Danshi Wang

List of Publications by Year
in descending order

78 papers	1,713 citations	361413 20 h-index	302126 39 g-index
78 all docs	78 docs citations	78 times ranked	1208 citing authors

#	Article	IF	Citations
1	Modulation Format Recognition and OSNR Estimation Using CNN-Based Deep Learning. IEEE Photonics Technology Letters, 2017, 29, 1667-1670.	2.5	193
2	Intelligent constellation diagram analyzer using convolutional neural network-based deep learning. Optics Express, 2017, 25, 17150.	3.4	190
3	Joint atmospheric turbulence detection and adaptive demodulation technique using the CNN for the OAM-FSO communication. Optics Express, 2018, 26, 10494.	3.4	142
4	Failure prediction using machine learning and time series in optical network. Optics Express, 2017, 25, 18553.	3.4	133
5	Nonlinearity Mitigation Using a Machine Learning Detector Based on <inline-formula> <tex-math notation="LaTeX">k </tex-math> </inline-formula>-Nearest Neighbors. IEEE Photonics Technology Letters, 2016, 28, 2102-2105.	2.5	96
6	Data-driven Optical Fiber Channel Modeling: A Deep Learning Approach. Journal of Lightwave Technology, 2020, 38, 4730-4743.	4.6	71
7	The Role of Digital Twin in Optical Communication: Fault Management, Hardware Configuration, and Transmission Simulation. IEEE Communications Magazine, 2021, 59, 133-139.	6.1	68
8	Adaptive Demodulator Using Machine Learning for Orbital Angular Momentum Shift Keying. IEEE Photonics Technology Letters, 2017, 29, 1455-1458.	2.5	67
9	Combatting nonlinear phase noise in coherent optical systems with an optimized decision processor based on machine learning. Optics Communications, 2016, 369, 199-208.	2.1	59
10	Cost-effective and data size–adaptive OPM at intermediated node using convolutional neural network-based image processor. Optics Express, 2019, 27, 9403.	3.4	53
11	Nonlinear decision boundary created by a machine learning-based classifier to mitigate nonlinear phase noise. , 2015, , .		50
12	Flexible Optical Cross-Connect Structures Supporting WDM Multicast With Multiple Pumps for Multiple Channels. IEEE Photonics Journal, 2014, 6, 1-12.	2.0	49
13	System impairment compensation in coherent optical communications by using a bio-inspired detector based on artificial neural network and genetic algorithm. Optics Communications, 2017, 399, 1-12.	2.1	41
14	Physics–Informed Neural Network for Nonlinear Dynamics in Fiber Optics. Laser and Photonics Reviews, 2022, 16, .	8.7	41
15	LCoS-Based Wavelength-Selective Switch for Future Finer-Grid Elastic Optical Networks Capable of All-Optical Wavelength Conversion. IEEE Photonics Journal, 2017, 9, 1-12.	2.0	35
16	Low-Complexity and Nonlinearity-Tolerant Modulation Format Identification Using Random Forest. IEEE Photonics Technology Letters, 2019, 31, 853-856.	2.5	31
17	A Learning-Based Credible Participant Recruitment Strategy for Mobile Crowd Sensing. IEEE Internet of Things Journal, 2020, 7, 5302-5314.	8.7	28
18	Temporal data-driven failure prognostics using BiGRU for optical networks. Journal of Optical Communications and Networking, 2020, 12, 277.	4.8	22

