

Subrat Kar

List of Publications by Year in descending order

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Version: 2024-02-01

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 | RSS-Based Cooperative Localization and Edge Node Detection. IEEE Transactions on Vehicular Technology, 2022, 71, 5387-5403. | 6.3 | 3 |
| 2 | Invex Relaxation Based Cooperative Localization Using RSS Measurements. IEEE Transactions on Communications, 2022, 70, 5482-5497. | 7.8 | 1 |
| 3 | Person Identification and Imposter Detection Using Footstep Generated Seismic Signals. IEEE Transactions on Instrumentation and Measurement, 2021, 70, 1-11. | 4.7 | 26 |
| 4 | 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 |
| 5 | A hybrid trust management framework for a multi-service social IoT network. Computer Communications, 2021, 171, 61-79. | 5.1 | 24 |
| 6 | Person Identification Using Structural Vibrations via Footfalls for Smart Home Applications. IEEE Internet of Things Journal, 2021, 8, 13384-13396. | 8.7 | 5 |
| 7 | Development of an Automated Monitoring and Warning System for Landslide Prone Sites. Communications in Computer and Information Science, 2021, , 66-77. | 0.5 | 0 |
| 8 | Performance Analysis of a Novel 2-D Code in the Network Access Segment. Journal of Optical Communications, 2020, 41, 411-419. | 4.7 | 1 |
| 9 | Signaling Packet Aggregation and Compression in SIP Network: Modeling and Performance Evaluation. Wireless Personal Communications, 2020, 110, 651-676. | 2.7 | 1 |
| 10 | Signal Strength-Based Cooperative Sensor Network Localization Using Convex Relaxation. IEEE Wireless Communications Letters, 2020, 9, 2207-2211. | 5.0 | 9 |
| 11 | A Neighborhood Overlap Based Approach for Service Provider Prioritization in a Directed Social IoT Service Network. , 2020, , . | | 1 |
| 12 | Analysis of Mid-Haul Characteristics for LTE-NR Multi-Connectivity in Heterogeneous Cloud RAN. , 2019, , . | | 1 |
| 13 | Analysis of Beam Wander Effect of Flat-topped Multi-Gaussian Beam for FSO Communication Link. , 2019, , . | | 0 |
| 14 | GMM-LBM based Person Verification using footfall signatures for Smart Home Applications. , 2019, , . | | 3 |
| 15 | Dynamic Configuration of Optical Physical Layer Using SDN and Optical Network Description Language. , 2019, , . | | 0 |
| 16 | Person Identification and Imposter Detection using Footfall based Biometric System. , 2019, , . | | 5 |
| 17 | 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 |
| 18 | Performance analysis of a new OCFHC/QCC visâ€œvis synchronous PC/OOC code using photon count approach. IET Optoelectronics, 2019, 13, 77-84. | 3.3 | 3 |

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| 19 | Analysis of energy efficiency in cloud based heterogeneous RAN with large-scale antenna systems. Computer Networks, 2019, 149, 265-276. | 5.1 | 4 |
| 20 | Energy efficient routing in wireless sensor networks via circulating operator packets. Wireless Networks, 2019, 25, 3063-3080. | 3.0 | 5 |
| 21 | 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 |
| 22 | Analysis of traffic offload using multi-attribute decision making technique in heterogeneous shared networks. IET Networks, 2019, 8, 256-263. | 1.8 | 2 |
| 23 | 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 |
| 24 | URED: Unsupervised Learning Based Real-Time Footfall Event Detection Technique in Seismic Signal. , 2018, 2, 1-4. | | 19 |
| 25 | 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 |
| 26 | Robust Range-Based Secure Localization in Wireless Sensor Networks. , 2018, , . | | 9 |
| 27 | Analysis of Computational Complexity and Power Consumption in Cloud Based Heterogeneous RAN. , 2018, , . | | 0 |
| 28 | Control and Management of Optical Networks Using Optical Network Description Language. , 2018, , . | | 1 |
| 29 | Analysis of beam wander effect in high turbulence for FSO communication link. IET Communications, 2018, 12, 2533-2537. | 2.2 | 5 |
| 30 | IoT Based Wearable Knitted Fabric Respiratory Monitoring System. , 2018, , . | | 7 |
| 31 | Indoor localization using analog output of pyroelectric infrared sensors. , 2018, , . | | 12 |
| 32 | Utilizing Social Networks Data for Trust Management in a Social Internet of Things Network. , 2018, , . | | 4 |
| 33 | Modeling the analog response of passive infrared sensor. Sensors and Actuators A: Physical, 2018, 279, 65-74. | 4.1 | 31 |
| 34 | Performance enhancement of a novel 2-D code based atmospheric OCDMA system. , 2018, , . | | 3 |
| 35 | Free Space Optical Communication. Optical Networks Series, 2017, , . | 1.1 | 190 |
| 36 | Overview of Wireless Optical Communication Systems. Optical Networks Series, 2017, , 1-39. | 1.1 | 8 |

