

# Krishnamoorthy Senthilnathan

## List of Publications by Year in descending order

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92  
papers

1,183  
citations

471509

17  
h-index

434195

31  
g-index

93  
all docs

93  
docs citations

93  
times ranked

976  
citing authors

#	ARTICLE	IF	CITATIONS
1	Design of a Terahertz Alcohol Sensor Using a Steering-Wheel Microstructured Photonic Crystal Fiber. IETE Journal of Research, 2023, 69, 180-188.	2.6	2
2	A Surface Plasmon Resonance Bio-Sensor Based on Dual Core D-Shaped Photonic Crystal Fibre Embedded With Silver Nanowires for Multisensing. IEEE Sensors Journal, 2021, 21, 76-84.	4.7	36
3	Influence of the Sub-Peak of Secondary Surface Plasmon Resonance Onto the Sensing Performance of a D-Shaped Photonic Crystal Fibre Sensor. IEEE Sensors Journal, 2021, 21, 33-42.	4.7	14
4	Quasi-Deterministic Secure Quantum Communication Using Non-maximally Entangled States. International Journal of Theoretical Physics, 2021, 60, 164-171.	1.2	0
5	Ultrahigh sensitive surface plasmon sensor using a nanofilm coated D-type photonic crystal fiber. Applied Optics, 2021, 60, 2591.	1.8	6
6	Ultra-thin polarization independent broadband terahertz metamaterial absorber. Frontiers of Optoelectronics, 2021, 14, 288-297.	3.7	12
7	Design of a terahertz chemical sensor using a dual steering-wheel microstructured photonic crystal fiber. Photonics and Nanostructures - Fundamentals and Applications, 2021, 46, 100952.	2.0	5
8	Cobalt Metal ion Doped Cerium Oxide (Co-CeO <sub>2</sub> ) Nanoparticles Effect Enhanced Photocatalytic Activity. MRS Advances, 2020, 5, 2503-2515.	0.9	20
9	Influences of Ti <sup>4+</sup> ion on dielectric property in perovskite structure of La ferrite (LaFe <sub>1-x</sub> Ti <sub>x</sub> O <sub>3</sub> ). Journal of Alloys and Compounds, 2020, 845, 155040.	5.5	7
10	High sensitive D-shaped photonic crystal fiber sensor with V-groove analyte channel. Optik, 2020, 213, 164779.	2.9	28
11	Designing a dual steering wheel microstructured blood components sensor in terahertz wave band. Optical Engineering, 2020, 59, 1.	1.0	0
12	Chirped self-similar solitary waves for the generalized nonlinear Schrödinger equation with distributed two-power-law nonlinearities. Physical Review E, 2019, 100, 042208.	2.1	8
13	Visible to near infrared highly sensitive microbiosensor based on surface plasmon polariton with external sensing approach. Results in Physics, 2019, 15, 102590.	4.1	16
14	Recent Advances in Plasmonic Sensor-Based Fiber Optic Probes for Biological Applications. Applied Sciences (Switzerland), 2019, 9, 949.	2.5	99
15	Designing a Broadband Terahertz Half-Wave Plate Using an Anisotropic Metasurface. Journal of Infrared, Millimeter, and Terahertz Waves, 2019, 40, 500-515.	2.2	11
16	Design and Analysis of Surface-Plasmon-Resonance-Based Photonic Quasi-Crystal Fiber Biosensor for High-Refractive-Index Liquid Analytes. IEEE Journal of Selected Topics in Quantum Electronics, 2019, 25, 1-9.	2.9	78
17	Continuous wave pumped supercontinuum assisted by a weak femtosecond pulse seed. Journal of Optics (United Kingdom), 2019, 21, 015503.	2.2	3
18	Studies on Fundamental Interaction Parameters for Stainless Steel and Titanium Biomaterials Using Flattened and Un-Flattened Megavoltage X-Ray Beams. Asian Pacific Journal of Cancer Prevention, 2019, 20, 2485-2491.	1.2	2

