

Shobhitkumar Patel

List of Publications by Year in descending order

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128
papers

2,787
citations

159585

30
h-index

315739

38
g-index

129
all docs

129
docs citations

129
times ranked

978
citing authors

#	ARTICLE	IF	CITATIONS
1	5G technology of mobile communication: A survey. , 2013, , .		188
2	Graphene-based highly efficient and broadband solar absorber. Optical Materials, 2019, 96, 109330.	3.6	68
3	Metasurface based broadband solar absorber. Optical Materials, 2019, 89, 34-41.	3.6	67
4	Surface plasmon resonance biosensor based on graphene layer for the detection of waterborne bacteria. Journal of Biophotonics, 2022, 15, e202200001.	2.3	55
5	Numerical investigation of graphene-based efficient and broadband metasurface for terahertz solar absorber. Journal of Materials Science, 2020, 55, 3462-3469.	3.7	53
6	Ultra-Wideband, Polarization-Independent, Wide-Angle Multilayer Swastika-Shaped Metamaterial Solar Energy Absorber with Absorption Prediction using Machine Learning. Advanced Theory and Simulations, 2022, 5, .	2.8	53
7	Design of graphene metasurface based sensitive infrared biosensor. Sensors and Actuators A: Physical, 2020, 301, 111767.	4.1	50
8	High gain multiband and frequency reconfigurable metamaterial superstrate microstrip patch antenna for C/X/Ku-band wireless network applications. Wireless Networks, 2021, 27, 2131-2146.	3.0	48
9	Broadband metasurface solar absorber in the visible and near-infrared region. Materials Research Express, 2019, 6, 086213.	1.6	43
10	Graphene-Based Highly Sensitive Refractive Index Biosensors Using C-Shaped Metasurface. IEEE Sensors Journal, 2020, 20, 6359-6366.	4.7	43
11	CWDM communication system based inline erbium-doped fiber amplifiers with the linear geometrical polarization model. Journal of Optical Communications, 2021, .	4.7	42
12	Broadband metamaterial-based near-infrared absorber using an array of uniformly placed gold resonators. Journal of the Optical Society of America B: Optical Physics, 2020, 37, 2163.	2.1	42
13	Differential coding scheme based FSO channel for optical coherent DP-16 QAM transceiver systems. Journal of Optical Communications, 2021, .	4.7	41
14	Broadband and efficient graphene solar absorber using periodical array of C-shaped metasurface. Optical and Quantum Electronics, 2020, 52, 1.	3.3	40
15	Tunable infrared metamaterial-based biosensor for detection of hemoglobin and urine using phase change material. Scientific Reports, 2021, 11, 7101.	3.3	39
16	Encoding and Tuning of THz Metasurface-Based Refractive Index Sensor With Behavior Prediction Using XGBoost Regressor. IEEE Access, 2022, 10, 24797-24814.	4.2	39
17	Plasmonic nanoantennas: enhancing light-matter interactions at the nanoscale. EPJ Applied Metamaterials, 2015, 2, 4.	1.5	37
18	An ultra-compact four-port 4x4 superwideband MIMO antenna including mitigation of dual notched bands characteristics designed for wireless network applications. AEU - International Journal of Electronics and Communications, 2020, 123, 153332.	2.9	37

#	ARTICLE	IF	CITATIONS
19	Wideband graphene-based near-infrared solar absorber using C-shaped rectangular sawtooth metasurface. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2021, 126, 114493.	2.7	37
20	Numerical investigation of wideband L-shaped metasurface based solar absorber for visible and ultraviolet region. <i>Physica B: Condensed Matter</i> , 2021, 601, 412503.	2.7	37
21	Broadband compact microstrip patch antenna design loaded by multiple split ring resonator superstrate and substrate. <i>Waves in Random and Complex Media</i> , 2017, 27, 92-102.	2.7	36
22	Graphene-based tunable infrared multi band absorber. <i>Optics Communications</i> , 2020, 474, 126109.	2.1	36
23	Caching scheme for information-centric networks with balanced content distribution. <i>International Journal of Communication Systems</i> , 2022, 35, .	2.5	36
24	Graphene based tunable broadband far-infrared absorber. <i>Superlattices and Microstructures</i> , 2018, 124, 113-120.	3.1	35
25	Highly Sensitive Graphene-Based Refractive Index Biosensor Using Gold Metasurface Array. <i>IEEE Photonics Technology Letters</i> , 2020, 32, 681-684.	2.5	35
26	Graphene-based tunable near-infrared absorber. <i>Microwave and Optical Technology Letters</i> , 2019, 61, 1161-1165.	1.4	34
27	Graphene-Based Plasmonic Absorber for Biosensing Applications Using Gold Split Ring Resonator Metasurfaces. <i>Journal of Lightwave Technology</i> , 2021, 39, 5617-5624.	4.6	33
28	QAM receiver based on light amplifiers measured with effective role of optical coherent duobinary transmitter. <i>Journal of Optical Communications</i> , 2022, .	4.7	33
29	Optimization of Metamaterial-Based Solar Energy Absorber for Enhancing Solar Thermal Energy Conversion Using Artificial Intelligence. <i>Advanced Theory and Simulations</i> , 2022, 5, .	2.8	33
30	Numerical investigation of gold metasurface based broadband near-infrared and near-visible solar absorber. <i>Physica B: Condensed Matter</i> , 2020, 591, 412248.	2.7	32
31	Sensitivity Analysis of Metasurface Array-Based Refractive Index Biosensors. <i>IEEE Sensors Journal</i> , 2021, 21, 1470-1477.	4.7	32
32	Comparative analysis of metasurface array-based solar absorber for visible region. <i>Optical and Quantum Electronics</i> , 2021, 53, 1.	3.3	32
33	Metasurface-based solar absorber with absorption prediction using machine learning. <i>Optical Materials</i> , 2022, 124, 112049.	3.6	32
34	Graphene based highly sensitive refractive index sensor using double split ring resonator metasurface. <i>Optical and Quantum Electronics</i> , 2022, 54, 1.	3.3	31
35	Design of a nano-sensor for cancer cell detection based on a ternary photonic crystal with high sensitivity and low detection limit. <i>Chinese Journal of Physics</i> , 2022, 77, 1168-1181.	3.9	31
36	Pattern controlled and frequency tunable microstrip antenna loaded with multiple split ring resonators. <i>IET Microwaves, Antennas and Propagation</i> , 2018, 12, 390-394.	1.4	30

