Subrat Kar

List of Publications by Year
in descending order

148 papers	1,401 citations	430874 18 h-index	454955 30 g-index
152 all docs	152 docs citations	152 times ranked	957 citing authors

#	ARTICLE	IF	CITATIONS
1	Free Space Optical Communication. Optical Networks Series, 2017, , .	1.1	190
2	Performance Analysis of FSO Array Receivers in Presence of Atmospheric Turbulence. IEEE Photonics Technology Letters, 2014, 26, 1165-1168.	2.5	67
3	Experimental Study on Beam Wander Under Varying Atmospheric Turbulence Conditions. IEEE Photonics Technology Letters, 2011, 23, 1691-1693.	2.5	65
4	Analysis of earth‐to‐satellite free‐space optical link performance in the presence of turbulence, beam‐wander induced pointing error and weather conditions for different intensity modulation schemes. IET Communications, 2015, 9, 2253-2258.	2.2	55
5	WHOP: Wormhole attack detection protocol using hound packet. , 2011, , .		44
6	Performance analysis of free space optical links using multi‐input multi‐output and aperture averaging in presence of turbulence and various weather conditions. IET Communications, 2015, 9, 1104-1109.	2.2	39
7	Experimental investigation of optimum beam size for FSO uplink. Optics Communications, 2017, 400, 106-114.	2.1	33
8	Automation of Agriculture Support Systems using Wisekar: Case study of a crop-disease advisory service. Computers and Electronics in Agriculture, 2016, 122, 200-210.	7.7	31
9	Detection of an Intruder and Prediction of His State of Motion by Using Seismic Sensor. IEEE Sensors Journal, 2018, 18, 703-712.	4.7	31
10	Modeling the analog response of passive infrared sensor. Sensors and Actuators A: Physical, 2018, 279, 65-74.	4.1	31
11	Free-Space Optical Channel Models. Optical Networks Series, 2017, , 41-89.	1.1	30
12	Effect of atmospheric conditions and aperture averaging on capacity of free space optical links. Optical and Quantum Electronics, 2014, 46, 1139-1148.	3.3	28
13	Performance enhancement by aperture averaging in terrestrial and satellite free space optical links. IET Optoelectronics, 2016, 10, 111-117.	3.3	26
14	Person Identification and Imposter Detection Using Footstep Generated Seismic Signals. IEEE Transactions on Instrumentation and Measurement, 2021, 70, 1-11.	4.7	26
15	A hybrid trust management framework for a multi-service social IoT network. Computer Communications, 2021, 171, 61-79.	5.1	24
16	Performance of free space optical links in presence of turbulence, pointing errors and adverse weather conditions. Optical and Quantum Electronics, 2016, 48, 1.	3.3	22
17	Effect of Four-Wave Mixing on Optimal Placement of Optical Amplifier in WDM Star Networks. Fiber and Integrated Optics, 2006, 25, 111-140.	2.5	21
18	Ground-to-Satellite Optical Communication Link Performance with Spatial Diversity in Weak Atmospheric Turbulence. Fiber and Integrated Optics, 2010, 29, 315-340.	2.5	20