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19	An Assessment of Dosimetric Characteristics of Inline 2.5 Mega Voltage Unflattened Imaging X-Ray Beam. Asian Pacific Journal of Cancer Prevention, 2019, 20, 2531-2539.	1.2	0
20	Dosimetric Effect of Rotational Setup Errors in Single-Isocenter Volumetric-Modulated Arc Therapy of Multiple Brain Metastases. Journal of Medical Physics, 2019, 44, 84-90.	0.3	6
21	Combination and Compression of Multiple Optical Pulses in Nonlinear Fibers with the Exponentially Decreasing Dispersion. IEEE Journal of Quantum Electronics, 2018, 54, 1-10.	1.9	2
22	High sensitivity photonic crystal fiber-based refractive index microbiosensor. Optical Fiber Technology, 2018, 46, 88-94.	2.7	17
23	Study of dosimetric properties of flattened and unflattened megavoltage x ray beam on high Z implant materials. Journal of Applied Clinical Medical Physics, 2018, 19, 265-273.	1.9	3
24	Surface Plasmon Resonance:Physics and Technology. Current Science, 2018, 115, 56.	0.8	24
25	Influence of quasi-periodic cladding on single mode behavior in a leakage channel fiber: Towards the enhancement of modal discrimination and low bending loss of the LP 01 mode. Optics Communications, 2017, 389, 239-246.	2.1	5
26	Generation of Few-Cycle Laser Pulses Using A Photonic Quasi-crystal Fiber. Springer Proceedings in Physics, 2017, , 153-158.	0.2	1
27	Supercontinuum Generation in a Silicon Nanowire Embedded Photonic Crystal Fiber for Optical Coherence Tomography Applications. Springer Proceedings in Physics, 2017, , 71-88.	0.2	1
28	Studies on structural and optical properties of ZrO2 nanopowder for opto-electronic applications. Journal of Alloys and Compounds, 2017, 694, 556-559.	5.5	91
29	D-shaped plasmonic sensor using a molybdenum disulfide doped photonic crystal fiber. IOP Conference Series: Materials Science and Engineering, 2017, 263, 052031.	0.6	8
30	Sensitivity analysis of steering-wheel gas sensor against diverse core air hole sizes and core materials in terahertz wave band. IOP Conference Series: Materials Science and Engineering, 2017, 263, 052036.	0.6	7
31	Comparison of low dispersion and high nonlinear PCF with different lattices: Triangular, square and asymmetric. , 2017, , .		0
32	Modelling photon condensation in a fluorescent dye filled optical microcavity. IOP Conference Series: Materials Science and Engineering, 2017, 263, 022005.	0.6	0
33	Supercontinuum generation in low dispersion and highly nonlinear hexagonal photonic crystal fibers. Journal of Nanophotonics, 2017, 11, 1.	1.0	6
34	Study of variation in dose calculation accuracy between kV cone-beam computed tomography and kV fan-Beam computed tomography. Journal of Medical Physics, 2017, 42, 171.	0.3	4
35	Photon condensation: A new paradigm for Bose-Einstein condensation. Frontiers of Physics, 2016, 11, 1.	5.0	10
36	Tapering photonic crystal fibers for generating self-similar ultrashort pulses at 1550Ånm. Optical Engineering, 2016, 55, 067108.	1.0	6