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19	Suppression of pattern dependence in 10Gbps upstream transmission of WDM-PON with RSOA-based ONUs. Optics Communications, 2013, 308, 248-252.	2.1	21
20	Bit-based support vector machine nonlinear detector for millimeter-wave radio-over-fiber mobile fronthaul systems. Optics Express, 2017, 25, 26186.	3.4	20
21	Artificial Intelligence in Optical Communications: From Machine Learning to Deep Learning. Frontiers in Communications and Networks, 2021, 2, .	3.0	20
22	Machine Learning-Based Multifunctional Optical Spectrum Analysis Technique. IEEE Access, 2019, 7, 19726-19737.	4.2	19
23	Low-Complexity Adaptive Chromatic Dispersion Estimation Scheme Using Machine Learning for Coherent Long-Reach Passive Optical Networks. IEEE Photonics Journal, 2019, 11, 1-11.	2.0	15
24	A Space-Air-Ground Integrated Network Assisted Maritime Communication Network Based on Mobile Edge Computing. , 2020, , .		15
25	Dealing With Alarms in Optical Networks Using an Intelligent System. IEEE Access, 2019, 7, 97760-97770.	4.2	14
26	Deep Reinforcement Learning-Based Adaptive Handover Mechanism for VLC in a Hybrid 6G Network Architecture. IEEE Access, 2021, 9, 87241-87250.	4.2	14
27	Deep learning based adaptive sequential data augmentation technique for the optical network traffic synthesis. Optics Express, 2019, 27, 18831.	3.4	14
28	SVM detection for superposed pulse amplitude modulation in visible light communications. , 2016, , .		13
29	Comprehensive Eye Diagram Analysis: A Transfer Learning Approach. IEEE Photonics Journal, 2019, 11, 1-19.	2.0	13
30	Cause-aware failure detection using an interpretable XGBoost for optical networks. Optics Express, 2021, 29, 31974.	3.4	13
31	Potential failure cause identification for optical networks using deep learning with an attention mechanism. Journal of Optical Communications and Networking, 2022, 14, A122.	4.8	13
32	Low-Complexity Fiber Nonlinearity Impairments Compensation Enabled by Simple Recurrent Neural Network With Time Memory. IEEE Access, 2020, 8, 160995-161004.	4.2	12
33	A multi-OLTs and virtual passive optical network for hybrid network. , 2016, , .		8
34	Convolutional Neural Network-Based Deep Learning for Intelligent OSNR Estimation on Eye Diagrams. , 2017, , .		8
35	Low-complexity and joint modulation format identification and OSNR estimation using random forest for flexible coherent receivers. Optics Communications, 2020, 457, 124698.	2.1	8
36	Digital twin-enabled self-evolved optical transceiver using deep reinforcement learning. Optics Letters, 2020, 45, 4654.	3.3	8

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37	Joint Symbol Rate-Modulation Format Identification and OSNR Estimation Using Random Forest Based Ensemble Learning for Intermediate Nodes. IEEE Photonics Journal, 2021, 13, 1-6.	2.0	7
38	Alarm Compression Based on Machine Learning and Association Rules Mining in Optical Networks. , 2018, , .		6
39	Optical Network Traffic Prediction Based on Graph Convolutional Neural Networks. , 2020, , .		6
40	Dynamic Programmable Optical Transceiver Configuration Based on Digital Twin. IEEE Communications Letters, 2021, 25, 205-208.	4.1	6
41	Physical Information-Embedded Deep Learning for Forward Prediction and Inverse Design of Nanophotonic Devices. Journal of Lightwave Technology, 2021, 39, 6498-6508.	4.6	6
42	Topology design of digital metamaterials for ultra-compact integrated photonic devices based on mode manipulation. Nanoscale Advances, 2021, 3, 4579-4588.	4.6	6
43	Transformer-based Alarm Context-Vectorization Representation for Reliable Alarm Root Cause Identification in Optical Networks. , 2021, , .		6
44	Adaptive Failure Prediction Using Long Short-term Memory in Optical Network. , 2019, , .		5
45	Improving Person Reidentification Using a Self-Focusing Network in Internet of Things. IEEE Internet of Things Journal, 2022, 9, 9342-9353.	8.7	5
46	End-to-end Learning for Optical Fiber Communication with Data-driven Channel Model. , 2020, , .		5
47	Simultaneous wavelength and format conversion in SDN/NFV for flexible optical network based on FWM in SOA. Optical Engineering, 2018, 57, 1.	1.0	4
48	Service-aware Network Slicing Supporting Delay-Sensitive Services for 5G Fronthaul. , 2018, , .		3
49	Intelligent Optical Spectrum Analyzer Using Support Vector Machine. , 2018, , .		3
50	A Multi-Migration Seamless Handover Scheme for Vehicular Networks in Fog-based 5G Optical Fronthaul. , 2019, , .		3
51	Machine Learning for Optical Layer Failure Management. , 2021, , .		3
52	Modulation Format Recognition Based on CNN in Satellite Communication System. , 2021, , .		3
53	Dual-channel all-optical encryption using hybrid modulation format XOR gates based on FWM in HNLF. , 2017, , .		2
54	ADTP-based OSNR Monitoring Technique Using Convolutional Neural Network. , 2018, , .		2

