

Sujan Rajbhandari

List of Publications by Year in descending order

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102
papers

3,395
citations

218381

26
h-index

149479

56
g-index

104
all docs

104
docs citations

104
times ranked

2514
citing authors

#	ARTICLE	IF	CITATIONS
1	A 3-Gb/s Single-LED OFDM-Based Wireless VLC Link Using a Gallium Nitride μm LED. IEEE Photonics Technology Letters, 2014, 26, 637-640.	1.3	722
2	High Bandwidth GaN-Based Micro-LEDs for Multi-Gb/s Visible Light Communications. IEEE Photonics Technology Letters, 2016, 28, 2023-2026.	1.3	276
3	A review of gallium nitride LEDs for multi-gigabit-per-second visible light data communications. Semiconductor Science and Technology, 2017, 32, 023001.	1.0	205
4	LED Based Wavelength Division Multiplexed 10 Gb/s Visible Light Communications. Journal of Lightwave Technology, 2016, 34, 3047-3052.	2.7	187
5	Visible Light Communications: 170 Mb/s Using an Artificial Neural Network Equalizer in a Low Bandwidth White Light Configuration. Journal of Lightwave Technology, 2014, 32, 1807-1813.	2.7	109
6	Visible Light Communication Using a Blue GaN μm LED and Fluorescent Polymer Color Converter. IEEE Photonics Technology Letters, 2014, 26, 2035-2038.	1.3	109
7	High-Speed Integrated Visible Light Communication System: Device Constraints and Design Considerations. IEEE Journal on Selected Areas in Communications, 2015, 33, 1750-1757.	9.7	106
8	Wide field-of-view fluorescent antenna for visible light communications beyond the $\lambda/2$ limit. Optica, 2016, 3, 702.	4.8	73
9	Exploiting Equalization Techniques for Improving Data Rates in Organic Optoelectronic Devices for Visible Light Communications. Journal of Lightwave Technology, 2012, 30, 3081-3088.	2.7	72
10	Performance Analysis of Ethernet/Fast-Ethernet Free Space Optical Communications in a Controlled Weak Turbulence Condition. Journal of Lightwave Technology, 2012, 30, 2188-2194.	2.7	71
11	Multi-band carrier-less amplitude and phase modulation for bandlimited visible light communications systems. IEEE Wireless Communications, 2015, 22, 46-53.	6.6	68
12	A Comparison of APD- and SPAD-Based Receivers for Visible Light Communications. Journal of Lightwave Technology, 2018, 36, 2435-2442.	2.7	68
13	Coherent Heterodyne Multilevel Polarization Shift Keying With Spatial Diversity in a Free-Space Optical Turbulence Channel. Journal of Lightwave Technology, 2012, 30, 2689-2695.	2.7	64
14	Compensating for Optical Beam Scattering and Wandering in FSO Communications. Journal of Lightwave Technology, 2014, 32, 1323-1328.	2.7	57
15	Novel Fast Color-Converter for Visible Light Communication Using a Blend of Conjugated Polymers. ACS Photonics, 2015, 2, 194-199.	3.2	57
16	Pedestrian and Cyclist Detection and Intent Estimation for Autonomous Vehicles: A Survey. Applied Sciences (Switzerland), 2019, 9, 2335.	1.3	56
17	Modelling of free space optical link for ground-to-rail communications using a Gaussian source. IET Optoelectronics, 2013, 7, 1-8.	1.8	51
18	Design and analysis of an angularly segmented full-mobility visible light communications receiver. Transactions on Emerging Telecommunications Technologies, 2014, 25, 591-599.	2.6	51

