

# Bikash Kumar Paul

## List of Publications by Year in descending order

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148  
papers

4,339  
citations

117625

34  
h-index

155660

55  
g-index

148  
all docs

148  
docs citations

148  
times ranked

1125  
citing authors

#	ARTICLE	IF	CITATIONS
1	Surface Plasmon Resonance Based Titanium Coated Biosensor for Cancer Cell Detection. IEEE Photonics Journal, 2019, 11, 1-10.	2.0	168
2	Design of D-shaped elliptical core photonic crystal fiber for blood plasma cell sensing application. Results in Physics, 2019, 12, 2021-2025.	4.1	141
3	Heart disease prediction using supervised machine learning algorithms: Performance analysis and comparison. Computers in Biology and Medicine, 2021, 136, 104672.	7.0	141
4	Refractive Index-Based Blood Components Sensing in Terahertz Spectrum. IEEE Sensors Journal, 2019, 19, 3368-3375.	4.7	131
5	Gold-coated photonic crystal fiber biosensor based on surface plasmon resonance: Design and analysis. Sensing and Bio-Sensing Research, 2018, 18, 7-12.	4.2	125
6	Design and optimization of photonic crystal fiber for liquid sensing applications. Photonic Sensors, 2016, 6, 279-288.	5.0	119
7	Hybrid photonic crystal fiber in chemical sensing. SpringerPlus, 2016, 5, 748.	1.2	103
8	Tri-core photonic crystal fiber based refractive index dual sensor for salinity and temperature detection. Microwave and Optical Technology Letters, 2019, 61, 847-852.	1.4	96
9	Folded cladding porous shaped photonic crystal fiber with high sensitivity in optical sensing applications: Design and analysis. Sensing and Bio-Sensing Research, 2017, 12, 36-42.	4.2	88
10	Beam divergence and operating wavelength bands effects on free space optics communication channels in local access networks. Journal of Optical Communications, 2024, 44, s823-s831.	4.7	83
11	Ultrahigh birefringence, ultralow material loss porous core single-mode fiber for terahertz wave guidance. Applied Optics, 2017, 56, 3477.	2.1	82
12	Conventional/Phase Shift Dual Drive Mach-Zehnder Modulation Measured Type Based Radio over Fiber Systems. Journal of Optical Communications, 2021, .	4.7	82
13	Proposal of a gas sensor with high sensitivity, birefringence and nonlinearity for air pollution monitoring. Sensing and Bio-Sensing Research, 2016, 10, 20-26.	4.2	78
14	Quasi-Photonic Crystal Fiber-Based Spectroscopic Chemical Sensor in the Terahertz Spectrum: Design and Analysis. IEEE Sensors Journal, 2018, 18, 9948-9954.	4.7	75
15	Chirped Large Mode Area Photonic Crystal Modal Fibers and its Resonance Modes Based on Finite Element Technique. Journal of Optical Communications, 2023, 44, 333-338.	4.7	73
16	Technical Specifications of the Submarine Fiber Optic Channel Bandwidth/Capacity in Optical Fiber Transmission Systems. Journal of Optical Communications, 2020, .	4.7	72
17	Polar Polarization Mode and Average Radical Flux Intensity Measurements Based on All Optical Spatial Communication Systems. Journal of Optical Communications, 2022, .	4.7	72
18	Liquid-infiltrated photonic crystal fiber for sensing purpose: Design and analysis. AEJ - Alexandria Engineering Journal, 2018, 57, 1459-1466.	6.4	70