#	ARTICLE	IF	CITATIONS
19	Capacity of free space optical links with spatial diversity and aperture averaging. , 2014, , .		19
20	UREDT: Unsupervised Learning Based Real-Time Footfall Event Detection Technique in Seismic Signal. , 2018, 2, 1-4.		19
21	Performance improvement of FSO satellite downlink using aperture averaging and receiver spatial diversity. IET Optoelectronics, 2016, 10, 119-127.	3.3	18
22	Aperture averaging and receiver diversity for FSO downlink in presence of atmospheric turbulence and weather conditions for OOK, M-PPM and M-DPPM schemes. Optical and Quantum Electronics, 2016, 48, 1.	3.3	18
23	Traffic Model and Performance Analysis of Cellular Mobile Systems for General Distributed Handoff Traffic and Dynamic Channel Allocation. IEEE Transactions on Vehicular Technology, 2008, 57, 3629-3640.	6.3	17
24	Performance evaluation of localization techniques in wireless sensor networks using RSSI and LQI. , 2015, , .		17
25	Performance of All-optical WDM Network in Presence of Four-wave Mixing, Optical Amplifier Noise, and Wavelength Converter Noise. Fiber and Integrated Optics, 2007, 26, 79-97.	2.5	16
26	BAAP: Blackhole attack avoidance protocol for wireless network. , 2011, , .		16
27	Novel RSSI evaluation models for accurate indoor localization with sensor networks. , 2014, , .		16
28	Effect of link margin and frequency granularity on the performance of a flexgrid optical network. Optics Express, 2014, 22, 41.	3.4	15
29	Network Equipment and Their Procurement Strategy for High Capacity Elastic Optical Networks. Journal of Optical Communications and Networking, 2016, 8, A201.	4.8	15
30	Temperature sensor based ultra low cost respiration monitoring system. , 2017, , .		15
31	Evaluation of performance of ground to satellite free space optical link under turbulence conditions for different intensity modulation schemes. Proceedings of SPIE, 2014, , .	0.8	14
32	Novel Strategies for Reducing FWM Using Modified Repeated Unequally Spaced Channel Allocation. Fiber and Integrated Optics, 2004, 23, 415-437.	2.5	13
33	BER performance improvement of FSO links with aperture averaging and receiver diversity technique under various atmospheric conditions. , 2014, , .		13
34	Performance of 1â€Ð and 2â€Ð OCDMA systems in presence of atmospheric turbulence and various weather conditions. IET Communications, 2017, 11, 1416-1422.	2.2	12
35	Indoor localization using analog output of pyroelectric infrared sensors. , 2018, , .		12
36	RSS-Based Localization in the Presence of Malicious Nodes in Sensor Networks. IEEE Transactions on Instrumentation and Measurement, 2021, 70, 1-16.	4.7	12

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37	Acquisition, Tracking, and Pointing. Optical Networks Series, 2017, , 119-137.	1.1	11
38	Wireless Sensor Knowledge Archive. , 2013, , .		10
39	Adaptive coding and modulation (ACM) technique for performance enhancement of FSO Link. , 2016, , .		10
40	A novel approach for finding optimal number of cluster head in wireless sensor network. , 2011, , .		9
41	Performance Analysis of Ground to Satellite FSO System with DAPPM Scheme in Weak Atmospheric Turbulence. , 2012, , .		9
42	Reducing session establishment delay using timed out packets in SIP signaling network. International Journal of Communication Systems, 2016, 29, 262-276.	2.5	9
43	Reduction in transmitter power requirement for earth-to-satellite and satellite-to-earth free space optical links with spatial diversity. Optical and Quantum Electronics, 2018, 50, 1.	3.3	9
44	Robust Range-Based Secure Localization in Wireless Sensor Networks. , 2018, , .		9
45	Signal Strength-Based Cooperative Sensor Network Localization Using Convex Relaxation. IEEE Wireless Communications Letters, 2020, 9, 2207-2211.	5.0	9
46	Performance Comparison of PIN and APD based FSO Satellite Systems for various Pulse Modulation Schemes in Atmospheric Turbulence. Communications and Network, 2013, 05, 200-203.	0.8	9
47	Forward error correcting codes in fiber-optic synchronous code-division multiple access networks. Optics Communications, 2002, 202, 287-296.	2.1	8
48	Improvement of ground to satellite fso link performance using transmit diversity in weak atmospheric turbulence. , 2010, , .		8
49	Performance evaluation of different Pulse Position Modulation schemes in atmospheric turbulence channel for ground-to-satellite optical communication. , 2012, , .		8
50	Overview of Wireless Optical Communication Systems. Optical Networks Series, 2017, , 1-39.	1.1	8
51	Evaluation of the performance of FSO system using OOK and M-PPM modulation schemes in inter-satellite links with turbo codes. , 2011, , .		7
52	Predicting gender from footfalls using a seismic sensor. , 2017, , .		7
53	IoT Based Wearable Knitted Fabric Respiratory Monitoring System. , 2018, , .		7
54	Effect of Link Margins and Frequency Granularity on the Performance and Modulation Format Sweet Spot of Multiple Flexgrid Optical Networks. , 2014, , .		6

