1
86	Identifying P2P Communities in Network Traffic Using Measures of Community Connections : IEEE CNS 20 Poster. , 2020, , .		1
87	Traffic-partitioning approaches to grooming ring access networks. Journal of Optical Networking, 2005, 4, 602.	2.5	0
88	MF-TCP : Design and evaluation of TCP for message ferry delay tolerant networks. , 2009, , .		0
89	Differential Capacity p-Cycles: A p-Cycle variant with increased capacity efficiency. , 2009, , .		0
90	Architectural support for Internet evolution and innovation. , 2010, , .		0

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91	Benefits of Multi Wavelength Approach to Converter Placement to Support Broadcast with Available Wavelengths. , 2011, , .		0
92	Joint Design. Signals and Communication Technology, 2013, , 133-168.	0.5	0
93	Using linear system reliability to obtain theoretical understanding of wireless routing. , 2014, , .		0
94	Dynamic IDS Configuration in the Presence of Intruder Type Uncertainty. , 2014, , .		0
95	Special Issue on Survivable and Resilient Communication Networks and Services. Journal of Network and Systems Management, 2016, 24, 445-448.	4.9	0
96	Role of Provider Strategies and Granularity in a Circuit-Packet Optical Choice-based Network. , 2018, , .		0
97	Service Provisioning within a Choice-Based Network. , 2018, , .		0
98	Traffic Grooming. Springer Handbooks, 2020, , 513-534.	0.6	0