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55	Deep Transfer Learning Based Multi-impairment Diagnosis for PAM-4 Optical Communication Systems. , 2019, , .		2
56	Highly Reliable Transmission System for Next-Generation Optical Access Network Based on Silicon Modulator With Maximum-Ratio Combined Receiver. IEEE Journal of Selected Topics in Quantum Electronics, 2021, 27, 1-10.	2.9	2
57	Wavelength Controllable Forward Prediction and Inverse Design of Nanophotonic Devices Using Deep Learning. , 2020, , .		2
58	Attention Mechanism-Driven Potential Fault Cause Identification in Optical Networks. , 2021, , .		2
59	LCoS-based programmable spectrum cutter with programmable and reconfigurable filtering shape for software defined optical network. , 2017, , .		1
60	Design of bandwidth-variable TWDM access network supporting inter-ONU communication based on tunable bandwidth wavelength selective switch. , 2017, , .		1
61	Big-Data-Driven Dynamic Clustering and Load Balancing of Virtual Base Stations for 5G Fronthaul Network. , 2019, , .		1
62	Optical Spectrum Measurement and Analysis for Flexible WDM System Using Faster R-CNN-based Object Detection. , 2019, , .		1
63	Design of planar waveguide directional couplers with arbitrary modal electric field. IET Optoelectronics, 0, , .	3.3	1
64	AI-assisted intent-based traffic grooming in a dynamically shared 5g optical fronthaul network. Optics Express, 2021, 29, 23113.	3.4	1
65	Generative Adversarial Network-based Channel Modeling for Free-Space Optical Communication. , 2021, , .		1
66	Simultaneous all-optical WDM multicast and unicast scheme for WDM optical access network based on SOA and AWG. , 2015, , .		0
67	10-Gbps optical duobinary signal generated by bandwidth-limited RSOA in colorless ONUs and compensated by FBG-based equalizer in OLT. , 2016, , .		0
68	Design and implementation of adaptive digital pre-distortion with partial transmit sequence algorithm for DMT modulation in high speed optical interconnection. , 2017, , .		0
69	A QoS-aware resource allocation algorithm based on dynamic virtual cluster for PFTTH network. , 2017, , .		0
70	Fiber Link Analysis and Q-factor Estimation Using CNN on Eye-Diagram. , 2018, , .		0
71	Energy-Efficient Metro-Access Network with Virtual OLT Migration. , 2018, , .		0
72	Experimental Demonstration of Traffic-aware Load Balancing for Fronthaul Network. , 2018, , .		0

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73	Demonstration of Probabilistic Shaping PAM4 for Visible Light Communications. , 2018, , .		0
74	Adaptive Equalizer for PAM-4 Signal in Data Center Using Scalable XGBoost. , 2019, , .		0
75	A Fiber-Optic Channel Modeled Through BiLSTM Technique. , 2019, , .		0
76	A new method of using deep neural network to compensate PDL. , 2019, , .		0
77	Data-driven Modeling Technique for Optical Communications Based on Deep Learning. , 2020, , .		0
78	Date Augmentation for Constellation and Eye Diagrams Using Conditional Generative Adversarial Nets. , 2020, , .		0