#	ARTICLE	IF	CITATIONS
55	Development of a wireless sensor network for animal management: Experiences with Moosense. , 2014, , .		6
56	Design and Implementation of MOEMS Based Ground to Satellite Free Space Optical Link Under Turbulence Condition. Procedia Computer Science, 2015, 46, 1216-1222.	2.0	6
57	Spectral analysis of intensity modulation schemes in free space optical communications. IET Communications, 2015, 9, 909-916.	2.2	6
58	Performance Analysis of FSO Communication Using Different Coding Schemes. , 2011, , .		5
59	A scriptable rapid application deployment framework for sensor networks. , 2013, , .		5
60	Modulation techniques used in earth-to-satellite and inter-satellite free space optical links. Proceedings of SPIE, 2014, , .	0.8	5
61	Comparison of Aperture Averaging and Receiver Diversity Techniques for Free Space Optical Links in Presence of Turbulence and Various Weather Conditions. Journal of Optical Communications, 2014, 35, .	4.7	5
62	Effect of frequency granularity and Link Margin at 100G and beyond Flexgrid Optical Networks. , 2014, , .		5
63	Experimental evaluation of the effect of aperture averaging technique on the performance of free space optical communication link for different intensity modulation schemes. , 2015, , .		5
64	Design and Development of a Distributed Mobile Sensing Based Crowd Evacuation System: A Big Actor Approach. , 2015, , .		5
65	Analysis of beam wander effect in high turbulence for FSO communication link. IET Communications, 2018, 12, 2533-2537.	2.2	5
66	Person Identification and Imposter Detection using Footfall based Biometric System. , 2019, , .		5
67	Energy efficient routing in wireless sensor networks via circulating operator packets. Wireless Networks, 2019, 25, 3063-3080.	3.0	5
68	Person Identification Using Structural Vibrations via Footfalls for Smart Home Applications. IEEE Internet of Things Journal, 2021, 8, 13384-13396.	8.7	5
69	Impact of WSS Passband Narrowing Effect on the Capacity of the Flexible-spectrum Networks. , 2017, , .		5
70	Performance evaluation of PIN+OA and APD receivers in multi-wavelength CDMA and WaCDMA networks. Optics Communications, 2001, 191, 55-66.	2.1	4
71	Performance Modeling of Cellular Mobile Systems: A Review of Recent Advances. IETE Technical Review (Institution of Electronics and Telecommunication Engineers, India), 2010, 27, 15.	3.2	4
72	Experimental study on aperture averaging in free space optical communication link. , 2013, , .		4

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73	Performance analysis of OOK modulation scheme with spatial diversity in atmospheric turbulence. , 2014, , .		4
74	Interface Personalization through Inclusive User Modelling Web Service. , 2014, , .		4
75	Performance enhancement of free space optical satellite uplink with transmitter spatial diversity technique. Optical and Quantum Electronics, 2016, 48, 1.	3.3	4
76	Performance analysis of wireless OCDMA multi-user system based on new 2-D code in presence of atmospheric turbulence and various weather conditions. , 2017, , .		4
77	Utilizing Social Networks Data for Trust Management in a Social Internet of Things Network. , 2018, , .		4
78	Analysis of energy efficiency in cloud based heterogeneous RAN with large-scale antenna systems. Computer Networks, 2019, 149, 265-276.	5.1	4
79	Performance enhancement of double hard limited 2D atmospheric OCDMA system using aperture averaging and spatial diversity. IET Communications, 2019, 13, 585-593.	2.2	4
80	A Novel Algorithm for Graded Precision Localization in Wireless Sensor Networks. , 2009, , .		3
81	Scriptable Sensor Network Applications for Rapid Development of Internet of Things. Network Protocols and Algorithms, 2014, 6, 37.	1.0	3
82	Non-linear impairment modeling for flexgrid network and its application in offline network equipment upgrade strategy. , 2015, , .		3
83	Adaptive Transmission Power Protocol for heterogeneous Wireless Sensor Networks. , 2015, , .		3
84	Transmitter Spatial Diversity for FSO Uplink in Presence of Atmospheric Turbulence and Weather Conditions for Different IM Schemes. Journal of Optical Communications, 2017, 39, .	4.7	3
85	Performance enhancement of a novel 2-D code based atmospheric OCDMA system. , 2018, , .		3
86	GMM-UBM based Person Verification using footfall signatures for Smart Home Applications. , 2019, , .		3
87	Performance analysis of a new OCFHC/QCC visâ€ â€vis synchronous PC/OOC code using photon count approach. IET Optoelectronics, 2019, 13, 77-84.	3.3	3
88	Performance Analysis Of An Improved Graded Precision Localization Algorithm For Wireless Sensor Networks. International Journal of Computer Networks and Communications, 2010, 2, 150-159.	0.3	3
89	RSS-Based Cooperative Localization and Edge Node Detection. IEEE Transactions on Vehicular Technology, 2022, 71, 5387-5403.	6.3	3
90	A Simulated Annealing Based Routing Sub-Heuristic for the Indirect Star Based ATM Network. IETE Journal of Research, 1999, 45, 293-298.	2.6	2

