

Shiva Kumar

List of Publications by Year in descending order

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46
papers

797
citations

706676

14
h-index

563245

28
g-index

61
all docs

61
docs citations

61
times ranked

721
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 1 | Free Space Ground to Satellite Optical Communications Using Kramersâ€“Kronig Transceiver in the Presence of Atmospheric Turbulence. <i>Sensors</i> , 2022, 22, 3435. | 2.1 | 7 |
| 2 | Adaptive digital back propagation exploiting adjoint-based optimization for fiber-optic communications. <i>Optics Express</i> , 2022, 30, 16264. | 1.7 | 1 |
| 3 | Software-Defined Fiber Optic Communications for Ultrahigh-Speed Optical Pulse Transmission Systems. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2022, 28, 1-10. | 1.9 | 2 |
| 4 | Natural Brain-Inspired Intelligence for Screening in Healthcare Applications. <i>IEEE Access</i> , 2021, 9, 67957-67973. | 2.6 | 6 |
| 5 | Optical Back Propagation For Fiber Optic Communication Systems. , 2021, , . | | 0 |
| 6 | A Raman-Pumped Dispersion and Nonlinearity Compensating Fiber For Fiber Optic Communications. <i>IEEE Photonics Journal</i> , 2020, 12, 1-17. | 1.0 | 16 |
| 7 | Natural Brain-Inspired Intelligence for Non-Gaussian and Nonlinear Environments with Finite Memory. <i>Applied Sciences (Switzerland)</i> , 2020, 10, 1150. | 1.3 | 6 |
| 8 | FDTD-Based Adjoint Sensitivity Analysis of High-Frequency Nonlinear Structures. <i>IEEE Transactions on Antennas and Propagation</i> , 2020, 68, 4727-4737. | 3.1 | 7 |
| 9 | Enhanced-power NFDM transmission system with midpoint optical phase conjugation. <i>Optics Letters</i> , 2020, 45, 4682. | 1.7 | 1 |
| 10 | Brain Inspired Dynamic System for the Quality of Service Control over the Long-Haul Nonlinear Fiber-Optic Link. <i>Sensors</i> , 2019, 19, 2175. | 2.1 | 9 |
| 11 | Cognitive decision making for the long-haul fiber optic communication systems. , 2019, , . | | 2 |
| 12 | Smart long-haul fiber optic communication systems using brain-like intelligence. , 2019, , . | | 5 |
| 13 | Brain-Inspired Cognitive Decision Making for Nonlinear and Non-Gaussian Environments. <i>IEEE Access</i> , 2019, 7, 180910-180922. | 2.6 | 5 |
| 14 | Brain-Inspired Intelligence for Real-Time Health Situation Understanding in Smart e-Health Home Applications. <i>IEEE Access</i> , 2019, 7, 180106-180126. | 2.6 | 13 |
| 15 | Adjoint sensitivity analysis approach for the nonlinear SchrÃ¶dinger equation. <i>Optics Letters</i> , 2019, 44, 3940. | 1.7 | 2 |
| 16 | Analysis of Nonlinear Phase Noise in Dispersion Unmanaged Fiber-Optic Systems. , 2018, , . | | 0 |
| 17 | ANN-Based Mitigation of Optical Fiber Nonlinear Distortions in Data Center Networks. , 2018, , . | | 0 |
| 18 | Nonlinear neural network equalizer for metro optical fiber communication systems. , 2018, , . | | 1 |