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19	Performance Enhancement of Fiber Optic and Optical Wireless Communication Channels by Using Forward Error Correction Codes. Journal of Optical Communications, 2021, .	4.7	70
20	Optimization and enhancement of liquid analyte sensing performance based on square-cored octagonal photonic crystal fiber. Optik, 2017, 131, 687-696.	2.9	69
21	Network-based identification genetic effect of SARS-CoV-2 infections to Idiopathic pulmonary fibrosis (IPF) patients. Briefings in Bioinformatics, 2021, 22, 1254-1266.	6.5	64
22	Alcohol sensing over O+E+S+C+L+U transmission band based on porous cored octagonal photonic crystal fiber. Photonic Sensors, 2017, 7, 123-130.	5.0	60
23	A deep learning approach using effective preprocessing techniques to detect COVID-19 from chest CT-scan and X-ray images. Computers in Biology and Medicine, 2021, 139, 105014.	7.0	56
24	Design of a porous cored hexagonal photonic crystal fiber based optical sensor with high relative sensitivity for lower operating wavelength. Photonic Sensors, 2017, 7, 55-65.	5.0	50
25	Tetra-core surface plasmon resonance based biosensor for alcohol sensing. Physica B: Condensed Matter, 2019, 570, 48-52.	2.7	50
26	Design of single mode spiral photonic crystal fiber for gas sensing applications. Sensing and Bio-Sensing Research, 2017, 13, 55-62.	4.2	49
27	Design and analysis of slotted core photonic crystal fiber for gas sensing application. Results in Physics, 2018, 11, 643-650.	4.1	49
28	ROF systems performance efficiency based on continuous phase frequency shift keying phase modulation scheme. Journal of Optical Communications, 2021, .	4.7	45
29	Silicon nano crystal filled photonic crystal fiber for high nonlinearity. Optical Materials, 2018, 84, 545-549.	3.6	44
30	Titanium-Coated Dual-Core D-Shaped SPR-Based PCF for Hemoglobin Sensing. Plasmonics, 2019, 14, 1601-1610.	3.4	42
31	Machine learning based diabetes prediction and development of smart web application. International Journal of Cognitive Computing in Engineering, 2021, 2, 229-241.	8.2	42
32	Design of highly sensible porous shaped photonic crystal fiber with strong confinement field for optical sensing. Optik, 2017, 142, 541-549.	2.9	41
33	FEM analysis of birefringence, dispersion and nonlinearity of graphene coated photonic crystal fiber. Ceramics International, 2019, 45, 15343-15347.	4.8	41
34	Design and analysis of biosensor based on surface plasmon resonance. Sensing and Bio-Sensing Research, 2018, 21, 1-6.	4.2	40
35	A Novel Hexahedron Photonic Crystal Fiber in Terahertz Propagation: Design and Analysis. Photonics, 2019, 6, 32.	2.0	39
36	Investigation of gas sensor based on differential optical absorption spectroscopy using photonic crystal fiber. AEJ - Alexandria Engineering Journal, 2020, 59, 5045-5052.	6.4	38

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37	Ring-based coil structure photonic crystal fiber for transmission of Orbital Angular Momentum with large bandwidth: Outline, investigation and analysis. Optics Communications, 2020, 473, 126003.	2.1	37
38	Nanoscale GaP strips based photonic crystal fiber with high nonlinearity and high numerical aperture for laser applications. Results in Physics, 2018, 10, 374-378.	4.1	36
39	Design a photonic crystal fiber of guiding terahertz orbital angular momentum beams in optical communication. Optics Communications, 2020, 475, 126192.	2.1	36
40	Effect of photonic crystal fiber background materials in sensing and communication applications. Materials Discovery, 2017, 7, 8-14.	3.3	35
41	Photonic crystal fiber for robust orbital angular momentum transmission: design and investigation. Optical and Quantum Electronics, 2020, 52, 1.	3.3	35
42	Design and fabrication of amoeba faced photonic crystal fiber for biosensing application. Sensors and Actuators A: Physical, 2020, 313, 112204.	4.1	35
43	Machine learning-based statistical analysis for early stage detection of cervical cancer. Computers in Biology and Medicine, 2021, 139, 104985.	7.0	35
44	Highly birefringent single mode spiral shape photonic crystal fiber based sensor for gas sensing applications. Sensing and Bio-Sensing Research, 2017, 14, 30-38.	4.2	34
45	Chalcogenide embedded quasi photonic crystal fiber for nonlinear optical applications. Ceramics International, 2018, 44, 18955-18959.	4.8	34
46	Numerical analysis of circular core shaped photonic crystal fiber for orbital angular momentum with efficient transmission. Applied Physics B: Lasers and Optics, 2020, 126, 1.	2.2	32
47	Ultra high birefringence and lower beat length for square shape PCF: Analysis effect on rotation angle and eccentricity. AEJ - Alexandria Engineering Journal, 2018, 57, 3683-3691.	6.4	31
48	Development of Photonic Crystal Fiber-Based Gas/Chemical Sensors. , 2019, , 287-317.		31
49	Highly birefringent TOPAS based single mode photonic crystal fiber with ultra-low material loss for Terahertz applications. Optical Fiber Technology, 2019, 53, 102031.	2.7	31
50	Design and performance evaluation of photonic crystal fibers of supporting orbital angular momentum states in optical transmission. Optics Communications, 2020, 467, 125731.	2.1	31
51	Key performance parameters estimation with Epsilon near zero (ENZ) for Kagome photonic crystal fiber in THz system. Optical and Quantum Electronics, 2022, 54, .	3.3	31
52	Design of a single-mode photonic crystal fibre with ultra-low material loss and large effective mode area in THz regime. IET Optoelectronics, 2017, 11, 265-271.	3.3	30
53	Identification of biomarkers and pathways for the SARS-CoV-2 infections that make complexities in pulmonary arterial hypertension patients. Briefings in Bioinformatics, 2021, 22, 1451-1465.	6.5	30
54	Highly sensitive simple structure circular photonic crystal fiber based chemical sensor. , 2015, , .		29