#	ARTICLE	IF	CITATIONS
19	Visible Light Communications for Industrial Applications—Challenges and Potentials. Electronics (Switzerland), 2020, 9, 2157.	1.8	50
20	Fluorescent Red-Emitting BODIPY Oligofluorene Star-Shaped Molecules as a Color Converter Material for Visible Light Communications. Advanced Optical Materials, 2015, 3, 536-540.	3.6	44
21	Ethernet FSO Communications Link Performance Study Under a Controlled Fog Environment. IEEE Communications Letters, 2012, 16, 408-410.	2.5	42
22	A Multigigabit per Second Integrated Multiple-Input Multiple-Output VLC Demonstrator. Journal of Lightwave Technology, 2017, 35, 4358-4365.	2.7	40
23	Experimental Error Performance of Modulation Schemes Under a Controlled Laboratory Turbulence FSO Channel. Journal of Lightwave Technology, 2015, 33, 244-250.	2.7	36
24	Performance of Spatial Diversity DCO-OFDM in a Weak Turbulence Underwater Visible Light Communication Channel. Journal of Lightwave Technology, 2020, 38, 2271-2277.	2.7	31
25	Visible light communication using laser diode based remote phosphor technique. , 2015, , .		30
26	Optical Antennas for Wavelength Division Multiplexing in Visible Light Communications beyond the Å%otendue Limit. Advanced Optical Materials, 2020, 8, 1901139.	3.6	29
27	A 200 Mb/s VLC demonstration with a SPAD based receiver. , 2015, , .		28
28	Neural Network-Based Joint Spatial and Temporal Equalization for MIMO-VLC System. IEEE Photonics Technology Letters, 2019, 31, 821-824.	1.3	28
29	Hybrid pulse position modulation and binary phase shift keying subcarrier intensity modulation for free space optics in a weak and saturated turbulence channel. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2012, 29, 1680.	0.8	26
30	Transmitter and receiver technologies for optical wireless. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2020, 378, 20190182.	1.6	26
31	A 20-Mb/s VLC Link With a Polymer LED and a Multilayer Perceptron Equalizer. IEEE Photonics Technology Letters, 2014, 26, 1975-1978.	1.3	25
32	Impact of Vehicle Headlights Radiation Pattern on Dynamic Vehicular VLC Channel. Journal of Lightwave Technology, 2021, 39, 3162-3168.	2.7	23
33	Route diversity analyses for free-space optical wireless links within turbulent scenarios. Optics Express, 2013, 21, 7641.	1.7	22
34	Visible light communications: 375-ÅMbits/s data rate with a 160-ÅkHz bandwidth organic photodetector and artificial neural network equalization [Invited]. Photonics Research, 2013, 1, 65.	3.4	22
35	Design, Fabrication, and Application of GaN-Based Micro-LED Arrays With Individual Addressing by N-Electrodes. IEEE Photonics Journal, 2017, 9, 1-11.	1.0	22
36	A MIMO-ANN system for increasing data rates in organic visible light communications systems. , 2013, , .		21