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37	Localized Plasmon-Based Optical Fiber Sensing Platform for Operation in Infrared. IEEE Photonics Technology Letters, 2016, 28, 2054-2057.	2.5	3
38	Generation of a train of ultrashort pulses using periodic waves in tapered photonic crystal fibres. Journal of Modern Optics, 2016, 63, 2246-2258.	1.3	2
39	All-normal dispersion passively mode-locked Yb-doped fiber laser using MoS <sub>2</sub> PVA saturable absorber. Laser Physics, 2016, 26, 055103.	1.2	28
40	Designing a Biosensor Using a Photonic Quasi-Crystal Fiber. IEEE Sensors Journal, 2016, 16, 2425-2430.	4.7	31
41	Designing a refractive index based biosensor using a photonic quasi-crystal fiber. , 2015, , .		4
42	Few-cycle pulse generation using low confinement loss solid-core photonic quasi-crystal fiber. , 2015, , .		0
43	Design of octagonal core micro-cladding leakage channel fiber with low bending loss. , 2015, , .		0
44	Speckle noise suppression in SAR images (Oil spill images) using wavelet based methods and ICA technique. , 2015, , .		3
45	Graphene-Based Conducting Metal Oxide Coated D-Shaped Optical Fiber SPR Sensor. IEEE Photonics Technology Letters, 2015, 27, 2437-2440.	2.5	117
46	Design of a photonic quasi-crystal fiber for the generation of few cycle laser pulses. Infrared Physics and Technology, 2015, 68, 69-74.	2.9	2
47	Supercontinuum generation in silicon nanowire embedded photonic crystal fibers with different core geometries. , 2014, , .		1
48	Designing a 10-fold photonic quasi-crystal fiber for enhancing the efficiency of second harmonic generation. , 2014, , .		0
49	Large dispersion and high nonlinearity in silicon nanowire embedded photonic crystal fiber. , 2014, , .		1
50	Six-fold photonic quasicrystal fiber for generating few cycle laser pulses. , 2014, , .		0
51	Designing photonic quasi-crystal fibers of various folds: onto optimization of efficiency and bandwidth of second harmonic generation. Applied Optics, 2014, 53, 2899.	1.8	4
52	Waveguiding properties of a silicon nanowire embedded photonic crystal fiber. Optical Materials, 2014, 36, 958-964.	3.6	8
53	Realizing a robust optical pulse compressor operating at 850 nm using a photonic crystal fiber. Journal of Modern Optics, 2013, 60, 368-377.	1.3	5
54	Silicon nanowire embedded circular photonic crystal fiber for nonlinear applications. , 2013, , .		1

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55	Exploring a photonic quasi-crystal fiber for enhancing the efficiency of second harmonic generation: Modeling and analysis. <i>Optical Materials</i> , 2013, 35, 2132-2137.	3.6	7
56	Designing an eight-fold photonic quasi-crystal fiber for enhancing the efficiency of second harmonic generation. , 2013, , .		0
57	Low dispersion and high nonlinearity microstructured photonic quasicrystal fiber. , 2013, , .		0
58	Supercontinuum generation in a silicon nanowire embedded spiral photonic crystal fiber. , 2013, , .		2
59	Generation of bright and dark solitons in photonic nanowire. , 2012, , .		0
60	Generation of a Train of Ultrashort Pulses Near-Infrared Regime in a Tapered Photonic Crystal Fiber Using Raised-Cosine Pulses. <i>IEEE Photonics Journal</i> , 2012, 4, 1420-1437.	2.0	9
61	Pedestal free pulse compression of chirped optical solitons. <i>Optics Communications</i> , 2012, 285, 1449-1455.	2.1	14
62	Dynamics of 850 nm optical pulses upon compression in a tapered photonic crystal fiber. , 2011, , .		1
63	Modeling Self-Similar Optical Pulse Compression in Nonlinear Fiber Bragg Grating Using Coupled-Mode Equations. <i>Journal of Lightwave Technology</i> , 2011, 29, 1293-1305.	4.6	23
64	Efficient Pulse Compression Using Tapered Photonic Crystal Fiber at 850 nm. <i>IEEE Journal of Quantum Electronics</i> , 2010, 46, 1795-1803.	1.9	33
65	A study on structural and optical properties of Mn- and Co-doped SnO <sub>2</sub> nanocrystallites. <i>Materials Chemistry and Physics</i> , 2010, 124, 1046-1050.	4.0	41
66	Efficient pulse compression in photonic crystal fibre at 850 nm. , 2010, , .		0
67	Generation of self-induced-transparency gap solitons by modulational instability in uniformly doped fiber Bragg gratings. <i>Physical Review A</i> , 2010, 81, .	2.5	7
68	Effects of higher order dispersion on self-similar pulse compression in nonlinear fiber bragg gratings. , 2009, , .		1
69	Nearly chirp- and pedestal-free pulse compression in nonlinear fiber Bragg gratings. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2009, 26, 432.	2.1	56
70	Gap solitons and modulation instability in a dynamic Bragg grating with nonlinearity management. <i>Journal of Optics</i> , 2009, 11, 015203.	1.5	6
71	Chirped optical solitons: High degree pulse compression. , 2009, , .		1
72	Dissipative Solitons in Coupled Complex Ginzburg-Landau Equations. <i>Journal of the Physical Society of Japan</i> , 2009, 78, 084001.	1.6	11