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73	Investigation of highly birefringent and highly nonlinear Hexa Sected PCF with low confinement loss. Results in Physics, 2018, 11, 1039-1043.	4.1	19
74	Ultra-low Loss with Single Mode Polymer-Based Photonic Crystal Fiber for THz Waveguide. Journal of Optical Communications, 2019, 40, 411-417.	4.7	18
75	Design of Magnetic Fluid Sensor Using Elliptically Hole Assisted Photonic Crystal Fiber (PCF). Journal of Superconductivity and Novel Magnetism, 2020, 33, 2189-2198.	1.8	18
76	Numerical demonstration of triangular shaped photonic crystal fibre based biosensor in the Terahertz range. IET Optoelectronics, 2021, 15, 1-7.	3.3	18
77	Single polarization photonic crystal fiber filter based on surface plasmon resonance. Frontiers of Optoelectronics, 2019, 12, 157-164.	3.7	17
78	Extremely Low Loss of Photonic Crystal Fiber for Terahertz Wave Propagation in Optical Communication Applications. Journal of Optical Communications, 2020, 41, 393-401.	4.7	17
79	Numerical investigation of spiral photonic crystal fiber (S-PCF) with supporting high order OAM modes propagation for space division multiplexing applications. Optical and Quantum Electronics, 2021, 53, 1.	3.3	17
80	Rhombic core photonic crystal fiber for sensing applications: Modeling and analysis. Optik, 2018, 157, 1357-1365.	2.9	16
81	Numerical evaluation of the performance of different materials in nonlinear optical applications. Results in Physics, 2019, 13, 102184.	4.1	16
82	Heptagonal Photonic Crystal Fiber Based Chemical Sensor in THz Regime. , 2019, , .		16
83	FEM based highly sensitive dual core temperature sensor: design and analysis. OSA Continuum, 2019, 2, 2581.	1.8	16
84	Single-mode spiral shape fiber based liquid sensor with ultra-high sensitivity and ultra-low loss: Design and analysis. Karbala International Journal of Modern Science, 2017, 3, 131-142.	1.0	15
85	Investigation of ultra-low loss surface plasmon resonance-based PCF for biosensing application. Results in Physics, 2018, 11, 358-361.	4.1	15
86	Automatic driver distraction detection using deep convolutional neural networks. Intelligent Systems With Applications, 2022, 14, 200075.	3.0	15
87	Materials Effect in Sensing Performance Based on Surface Plasmon Resonance Using Photonic Crystal Fiber. Plasmonics, 2019, 14, 861-867.	3.4	14
88	Proposal of a simple structure photonic crystal fiber for lower indexed chemical sensing. , 2015, , .		13
89	Dataset of surface plasmon resonance based on photonic crystal fiber for chemical sensing applications. Data in Brief, 2018, 19, 76-81.	1.0	13
90	Quasi photonic crystal fiber for chemical sensing purpose in the terahertz regime: design and analysis. Optical and Quantum Electronics, 2019, 51, 1.	3.3	13