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37	MIMO Visible Light Communications Using a Wide Field-of-View Fluorescent Concentrator. IEEE Photonics Technology Letters, 2017, 29, 306-309.	1.3	21
38	OFDM-PWM scheme for visible light communications. Optics Communications, 2017, 385, 213-218.	1.0	21
39	Improvement of the Transmission Bandwidth for Indoor Optical Wireless Communication Systems Using a Diffused Gaussian Beam. IEEE Communications Letters, 2012, 16, 1316-1319.	2.5	19
40	Demonstration of 2.3 Gb/s RGB white-light VLC using polymer based colour-converters and GaN micro-LEDs. , 2015, , .		17
41	Performance Comparison of Equalization Techniques for SI-POF Multi-Gigabit Communication With PAM- M and Device Non-Linearities. Journal of Lightwave Technology, 2018, 36, 2301-2308.	2.7	17
42	Wavelet- Artificial Neural Network Receiver for Indoor Optical Wireless Communications. Journal of Lightwave Technology, 2011, 29, 2651-2659.	2.7	15
43	Multi-band carrier-less amplitude and phase modulation with decision feedback equalization for bandlimited VLC systems. , 2015, , .		15
44	A Novel 3D Visible Light Positioning Method Using Received Signal Strength for Industrial Applications. Electronics (Switzerland), 2019, 8, 1311.	1.8	15
45	Wavelet-Neural Network VLC Receiver in the Presence of Artificial Light Interference. IEEE Photonics Technology Letters, 2013, 25, 1424-1427.	1.3	14
46	Imaging-MIMO visible light communication system using μLEDs and integrated receiver. , 2014, , .		14
47	Effectiveness of blue-filtering in WLED based indoor Visible light communication. , 2014, , .		14
48	Improvement of Transmission Bandwidth for Indoor Optical Wireless Communication Systems Using an Elliptical Lambertian Beam. IEEE Photonics Technology Letters, 2013, 25, 107-110.	1.3	13
49	Experimental proof-of-concept of optical spatial modulation OFDM using micro LEDs. , 2015, , .		13
50	Demonstration of a Bi-directional visible light communication with an overall sum-rate of 110 Mb/s using LEDs as emitter and detector. , 2014, , .		12
51	Flexible Glass Hybridized Colloidal Quantum Dots for Gb/s Visible Light Communications. IEEE Photonics Journal, 2018, 10, 1-11.	1.0	12
52	Comparative study of classifiers to mitigate intersymbol interference in diffuse indoor optical wireless communication links. Optik, 2013, 124, 4192-4196.	1.4	11
53	Indoor Intruder Tracking Using Visible Light Communications. Sensors, 2019, 19, 4578.	2.1	10
54	An experimental evaluation of a 3D visible light positioning system in an industrial environment with receiver tilt and multipath reflections. Optics Communications, 2021, 483, 126654.	1.0	10

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55	Statistical channel modelling of dynamic vehicular visible light communication system. Vehicular Communications, 2021, 29, 100339.	2.7	9
56	Precision indoor three-dimensional visible light positioning using receiver diversity and multi-layer perceptron neural network. IET Optoelectronics, 2020, 14, 440-446.	1.8	9
57	The BER Performance of the LDPC-Coded MPPM over Turbulence UWOC Channels. Photonics, 2022, 9, 349.	0.9	9
58	Hybrid POF/VLC link with M-PAM and MLP equaliser. , 2017, , .		8
59	Optimum Device and Modulation Scheme Selection for Optical Wireless Communications. Journal of Lightwave Technology, 2021, 39, 2281-2287.	2.7	8
60	Investigation of FSO ground-to-train communications in a laboratory environment. , 2011, , .		7
61	Demonstration of a multi-hop underwater visible light communication system. , 2017, , .		7
62	Optical single carrier-interleaved frequency division multiplexing for visible light communication systems. Optik, 2019, 194, 162910.	1.4	7
63	Impact of Dynamic Traffic on Vehicle-to-Vehicle Visible Light Communication Systems. IEEE Systems Journal, 2022, 16, 3512-3521.	2.9	7
64	A Study of Yearly Sunlight Variance Effect on Vehicular Visible Light Communication for Emergency Service Vehicles. , 2020, , .		7
65	Experimental wavelet based denoising for indoor infrared wireless communications. Optics Express, 2013, 21, 13779.	1.7	6
66	Application of Visible Light Communication in an Industrial Environment. , 2018, , .		6
67	Ergodic capacity and error performance of spatial diversity UWOC systems over generalized gamma turbulence channels. Optics Communications, 2022, 505, 127476.	1.0	6
68	A comparative study of optical concentrators for visible light communications. Proceedings of SPIE, 2017, , .	0.8	5
69	Dead-Zones Limitation in Visible Light Positioning Systems for Unmanned Aerial Vehicles. , 2019, , .		5
70	LDPC-Coded CAP with Spatial Diversity for UVLC Systems over Generalized-Gamma Fading Channel. Sensors, 2020, 20, 3378.	2.1	5
71	Analysis of nonline-of-sight visible light communications. Optical Engineering, 2017, 56, 1.	0.5	5
72	Performance of diffused indoor optical wireless links employing neural and adaptive linear equalizers. , 2007, , .		4