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| 37 | Free-Space Optical Channel Models. Optical Networks Series, 2017, , 41-89. | 1.1 | 30 |
| 38 | FSO System Modules and Design Issues. Optical Networks Series, 2017, , 91-118. | 1.1 | 1 |
| 39 | Acquisition, Tracking, and Pointing. Optical Networks Series, 2017, , 119-137. | 1.1 | 11 |
| 40 | BER Performance of FSO System. Optical Networks Series, 2017, , 139-160. | 1.1 | 0 |
| 41 | Link Performance Improvement Techniques. Optical Networks Series, 2017, , 161-195. | 1.1 | 0 |
| 42 | Link Feasibility Study. Optical Networks Series, 2017, , 197-204. | 1.1 | 0 |
| 43 | Temperature sensor based ultra low cost respiration monitoring system. , 2017, , . | | 15 |
| 44 | Capacity Improvement of a Free Space Optical Satellite Uplink using Transmitter Power and Rate Adaptation. Journal of Optical Communications, 2017, 38, . | 4.7 | 0 |
| 45 | Experimental investigation of optimum beam size for FSO uplink. Optics Communications, 2017, 400, 106-114. | 2.1 | 33 |
| 46 | 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 |
| 47 | Performance of 1â€œ and 2â€œ OCDMA systems in presence of atmospheric turbulence and various weather conditions. IET Communications, 2017, 11, 1416-1422. | 2.2 | 12 |
| 48 | Predicting gender from footfalls using a seismic sensor. , 2017, , . | | 7 |
| 49 | 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 |
| 50 | Impact of WSS Passband Narrowing Effect on the Capacity of the Flexible-spectrum Networks. , 2017, , . | | 5 |
| 51 | Reducing session establishment delay using timed out packets in SIP signaling network. International Journal of Communication Systems, 2016, 29, 262-276. | 2.5 | 9 |
| 52 | Performance improvement of FSO satellite downlink using aperture averaging and receiver spatial diversity. IET Optoelectronics, 2016, 10, 119-127. | 3.3 | 18 |
| 53 | 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 |
| 54 | Network Equipment and Their Procurement Strategy for High Capacity Elastic Optical Networks. Journal of Optical Communications and Networking, 2016, 8, A201. | 4.8 | 15 |

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| 55 | Performance enhancement of free space optical satellite uplink with transmitter spatial diversity technique. Optical and Quantum Electronics, 2016, 48, 1. | 3.3 | 4 |
| 56 | Performance evaluation of satellite-to-earth FSO link in presence of turbulence and weather conditions for different IM schemes. , 2016, , . | | 2 |
| 57 | 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 |
| 58 | Adaptive coding and modulation (ACM) technique for performance enhancement of FSO Link. , 2016, , . | | 10 |
| 59 | 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 |
| 60 | Performance enhancement by aperture averaging in terrestrial and satellite free space optical links. IET Optoelectronics, 2016, 10, 111-117. | 3.3 | 26 |
| 61 | Performance evaluation of region estimation with reactive routing in wireless sensor networks. International Journal of Sensor Networks, 2016, 22, 87. | 0.4 | 0 |
| 62 | A new family of 2-D codes for multimedia applications. , 2015, , . | | 2 |
| 63 | 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 |
| 64 | 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 |
| 65 | Enhanced inherent survivability to link failures at low link margin in a flexgrid optical network. , 2015, , . | | 0 |
| 66 | 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 |
| 67 | Performance evaluation of graded precision localization with sensor networks in indoor spaces. Computers and Electrical Engineering, 2015, 48, 258-269. | 4.8 | 2 |
| 68 | Non-linear impairment modeling for flexgrid network and its application in offline network equipment upgrade strategy. , 2015, , . | | 3 |
| 69 | Adaptive Transmission Power Protocol for heterogeneous Wireless Sensor Networks. , 2015, , . | | 3 |
| 70 | Performance evaluation of localization techniques in wireless sensor networks using RSSI and LQI. , 2015, , . | | 17 |
| 71 | 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 |
| 72 | Spectral analysis of intensity modulation schemes in free space optical communications. IET Communications, 2015, 9, 909-916. | 2.2 | 6 |

