

# Shiva Kumar

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/2392775/publications.pdf>

Version: 2024-02-01

46  
papers

797  
citations

623699

14  
h-index

501174

28  
g-index

61  
all docs

61  
docs citations

61  
times ranked

641  
citing authors

#	ARTICLE	IF	CITATIONS
1	Quasi-soliton propagation in dispersion-managed optical fibers. <i>Optics Letters</i> , 1997, 22, 372.	3.3	184
2	All-Optical Multihop Free-Space Optical Communication Systems. <i>Journal of Lightwave Technology</i> , 2011, 29, 2663-2669.	4.6	113
3	Raman Spectroscopy for In-Line Water Quality Monitoring—Instrumentation and Potential. <i>Sensors</i> , 2014, 14, 17275-17303.	3.8	71
4	Effect of dispersion on nonlinear phase noise in optical transmission systems. <i>Optics Letters</i> , 2005, 30, 3278.	3.3	45
5	Comparison of Split-Step Fourier Schemes for Simulating Fiber Optic Communication Systems. <i>IEEE Photonics Journal</i> , 2014, 6, 1-15.	2.0	40
6	Gordon—Haus effect in dispersion-managed soliton systems. <i>Optics Letters</i> , 1997, 22, 1870.	3.3	35
7	Influence of Raman effects in wavelength-division multiplexed soliton systems. <i>Optics Letters</i> , 1998, 23, 1450.	3.3	29
8	Optical backpropagation for fiber-optic communications using highly nonlinear fibers. <i>Optics Letters</i> , 2011, 36, 1038.	3.3	29
9	Analysis of Nonlinear Phase Noise in Coherent Fiber-Optic Systems Based on Phase Shift Keying. <i>Journal of Lightwave Technology</i> , 2009, 27, 4722-4733.	4.6	25
10	Correlated digital back propagation based on perturbation theory. <i>Optics Express</i> , 2015, 23, 14655.	3.4	21
11	Optical Back Propagation With Optimal Step Size for Fiber Optic Transmission Systems. <i>IEEE Photonics Technology Letters</i> , 2013, 25, 523-526.	2.5	20
12	Analytical modeling of cross-phase modulation in coherent fiber-optic system. <i>Optics Express</i> , 2014, 22, 1426.	3.4	16
13	A Raman-Pumped Dispersion and Nonlinearity Compensating Fiber For Fiber Optic Communications. <i>IEEE Photonics Journal</i> , 2020, 12, 1-17.	2.0	16
14	Compensation of third-order dispersion using time reversal in optical transmission systems. <i>Optics Letters</i> , 2007, 32, 346.	3.3	14
15	Modeling and Analysis of the Contribution of Channel Walk-Off to Nondegenerate and Degenerate Four-Wave-Mixing Noise in RZ-OOK Optical Transmission Systems. <i>Journal of Lightwave Technology</i> , 2006, 24, 4269-4285.	4.6	13
16	Brain-Inspired Intelligence for Real-Time Health Situation Understanding in Smart e-Health Home Applications. <i>IEEE Access</i> , 2019, 7, 180106-180126.	4.2	13
17	Digital Back Propagation With Optimal Step Size for Polarization Multiplexed Transmission. <i>IEEE Photonics Technology Letters</i> , 2013, 25, 2327-2330.	2.5	12
18	Intra-Channel Four-Wave Mixing Impairments in Dispersion-Managed Coherent Fiber-Optic Systems Based on Binary Phase-Shift Keying. <i>Journal of Lightwave Technology</i> , 2009, 27, 2916-2923.	4.6	10

#	ARTICLE	IF	CITATIONS
19	Optical implementation of orthogonal frequency-division multiplexing using time lenses. Optics Letters, 2008, 33, 2002.	3.3	9
20	Brain Inspired Dynamic System for the Quality of Service Control over the Long-Haul Nonlinear Fiber-Optic Link. Sensors, 2019, 19, 2175.	3.8	9
21	Modeling Interchannel FWM With Walk-Off in RZ-DPSK Single Span Links. Journal of Lightwave Technology, 2008, 26, 2142-2154.	4.6	7
22	Analytical modeling of a single channel nonlinear fiber optic system based on QPSK. Optics Express, 2012, 20, 27740.	3.4	7
23	FDTD-Based Adjoint Sensitivity Analysis of High-Frequency Nonlinear Structures. IEEE Transactions on Antennas and Propagation, 2020, 68, 4727-4737.	5.1	7
24	Free Space Ground to Satellite Optical Communications Using Kramersâ€™Kronig Transceiver in the Presence of Atmospheric Turbulence. Sensors, 2022, 22, 3435.	3.8	7
25	Natural Brain-Inspired Intelligence for Non-Gaussian and Nonlinear Environments with Finite Memory. Applied Sciences (Switzerland), 2020, 10, 1150.	2.5	6
26	Natural Brain-Inspired Intelligence for Screening in Healthcare Applications. IEEE Access, 2021, 9, 67957-67973.	4.2	6
27	Smart long-haul fiber optic communication systems using brain-like intelligence. , 2019, , .		5
28	Brain-Inspired Cognitive Decision Making for Nonlinear and Non-Gaussian Environments. IEEE Access, 2019, 7, 180910-180922.	4.2	5
29	Nonlinear Electronic Dispersion Compensation Techniques for Fiber-Optic Communication Systems. , 2008, , .		4
30	Analysis of intrachannel impairments in differential phase-shift keying transmission systems. Optics Letters, 2005, 30, 2053.	3.3	2
31	Second-order theory for nonlinear phase noise in coherent fiber-optic system based on phase shift keying. , 2011, , .		2
32	Cognitive decision making for the long-haul fiber optic communication systems. , 2019, , .		2
33	Adjoint sensitivity analysis approach for the nonlinear SchrÃ¶dinger equation. Optics Letters, 2019, 44, 3940.	3.3	2
34	Software-Defined Fiber Optic Communications for Ultrahigh-Speed Optical Pulse Transmission Systems. IEEE Journal of Selected Topics in Quantum Electronics, 2022, 28, 1-10.	2.9	2
35	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
36	Application of nonlinear MLSE based on Volterra theory in NZ-DSF optical communication systems. , 2008, , .		1

#	ARTICLE	IF	CITATIONS
37	A multi-core or multi-fiber WDM System. , 2012, , .		1
38	BER calculation of a single channel nonlinear fiber optic transmission system based on QPSK. , 2012, , .		1
39	Mitigation of fiber linear and nonlinear effects in coherent optical communication systems. , 2015, , .		1
40	Nonlinear neural network equalizer for metro optical fiber communication systems. , 2018, , .		1
41	Enhanced-power NFDM transmission system with midpoint optical phase conjugation. Optics Letters, 2020, 45, 4682.	3.3	1
42	Adaptive digital back propagation exploiting adjoint-based optimization for fiber-optic communications. Optics Express, 2022, 30, 16264.	3.4	1
43	Analysis of Nonlinear Phase Noise in Dispersion Unmanaged Fiber-Optic Systems. , 2018, , .		0
44	ANN-Based Mitigation of Optical Fiber Nonlinear Distortions in Data Center Networks. , 2018, , .		0
45	Multi-Stage Perturbation Technique Based Nonlinear Fourier Transform for Fiber Optic Systems. , 2018, , .		0
46	Optical Back Propagation For Fiber Optic Communication Systems. , 2021, , .		0