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91	Analysis of UMTS radio channel access delay. Computer Communications, 2008, 31, 1877-1889.	5.1	2
92	Design of a novel light-weight hardware module for wireless programming of resource-constrained embedded systems. , 2012, , .		2
93	Performance analysis and redundancy implementation of open source embedded router. , 2012, , .		2
94	Effect of Link Margin on spectrum saving and advantages of flexgrid optical networking. , 2013, , .		2
95	Pratham: A Low-Cost Wireless Node with Programmable Radio Range and Over-the-Air Programming Capability for Resource-Constrained Applications. , 2014, , .		2
96	Upgrading to low loss ROADMs and additional line amplifiers for increased capacity in EDFA and Raman flexgrid networks. , 2014, , .		2
97	A new family of 2-D codes for multimedia applications. , 2015, , .		2
98	Performance evaluation of graded precision localization with sensor networks in indoor spaces. Computers and Electrical Engineering, 2015, 48, 258-269.	4.8	2
99	Performance evaluation of satellite-to-earth FSO link in presence of turbulence and weather conditions for different IM schemes. , 2016, , .		2
100	Analysis of traffic offload using multiâ€attribute decision making technique in heterogeneous shared networks. IET Networks, 2019, 8, 256-263.	1.8	2
101	Performance Evaluation of Fiber-optic Synchronous Code Division Multiple Access Networks with Parallel Cancellation Scheme for PIN+OA receiver. Journal of Optical Communications, 2001, 22, .	4.7	1
102	Review of Physical Layer Related Issues in WDM Networks: Partâ€"1. IETE Journal of Research, 2004, 50, 257-268.	2.6	1
103	A comparative study of modified PUSCA and paired PUSCA strategies in WDM system. Optics Communications, 2006, 267, 215-223.	2.1	1
104	Modeling and analysis of the optical burst switching network. Journal of Optical Networking, 2007, 6, 239.	2.5	1
105	Acquisition time for laser uplink communication to space-borne satellite using transmit diversity in atmospheric turbulence. , 2010, , .		1
106	Turbulence Characterization for Ground to Satellite MEMS Based Free Space Optical Communication System in Weak Atmospheric Turbulence Condition. , 2011, , .		1
107	Performance Improvement with Coding of Free Space Optical Ground to Satellite Link in Atmospheric Turbulence Environment. , 2011, , .		1
108	Effects of Turbulence on Beam Propagation in an OTG Chamber and Transmitted Beam Width Optimization. , 2012, , .		1