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91	Identification of the core ontologies and signature genes of polycystic ovary syndrome (PCOS): A bioinformatics analysis. Informatics in Medicine Unlocked, 2020, 18, 100304.	3.4	13
92	Machine learning to reveal an astute risk predictive framework for Gynecologic Cancer and its impact on women psychology: Bangladeshi perspective. BMC Bioinformatics, 2021, 22, 213.	2.6	13
93	Low insertion loss and high extinction ratio analysis of a new surface plasmon resonance based photonic crystal fiber filter. Optik, 2019, 194, 163069.	2.9	12
94	Design of Ge <sub>20</sub> Sb <sub>15</sub> Se <sub>65</sub> embedded rectangular slotted quasi photonic crystal fiber for higher nonlinearity applications. Optik, 2019, 184, 63-69.	2.9	12
95	Design protein-protein interaction network and protein-drug interaction network for common cancer diseases: A bioinformatics approach. Informatics in Medicine Unlocked, 2020, 18, 100311.	3.4	12
96	Dataset on photonic crystal fiber based chemical sensor. Data in Brief, 2017, 12, 227-233.	1.0	11
97	Extremely low loss optical waveguide for terahertz pulse guidance. Results in Physics, 2019, 15, 102666.	4.1	11
98	Analysis of optical sensitivity of analytes in aqua solutions. Optik, 2019, 178, 970-977.	2.9	11
99	The design and analysis of a dual-diamond-ring PCF-based sensor. Journal of Computational Electronics, 2020, 19, 1288-1294.	2.5	11
100	Micro-Structure Ring Fiber-Based Novel Magnetic Sensor with High Birefringence and High Sensitivity Response in Broad Waveband. Plasmonics, 2021, 16, 905-913.	3.4	11
101	High birefringent, low loss and flattened dispersion asymmetric slotted core-based photonic crystal fiber in THz regime. International Journal of Modern Physics B, 2019, 33, 1950218.	2.0	10
102	Signal propagation parameters estimation through designed multi layer fibre with higher dominant modes using OptiFibre simulation. Journal of Optical Communications, 2022, .	4.7	9
103	Various transmission codes for the control of bit error rate in both optical wired and wireless communication channels. Journal of Optical Communications, 2022, .	4.7	9
104	Slotted-core photonic crystal fiber in gas-sensing application. , 2016, , .		8
105	A novel star shape photonic crystal fiber for low loss terahertz pulse propagation. Nano Communication Networks, 2019, 19, 26-32.	2.9	8
106	Identification of molecular biomarkers and pathways of NSCLC: insights from a systems biomedicine perspective. Journal of Genetic Engineering and Biotechnology, 2021, 19, 43.	3.3	8
107	Novel Detection of Diesel Adulteration Using Silver-Coated Surface Plasmon Resonance Sensor. Plasmonics, 2022, 17, 467-478.	3.4	8
108	Performance analysis of circularly photonic crystal fiber for orbital angular momentum mode generation. Optical Engineering, 2019, 58, 1.	1.0	8

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109	Design and Optimization of Highly Sensitive Photonic Crystal Fiber with Low Confinement Loss for Ethanol Detection. International Journal of Technology, 2016, 7, 1068.	0.8	8
110	Design of Simple Structure Gas Sensor Based on Hybrid Photonic Crystal Fiber. Cumhuriyet Aniversitesi Fen Fakltesi Fen Bilimleri Dergisi, 2016, 37, 187.	0.1	8
111	Identification of Potential Key Genes and Molecular Mechanisms of Medulloblastoma Based on Integrated Bioinformatics Approach. BioMed Research International, 2022, 2022, 1-17.	1.9	8
112	Highly birefringent, low loss single-mode porous fiber for THz wave guidance. Results in Physics, 2018, 11, 549-553.	4.1	7
113	Low material loss and dispersion flattened fiber for single mode THz-wave transmission applications. Results in Physics, 2018, 11, 638-642.	4.1	7
114	Numerical analysis of a highly nonlinear microstructured optical fiber with air-holes arranged in spirals. Optical Fiber Technology, 2019, 51, 90-95.	2.7	7
115	Theoretical analysis of highly temperature-sensitive fem based optical sensor in the infrared range. Optik, 2020, 205, 164060.	2.9	7
116	Anomalous birefringence and nonlinearity enhancement of $As_2S_3$ and $As_2S_5$ filled D-shape fiber for optical communication. Physica Scripta, 2021, 96, 115501.	2.5	7
117	Design and Analysis of Single-Mode PCF in Optical Communication Covering E to L Bands with Ultra-High Negative Dispersion. Ukrainian Journal of Physics, 2017, 62, 818-826.	0.2	7
118	Non return to zero line coding with suppressed carrier in FSO transceiver systems under light rain conditions. Journal of Optical Communications, 2020, .	4.7	7
119	Graphene Injected D-Shape Photonic Crystal Fiber for Nonlinear Optical Applications. Silicon, 2020, 12, 2293-2300.	3.3	6
120	Design and FEM analysis of pentagonal photonic crystal fiber for highly non-linear applications. Optical and Quantum Electronics, 2020, 52, 1.	3.3	6
121	Carbon disulphide (CS <sub>2</sub> ) enriched photonic crystal fiber for nonlinear application: a FEM scheme. Optical and Quantum Electronics, 2020, 52, 1.	3.3	6
122	Oligoporous-core Quasi cladding photonic crystal fiber based micro-sensor for alcohol detection. Physica B: Condensed Matter, 2020, 584, 412104.	2.7	6
123	Novel shaped solid-core photonic crystal fiber for the numerical study of nonlinear optical properties. Optical and Quantum Electronics, 2022, 54, .	3.3	6
124	Dataset on significant risk factors for Type 1 Diabetes: A Bangladeshi perspective. Data in Brief, 2018, 21, 700-708.	1.0	5
125	Exploring the optical properties of exposed-core-based photonic-crystal fibers. Journal of Computational Electronics, 2021, 20, 1260-1269.	2.5	5
126	Potential therapeutic drugs for ischemic stroke and stress disorder: A bioinformatics analysis. Informatics in Medicine Unlocked, 2019, 17, 100259.	3.4	4