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73	Robust pedestal-free pulse compression in cubic-quintic nonlinear media. <i>Physical Review A</i> , 2008, 78, .	2.5	67
74	Pedestal-free pulse compression in nonlinear fiber Bragg gratings with exponentially varying dispersion. , 2008, , .		0
75	Bright solitons on a cnoidal wave background for the inhomogeneous nonlinear Schrödinger equation. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2008, 41, 025401.	1.5	12
76	Periodic waves in fiber Bragg gratings. <i>Physical Review E</i> , 2008, 77, 026602.	2.1	15
77	Modulational instability in highly nonlinear media. , 2008, , .		0
78	Solitons in Bragg gratings with saturable nonlinearities. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2007, 24, 1458.	2.1	13
79	Pedestal free pulse compression in nonuniform fiber Bragg gratings. , 2007, , .		1
80	Grating solitons near the photonic bandgap of a fiber Bragg grating. <i>Chaos, Solitons and Fractals</i> , 2007, 33, 523-531.	5.1	5
81	Chirped Self-similar Pulse Propagation in Cubic-quintic Media. <i>Progress in Electromagnetics Research Symposium: [proceedings] Progress in Electromagnetics Research Symposium</i> , 2007, 3, 531-538.	0.4	6
82	Generation of Bragg solitons through modulation instability in a Bragg grating structure. <i>Chaos</i> , 2005, 15, 037109.	2.5	12
83	Modulational instability in fiber Bragg grating with non-Kerr nonlinearity. <i>IEEE Journal of Quantum Electronics</i> , 2005, 41, 789-796.	1.9	37
84	Modulational instability in a fibre and a fibre Bragg grating. <i>Journal of Optics B: Quantum and Semiclassical Optics</i> , 2004, 6, S436-S452.	1.4	19
85	Bright and dark spatial solitons in coupled photorefractive media. <i>Journal of Modern Optics</i> , 2004, 51, 415-421.	1.3	2
86	Adiabatic Bragg soliton compression. <i>Optics Communications</i> , 2003, 227, 275-281.	2.1	3
87	Symmetry-breaking instability in gap soliton. <i>Optics Communications</i> , 2003, 227, 295-299.	2.1	9
88	Dynamics of nonlinear pulse propagation through a fiber Bragg grating with linear coupling. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2003, 20, 366.	2.1	9
89	Bright and dark Bragg solitons in a fiber Bragg grating. <i>IEEE Journal of Quantum Electronics</i> , 2003, 39, 1492-1497.	1.9	10
90	ANALYSIS OF POTENTIAL ENERGY IN BIREFRINGENT FIBER THROUGH UNDAMPED DUFFING OSCILLATOR EQUATION. <i>Journal of Nonlinear Optical Physics and Materials</i> , 2003, 12, 7-16.	1.8	0

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91	Evolution of polarization of a nonlinear pulse in birefringent fiber with quintic effects. Physics Letters, Section A: General, Atomic and Solid State Physics, 2002, 301, 433-441.	2.1	3
92	Silicon Nanowire Embedded Spiral Photonic Crystal Fiber for Soliton-Effect Pulse Compression. Advanced Materials Research, 0, 938, 316-321.	0.3	0