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109	On implementing graded precision localization with sensor networks in indoor spaces. , 2013, , .		1
110	Performance improvement techniques for optical wireless link in presence of atmospheric turbulence. Proceedings of SPIE, 2013, , .	0.8	1
111	FSO System Modules and Design Issues. Optical Networks Series, 2017, , 91-118.	1.1	1
112	Control and Management of Optical Networks Using Optical Network Description Language. , 2018, , .		1
113	Analysis of Mid-Haul Characteristics for LTE-NR Multi-Connectivity in Heterogeneous Cloud RAN. , 2019, , .		1
114	Performance Analysis of a Novel 2-D Code in the Network Access Segment. Journal of Optical Communications, 2020, 41, 411-419.	4.7	1
115	Signaling Packet Aggregation and Compression in SIP Network: Modeling and Performance Evaluation. Wireless Personal Communications, 2020, 110, 651-676.	2.7	1
116	A Neighborhood Overlap Based Approach for Service Provider Prioritization in a Directed Social IoT Service Network. , 2020, , .		1
117	Invex Relaxation Based Cooperative Localization Using RSS Measurements. IEEE Transactions on Communications, 2022, 70, 5482-5497.	7.8	1
118	Some Novel Photonic Guided-Wave Space-Switching Architectures. IETE Journal of Research, 1990, 36, 513-519.	2.6	0
119	Generation of Ti:LiNbO 3 Directional Coupler Based Photonic Switching Architectures With Optimal Substrate Real Estate Utilization. Proceedings of SPIE, 1990, , .	0.8	0
120	Code Division Multiple Access in Fiber Optic Networks. IETE Journal of Education Online, 1997, 38, 167-173.	0.6	0
121	Performance of fiber optic CDMA LANs with less-than-ideal components. , 1998, 3491, 513.		0
122	Enabling Voice Over the Internet. IETE Journal of Research, 1999, 45, 151-165.	2.6	0
123	<title>All-optical CDMA-based packet-switching element for ATM networks</title>. , 1999, , .		0
124	Performance analysis of a fiber optic CDMA LAN using a time-domain system model. , 2000, 4087, 37.		0
125	Statistical Self-Similarity in Broadband Traffic: Results and Performance Implications. IETE Technical Review (Institution of Electronics and Telecommunication Engineers, India), 2000, 17, 29-36.	3.2	0
126	The Common Object Request Broker Architecture (CORBA) and its Notification Service. IETE Technical Review (Institution of Electronics and Telecommunication Engineers, India), 2002, 19, 31-45.	3.2	0

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127	Advance Resource Reservation in High Speed Communication Networks: A Survey. IETE Technical Review (Institution of Electronics and Telecommunication Engineers, India), 2003, 20, 319-332.	3.2	0
128	Performance Enhanced Asynchronous Optical CDMA Systems using Double Hard-limiters and FEC Codes. Journal of Optical Communications, 2004, 25, .	4.7	0
129	Review of Physical Layer Related Issues in WDM Networks: Part-II. IETE Journal of Research, 2004, 50, 269-280.	2.6	0
130	Advance Resource Reservation Protocols: Applications in Mobile Networks. IETE Journal of Research, 2006, 52, 215-227.	2.6	0
131	Analysis of GPRS Radio Channel Access Delay. , 2007, , .		0
132	Network Design and Performance Evaluation of an Early Warning Network. , 2007, , .		0
133	Platform broker architectutre: A framework for programmable smart spaces. , 2010, , .		0
134	Acquisition Time for Ground-to-Satellite Optical Communication System in Weak Atmospheric Turbulence with Spatial Diversity. Fiber and Integrated Optics, 2010, 29, 358-380.	2.5	0
135	Study on FEC schemes for optical communication systems. , 2013, , .		0
136	Modifying open source tools for video pre-processing to achieve ultra low bandwidth for video surveillance over delay tolerant networks. , 2013, , .		0
137	Personalized Multimodal Geo-visualization through Inclusive User Modelling. Lecture Notes in Computer Science, 2014, , 279-287.	1.3	0
138	Enhanced inherent survivability to link failures at low link margin in a flexgrid optical network. , 2015, , .		0
139	BER Performance of FSO System. Optical Networks Series, 2017, , 139-160.	1.1	0
140	Link Performance Improvement Techniques. Optical Networks Series, 2017, , 161-195.	1.1	0
141	Link Feasibility Study. Optical Networks Series, 2017, , 197-204.	1.1	0
142	Capacity Improvement of a Free Space Optical Satellite Uplink using Transmitter Power and Rate Adaptation. Journal of Optical Communications, 2017, 38, .	4.7	0
143	Analysis of Computational Complexity and Power Consumption in Cloud Based Heterogeneous RAN. , 2018, , .		0
144	Analysis of Beam Wander Effect of Flat-topped Multi-Gaussian Beam for FSO Communication Link. , 2019, , .		0

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145	Dynamic Configuration of Optical Physical Layer Using SDN and Optical Network Description Language. , 2019, , .		0
146	Delay Efficient Load Balancing Scheme for Component Carrier Selection in Carrier Aggregation in LTE-A. EAI/Springer Innovations in Communication and Computing, 2019, , 151-163.	1.1	0
147	Development of an Automated Monitoring and Warning System for Landslide Prone Sites. Communications in Computer and Information Science, 2021, , 66-77.	0.5	0
148	Performance evaluation of region estimation with reactive routing in wireless sensor networks. International Journal of Sensor Networks, 2016, 22, 87.	0.4	0