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127	Network based study to explore genetic linkage between diabetes mellitus and myocardial ischemia: Bioinformatics approach. Gene Reports, 2020, 21, 100809.	0.8	4
128	Identification of Molecular Biomarkers and Key Pathways for Esophageal Carcinoma (EsC): A Bioinformatics Approach. BioMed Research International, 2022, 2022, 1-14.	1.9	4
129	Enhancement of sensitivity and birefringence of a gas sensor on micro-core based photonic crystal fiber. , 2016, , .		3
130	Porous core Photonic Crystal Fiber based chemical sensor. , 2016, , .		3
131	Identification of vital regulatory genes with network pathways among Huntingtonâ€™s, Parkinsonâ€™s, and Alzheimerâ€™s diseases. Network Modeling Analysis in Health Informatics and Bioinformatics, 2020, 9, 1.	2.1	3
132	Proposal of a Highly Birefringent Bow-Tie Photonic Crystal Fiber for Nonlinear Applications. Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering, 2020, , 659-670.	0.3	3
133	Design regulatory interaction network for anxiety disorders using R: A bioinformatics approach. Beni-Suef University Journal of Basic and Applied Sciences, 2018, 7, 326-335.	2.0	2
134	Common Gene Regulatory Network for Anxiety Disorder Using Cytoscape: Detection and Analysis. Lecture Notes in Computer Science, 2019, , 209-218.	1.3	2
135	Multicore bi-layer gold-coated SPR-based sensor for simultaneous measurements of CFC and HCFC. International Journal of Modern Physics B, 2019, 33, 1950316.	2.0	2
136	Protein interaction network and drug design of stomach cancer and associated disease: a bioinformatics approach. Journal of Proteins and Proteomics, 2021, 12, 33-43.	1.5	2
137	Significant pathway and biomarker identification of pancreatic cancer associated lung cancer. Informatics in Medicine Unlocked, 2021, 25, 100637.	3.4	2
138	Hazardous Consequences of Polygamy, Contraceptives and Number of Childs on cervical cancer in a low incoming country: Bangladesh. Cumhuriyet Aœniversitesi Fen FakÃ¼ltesi Fen Bilimleri Dergisi, 2016, 37, 74.	0.1	2
139	Highly sensitive SPR based PCF for biological substance sensing: design and analysis. , 2018, , .		2
140	Analysis of topological properties and drug discovery for bipolar disorder and associated diseases: A bioinformatics approach. Cellular and Molecular Biology, 2020, 66, 152-160.	0.9	2
141	Numerical demonstration of hexagonal-shaped dual-core-based photonic crystal fiber for a wide telecommunication window. Journal of Computational Electronics, 2019, 18, 1455-1468.	2.5	1
142	Popularity Prediction of Online News Item Based on Social Media Response. , 2019, , .		1
143	Computational analysis of regulatory genes network pathways among devastating cancer diseases. Journal of Proteins and Proteomics, 2020, 11, 63-76.	1.5	1
144	Drug compound prediction-based analysis of cigarette smoking to Pancreatic Cancer patients: A Bioinformatics study. , 2020, , .		1

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145	Topology Analysis of Protein-protein Interaction Network and Identification of Gene Ontology for Obstructive Sleep Apnea and Associated Diseases Using Bioinformatics Tools. , 2019, , .		0
146	Mining and predicting protein-drug interaction network of breast cancer risk genes. Gene Reports, 2020, 20, 100753.	0.8	0
147	Analyzing the protein-protein interaction network and the topological properties of prostate cancer and allied diseases: A computational bioinformatics approach. Gene Reports, 2020, 21, 100842.	0.8	0
148	A Bioinformatics Analysis to Identify Hub Genes from Protein-Protein Interaction Network for Cancer and Stress. Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering, 2020, , 671-679.	0.3	0