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|----|---|-----|-----------|
| 19 | Multi-Stage Perturbation Technique Based Nonlinear Fourier Transform for Fiber Optic Systems. , 2018, , . | | 0 |
| 20 | Mitigation of fiber linear and nonlinear effects in coherent optical communication systems. , 2015, , . | | 1 |
| 21 | Correlated digital back propagation based on perturbation theory. Optics Express, 2015, 23, 14655. | 1.7 | 21 |
| 22 | Raman Spectroscopy for In-Line Water Quality Monitoringâ€”Instrumentation and Potential. Sensors, 2014, 14, 17275-17303. | 2.1 | 71 |
| 23 | Analytical modeling of cross-phase modulation in coherent fiber-optic system. Optics Express, 2014, 22, 1426. | 1.7 | 16 |
| 24 | Comparison of Split-Step Fourier Schemes for Simulating Fiber Optic Communication Systems. IEEE Photonics Journal, 2014, 6, 1-15. | 1.0 | 40 |
| 25 | Optical Back Propagation With Optimal Step Size for Fiber Optic Transmission Systems. IEEE Photonics Technology Letters, 2013, 25, 523-526. | 1.3 | 20 |
| 26 | Digital Back Propagation With Optimal Step Size for Polarization Multiplexed Transmission. IEEE Photonics Technology Letters, 2013, 25, 2327-2330. | 1.3 | 12 |
| 27 | Analytical modeling of a single channel nonlinear fiber optic system based on QPSK. Optics Express, 2012, 20, 27740. | 1.7 | 7 |
| 28 | A multi-core or multi-fiber WDM System. , 2012, , . | | 1 |
| 29 | BER calculation of a single channel nonlinear fiber optic transmission system based on QPSK. , 2012, , . | | 1 |
| 30 | Second-order theory for nonlinear phase noise in coherent fiber-optic system based on phase shift keying. , 2011, , . | | 2 |
| 31 | All-Optical Multihop Free-Space Optical Communication Systems. Journal of Lightwave Technology, 2011, 29, 2663-2669. | 2.7 | 113 |
| 32 | Optical backpropagation for fiber-optic communications using highly nonlinear fibers. Optics Letters, 2011, 36, 1038. | 1.7 | 29 |
| 33 | Analysis of Nonlinear Phase Noise in Coherent Fiber-Optic Systems Based on Phase Shift Keying. Journal of Lightwave Technology, 2009, 27, 4722-4733. | 2.7 | 25 |
| 34 | Intra-Channel Four-Wave Mixing Impairments in Dispersion-Managed Coherent Fiber-Optic Systems Based on Binary Phase-Shift Keying. Journal of Lightwave Technology, 2009, 27, 2916-2923. | 2.7 | 10 |
| 35 | Optical implementation of orthogonal frequency-division multiplexing using time lenses. Optics Letters, 2008, 33, 2002. | 1.7 | 9 |
| 36 | Modeling Interchannel FWM With Walk-Off in RZ-DPSK Single Span Links. Journal of Lightwave Technology, 2008, 26, 2142-2154. | 2.7 | 7 |

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 37 | Nonlinear Electronic Dispersion Compensation Techniques for Fiber-Optic Communication Systems. , 2008, , . | | 4 |
| 38 | Application of nonlinear MLSE based on Volterra theory in NZ-DSF optical communication systems. , 2008, , . | | 1 |
| 39 | Compensation of third-order dispersion using time reversal in optical transmission systems. Optics Letters, 2007, 32, 346. | 1.7 | 14 |
| 40 | Electronic Dispersion Compensation Based on Maximum-Likelihood Sequence Estimation for 10 Gb/s Fiber-Optic Communication Systems. LEOS Summer Topical Meeting, 2007, , . | 0.0 | 1 |
| 41 | Modeling and Analysis of the Contribution of Channel Walk-Off to Nondegenerate and Degenerate Four-Wave-Mixing Noise in RZ-OOK Optical Transmission Systems. Journal of Lightwave Technology, 2006, 24, 4269-4285. | 2.7 | 13 |
| 42 | Analysis of intrachannel impairments in differential phase-shift keying transmission systems. Optics Letters, 2005, 30, 2053. | 1.7 | 2 |
| 43 | Effect of dispersion on nonlinear phase noise in optical transmission systems. Optics Letters, 2005, 30, 3278. | 1.7 | 45 |
| 44 | Influence of Raman effects in wavelength-division multiplexed soliton systems. Optics Letters, 1998, 23, 1450. | 1.7 | 29 |
| 45 | Quasi-soliton propagation in dispersion-managed optical fibers. Optics Letters, 1997, 22, 372. | 1.7 | 184 |
| 46 | Gordonâ€ˆHaus effect in dispersion-managed soliton systems. Optics Letters, 1997, 22, 1870. | 1.7 | 35 |