Shiva Kumar

List of Publications by Year
in descending order

46	797	623699	501174
papers	citations	14	28
		h-index	g-index

61	61	61	641
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Free Space Ground to Satellite Optical Communications Using Kramers–Kronig Transceiver in the Presence of Atmospheric Turbulence. Sensors, 2022, 22, 3435.	3.8	7
2	Adaptive digital back propagation exploiting adjoint-based optimization for fiber-optic communications. Optics Express, 2022, 30, 16264.	3.4	1
3	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
4	Natural Brain-Inspired Intelligence for Screening in Healthcare Applications. IEEE Access, 2021, 9, 67957-67973.	4.2	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. IEEE Photonics Journal, 2020, 12, 1-17.	2.0	16
7	Natural Brain-Inspired Intelligence for Non-Gaussian and Nonlinear Environments with Finite Memory. Applied Sciences (Switzerland), 2020, 10, 1150.	2.5	6
8	FDTD-Based Adjoint Sensitivity Analysis of High-Frequency Nonlinear Structures. IEEE Transactions on Antennas and Propagation, 2020, 68, 4727-4737.	5.1	7
9	Enhanced-power NFDM transmission system with midpoint optical phase conjugation. Optics Letters, 2020, 45, 4682.	3.3	1
10	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
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. IEEE Access, 2019, 7, 180910-180922.	4.2	5
14	Brain-Inspired Intelligence for Real-Time Health Situation Understanding in Smart e-Health Home Applications. IEEE Access, 2019, 7, 180106-180126.	4.2	13
15	Adjoint sensitivity analysis approach for the nonlinear Schrödinger equation. Optics Letters, 2019, 44, 3940.	3.3	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

#	Article	IF	Citations
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.	3.4	21
22	Raman Spectroscopy for In-Line Water Quality Monitoring—Instrumentation and Potential. Sensors, 2014, 14, 17275-17303.	3.8	71
23	Analytical modeling of cross-phase modulation in coherent fiber-optic system. Optics Express, 2014, 22, 1426.	3.4	16
24	Comparison of Split-Step Fourier Schemes for Simulating Fiber Optic Communication Systems. IEEE Photonics Journal, 2014, 6, 1-15.	2.0	40
25	Optical Back Propagation With Optimal Step Size for Fiber Optic Transmission Systems. IEEE Photonics Technology Letters, 2013, 25, 523-526.	2.5	20
26	Digital Back Propagation With Optimal Step Size for Polarization Multiplexed Transmission. IEEE Photonics Technology Letters, 2013, 25, 2327-2330.	2.5	12
27	Analytical modeling of a single channel nonlinear fiber optic system based on QPSK. Optics Express, 2012, 20, 27740.	3.4	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.	4.6	113
32	Optical backpropagation for fiber-optic communications using highly nonlinear fibers. Optics Letters, 2011, 36, 1038.	3.3	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.	4.6	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.	4.6	10
35	Optical implementation of orthogonal frequency-division multiplexing using time lenses. Optics Letters, 2008, 33, 2002.	3.3	9
36	Modeling Interchannel FWM With Walk-Off in RZ-DPSK Single Span Links. Journal of Lightwave Technology, 2008, 26, 2142-2154.	4.6	7

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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.	3.3	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.	4.6	13
42	Analysis of intrachannel impairments in differential phase-shift keying transmission systems. Optics Letters, 2005, 30, 2053.	3.3	2
43	Effect of dispersion on nonlinear phase noise in optical transmission systems. Optics Letters, 2005, 30, 3278.	3.3	45
44	Influence of Raman effects in wavelength-division multiplexed soliton systems. Optics Letters, 1998, 23, 1450.	3.3	29
45	Quasi-soliton propagation in dispersion-managed optical fibers. Optics Letters, 1997, 22, 372.	3.3	184
46	Gordonâ€"Haus effect in dispersion-managed soliton systems. Optics Letters, 1997, 22, 1870.	3.3	35