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73	Spectral Shape Impact of Nonlinear Compensator Signal in LTE RoF System. IEEE Photonics Technology Letters, 2015, 27, 2481-2484.	1.3	4
74	Integrated multiple-input multiple-output visible light communications systems: recent progress and results. Proceedings of SPIE, 2015, , .	0.8	4
75	Single carrier optical FDM in visible light communication. , 2016, , .		4
76	A review on effects of the atmospheric turbulence on laser beam propagation " An analytic approach. , 2016, , .		4
77	Investigation of 3 dB Optical Intensity Spot Radius of Laser Beam under Scattering Underwater Channel. Sensors, 2020, 20, 422.	2.1	4
78	The Statistical Temporal Properties of Vehicular Visible Light Communication Channel. , 2020, , .		4
79	Adaptive "soft" sliding block decoding of convolutional code using the artificial neural network. Transactions on Emerging Telecommunications Technologies, 2012, 23, 672-677.	2.6	3
80	Visible Light Communications: Improving data rate, link margin and field of view. , 2014, , .		3
81	Multi-Gigabit integrated MIMO visible light communication system: Progress and updates. , 2015, , .		3
82	Spatial and wavelength division multiplexing for high-speed VLC systems: An overview. , 2016, , .		3
83	Design of a visible light communication system for deep sea divers based on analogue frequency modulation. , 2016, , .		3
84	A high speed generalised space shift keying link with micro-LEDs and CMOS APD receiver. , 2016, , .		3
85	An Experimental Analysis of the Effect of Reflections on the Performance of Visible Light Positioning Systems in Warehouses. , 2019, , .		3
86	Evaluation of a Switched Combining Based Distributed Antenna System (DAS) for Pedestrian-to-Vehicle Communications. IEEE Transactions on Vehicular Technology, 2021, 70, 11005-11010.	3.9	3
87	Vehicular Visible Light Positioning Using Receiver Diversity with Machine Learning. Electronics (Switzerland), 2021, 10, 3023.	1.8	3
88	A Fast Ethernet FSO Link Performance Under the Fog Controlled Environment. , 2011, , .		2
89	Online artificial neural network equalization for a visible light communications system with an organic light emitting diode based transmitter. , 2013, , .		2
90	100 Mb/s wavelength division multiplexing visible light communications link using a triple-junction photo-diode. , 2016, , .		2

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91	Applications of Visible Light Communication for Distance Estimation: a Short Survey. , 2019, , .		2
92	Evaluation of the beam wondering in free space optics by image analysis. , 2013, , .		1
93	Multi-layer perceptron as equalisers for multilevel pulse amplitude modulation scheme in SI-POF. , 2016, , .		1
94	Development, performance and application of novel GaN-based micro-LED arrays with individually addressable n-electrodes. , 2017, , .		1
95	Investigation of Complexity and Regulatory Role of Physiological Activities During a Pacing Exercise. IEEE Access, 2019, 7, 152334-152346.	2.6	1
96	Experimental evaluation of adaptive maximum power point tracking for a standalone photovoltaic system. Energy Systems, 0, , 1.	1.8	1
97	Management of metabolic resources for a 20-km cycling time-trial using different types of pacing. Journal of Human Sport and Exercise, 2015, 10, .	0.2	1
98	The use of linear projections in the visual analysis of signals in an indoor optical wireless link. , 2010, , .		0
99	Demonstration of a MIMO visible light communication system utilizing analog circuits. , 2016, , .		0
100	Reducing Noise Pollution of Emergency Vehicle Sirens with an Early Warning System. , 2018, , .		0
101	A Heuristic Approach for Optical Transceiver Placement to Optimize SNR and Illuminance Uniformities of an Optical Body Area Network. Sensors, 2021, 21, 2943.	2.1	0
102	Study of MIMO m-CAP with Equalizer for a Band- Limited VLC System. , 2020, , .		0