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| 73 | Design and Development of a Distributed Mobile Sensing Based Crowd Evacuation System: A Big Actor Approach. , 2015, , . | | 5 |
| 74 | Scriptable Sensor Network Applications for Rapid Development of Internet of Things. Network Protocols and Algorithms, 2014, 6, 37. | 1.0 | 3 |
| 75 | BER performance improvement of FSO links with aperture averaging and receiver diversity technique under various atmospheric conditions. , 2014, , . | | 13 |
| 76 | Pratham: A Low-Cost Wireless Node with Programmable Radio Range and Over-the-Air Programming Capability for Resource-Constrained Applications. , 2014, , . | | 2 |
| 77 | Effect of Link Margins and Frequency Granularity on the Performance and Modulation Format Sweet Spot of Multiple Flexgrid Optical Networks. , 2014, , . | | 6 |
| 78 | Upgrading to low loss ROADMs and additional line amplifiers for increased capacity in EDFA and Raman flexgrid networks. , 2014, , . | | 2 |
| 79 | Effect of link margin and frequency granularity on the performance of a flexgrid optical network. Optics Express, 2014, 22, 41. | 3.4 | 15 |
| 80 | Modulation techniques used in earth-to-satellite and inter-satellite free space optical links. Proceedings of SPIE, 2014, , . | 0.8 | 5 |
| 81 | Development of a wireless sensor network for animal management: Experiences with Moosense. , 2014, , . | | 6 |
| 82 | 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 |
| 83 | Personalized Multimodal Geo-visualization through Inclusive User Modelling. Lecture Notes in Computer Science, 2014, , 279-287. | 1.3 | 0 |
| 84 | 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 |
| 85 | 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 |
| 86 | Performance Analysis of FSO Array Receivers in Presence of Atmospheric Turbulence. IEEE Photonics Technology Letters, 2014, 26, 1165-1168. | 2.5 | 67 |
| 87 | Capacity of free space optical links with spatial diversity and aperture averaging. , 2014, , . | | 19 |
| 88 | Performance analysis of OOK modulation scheme with spatial diversity in atmospheric turbulence. , 2014, , . | | 4 |
| 89 | Effect of frequency granularity and Link Margin at 100G and beyond Flexgrid Optical Networks. , 2014, , . | | 5 |
| 90 | Novel RSSI evaluation models for accurate indoor localization with sensor networks. , 2014, , . | | 16 |

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| 91 | Interface Personalization through Inclusive User Modelling Web Service. , 2014, , . | | 4 |
| 92 | Wireless Sensor Knowledge Archive. , 2013, , . | | 10 |
| 93 | Study on FEC schemes for optical communication systems. , 2013, , . | | 0 |
| 94 | Modifying open source tools for video pre-processing to achieve ultra low bandwidth for video surveillance over delay tolerant networks. , 2013, , . | | 0 |
| 95 | A scriptable rapid application deployment framework for sensor networks. , 2013, , . | | 5 |
| 96 | On implementing graded precision localization with sensor networks in indoor spaces. , 2013, , . | | 1 |
| 97 | Effect of Link Margin on spectrum saving and advantages of flexgrid optical networking. , 2013, , . | | 2 |
| 98 | Experimental study on aperture averaging in free space optical communication link. , 2013, , . | | 4 |
| 99 | Performance improvement techniques for optical wireless link in presence of atmospheric turbulence. Proceedings of SPIE, 2013, , . | 0.8 | 1 |
| 100 | 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 |
| 101 | Effects of Turbulence on Beam Propagation in an OTG Chamber and Transmitted Beam Width Optimization. , 2012, , . | | 1 |
| 102 | Design of a novel light-weight hardware module for wireless programming of resource-constrained embedded systems. , 2012, , . | | 2 |
| 103 | Performance evaluation of different Pulse Position Modulation schemes in atmospheric turbulence channel for ground-to-satellite optical communication. , 2012, , . | | 8 |
| 104 | Performance analysis and redundancy implementation of open source embedded router. , 2012, , . | | 2 |
| 105 | Performance Analysis of Ground to Satellite FSO System with DAPPM Scheme in Weak Atmospheric Turbulence. , 2012, , . | | 9 |
| 106 | BAAP: Blackhole attack avoidance protocol for wireless network. , 2011, , . | | 16 |
| 107 | WHOP: Wormhole attack detection protocol using hound packet. , 2011, , . | | 44 |
| 108 | A novel approach for finding optimal number of cluster head in wireless sensor network. , 2011, , . | | 9 |

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| 109 | Experimental Study on Beam Wander Under Varying Atmospheric Turbulence Conditions. IEEE Photonics Technology Letters, 2011, 23, 1691-1693. | 2.5 | 65 |
| 110 | Performance Analysis of FSO Communication Using Different Coding Schemes. , 2011, , . | | 5 |
| 111 | Evaluation of the performance of FSO system using OOK and M-PPM modulation schemes in inter-satellite links with turbo codes. , 2011, , . | | 7 |
| 112 | Turbulence Characterization for Ground to Satellite MEMS Based Free Space Optical Communication System in Weak Atmospheric Turbulence Condition. , 2011, , . | | 1 |
| 113 | Performance Improvement with Coding of Free Space Optical Ground to Satellite Link in Atmospheric Turbulence Environment. , 2011, , . | | 1 |
| 114 | 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 |
| 115 | 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 |
| 116 | Platform broker architecture: A framework for programmable smart spaces. , 2010, , . | | 0 |
| 117 | Acquisition time for laser uplink communication to space-borne satellite using transmit diversity in atmospheric turbulence. , 2010, , . | | 1 |
| 118 | Improvement of ground to satellite fso link performance using transmit diversity in weak atmospheric turbulence. , 2010, , . | | 8 |
| 119 | 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 |
| 120 | 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 |
| 121 | A Novel Algorithm for Graded Precision Localization in Wireless Sensor Networks. , 2009, , . | | 3 |
| 122 | Analysis of UMTS radio channel access delay. Computer Communications, 2008, 31, 1877-1889. | 5.1 | 2 |
| 123 | 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 |
| 124 | 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 |
| 125 | Modeling and analysis of the optical burst switching network. Journal of Optical Networking, 2007, 6, 239. | 2.5 | 1 |
| 126 | Analysis of GPRS Radio Channel Access Delay. , 2007, , . | | 0 |

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| 127 | Network Design and Performance Evaluation of an Early Warning Network. , 2007, , . | | 0 |
| 128 | Advance Resource Reservation Protocols: Applications in Mobile Networks. IETE Journal of Research, 2006, 52, 215-227. | 2.6 | 0 |
| 129 | A comparative study of modified PUSCA and paired PUSCA strategies in WDM system. Optics Communications, 2006, 267, 215-223. | 2.1 | 1 |
| 130 | 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 |
| 131 | Performance Enhanced Asynchronous Optical CDMA Systems using Double Hard-limiters and FEC Codes. Journal of Optical Communications, 2004, 25, . | 4.7 | 0 |
| 132 | Novel Strategies for Reducing FWM Using Modified Repeated Unequally Spaced Channel Allocation. Fiber and Integrated Optics, 2004, 23, 415-437. | 2.5 | 13 |
| 133 | Review of Physical Layer Related Issues in WDM Networks: Part-1. IETE Journal of Research, 2004, 50, 257-268. | 2.6 | 1 |
| 134 | Review of Physical Layer Related Issues in WDM Networks: Part-II. IETE Journal of Research, 2004, 50, 269-280. | 2.6 | 0 |
| 135 | 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 |
| 136 | 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 |
| 137 | Forward error correcting codes in fiber-optic synchronous code-division multiple access networks. Optics Communications, 2002, 202, 287-296. | 2.1 | 8 |
| 138 | Performance evaluation of PIN+OA and APD receivers in multi-wavelength CDMA and WCDMA networks. Optics Communications, 2001, 191, 55-66. | 2.1 | 4 |
| 139 | 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 |
| 140 | Performance analysis of a fiber optic CDMA LAN using a time-domain system model. , 2000, 4087, 37. | | 0 |
| 141 | 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 |
| 142 | Enabling Voice Over the Internet. IETE Journal of Research, 1999, 45, 151-165. | 2.6 | 0 |
| 143 | <title>All-optical CDMA-based packet-switching element for ATM networks</title>. , 1999, , . | | 0 |
| 144 | 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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| 145 | Performance of fiber optic CDMA LANs with less-than-ideal components. , 1998, 3491, 513. | | 0 |
| 146 | Code Division Multiple Access in Fiber Optic Networks. IETE Journal of Education Online, 1997, 38, 167-173. | 0.6 | 0 |
| 147 | Some Novel Photonic Guided-Wave Space-Switching Architectures. IETE Journal of Research, 1990, 36, 513-519. | 2.6 | 0 |
| 148 | Generation of Ti:LiNbO ₃ Directional Coupler Based Photonic Switching Architectures With Optimal Substrate Real Estate Utilization. Proceedings of SPIE, 1990, , . | 0.8 | 0 |