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37	Review on Graphene-based Absorbers for Infrared to Ultraviolet Frequencies. Khoa Há»é á»©ng Dá»¥ng, 2021, 5, 214.	3.0	30
38	Design, analysis and characterization of four port multiple-input-multiple-output UWB-X band antenna with band rejection ability for wireless network applications. Wireless Networks, 2020, 26, 4287-4302.	3.0	29
39	Graphene-silicon hybrid chirped-superstructure bragg gratings for far infrared frequency. Materials Research Express, 2019, 6, 065606.	1.6	28
40	Detection of glucose concentration using a surface plasmon resonance biosensor based on barium titanate layers and molybdenum disulphide sheets. Physica Scripta, 2022, 97, 065501.	2.5	28
41	Investigation on radiation improvement of corner truncated triband square microstrip patch antenna with double negative material. Journal of Electromagnetic Waves and Applications, 2013, 27, 819-833.	1.6	27
42	Broadband grapheneá»based metasurface solar absorber. Microwave and Optical Technology Letters, 2020, 62, 1366-1373.	1.4	27
43	Tunable and highly sensitive graphene-based biosensor with circle/split ring resonator metasurface for sensing hemoglobin/urine biomolecules. Physica B: Condensed Matter, 2022, 624, 413399.	2.7	27
44	Meandered multiband metamaterial square microstrip patch antenna design. Waves in Random and Complex Media, 2012, 22, 475-487.	2.7	26
45	Integrated bluetooth/LTE2600 superwideband monopole antenna with triple notched (WiMAX/WLAN/DSS) band characteristics for UWB/X/Ku band wireless network applications. Wireless Networks, 2020, 26, 2845-2855.	3.0	25
46	One-dimensional ring mirror-defect photonic crystal for detection of mycobacterium tuberculosis bacteria. Optik, 2020, 219, 165097.	2.9	25
47	High gain and frequency reconfigurable copper and liquid metamaterial tooth based microstrip patch antenna. AEU - International Journal of Electronics and Communications, 2021, 137, 153799.	2.9	25
48	Design and fabrication of multiband reconfigurable copper and liquid multiple complementary split-ring resonator based patch antenna. Waves in Random and Complex Media, 0, , 1-24.	2.7	25
49	Graphene-based metasurface solar absorber design with absorption prediction using machine learning. Scientific Reports, 2022, 12, 2609.	3.3	25
50	Enhanced bandwidth and gain of compact microstrip antennas loaded with multiple corrugated split ring resonators. Journal of Electromagnetic Waves and Applications, 2016, 30, 945-961.	1.6	24
51	Graphene-based tunable reflector superstructure grating. Applied Physics A: Materials Science and Processing, 2019, 125, 1.	2.3	24
52	E-shape microstrip patch antenna design for GPS application. , 2011, , .		23
53	Frequency-reconfigurable and high-gain metamaterial microstrip-radiating structure. Waves in Random and Complex Media, 2019, 29, 523-539.	2.7	23
54	Graphene-based metasurface solar absorber design for the visible and near-infrared region with behavior prediction using Polynomial Regression. Optik, 2022, 262, 169298.	2.9	23

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55	Tunable graphene-silica hybrid metasurface for far-infrared frequency. <i>Optical Materials</i> , 2019, 91, 155-170.	3.6	22
56	Numerical investigation of liquid metamaterial-based superstrate microstrip radiating structure. <i>Physica B: Condensed Matter</i> , 2020, 585, 412095.	2.7	22
57	High sensitivity refractive index sensor in long-range surface plasmon resonance based on side polished optical fiber. <i>Optical Fiber Technology</i> , 2021, 61, 102449.	2.7	22
58	Tunable high-gain and multiband microstrip antenna based on liquid/copper split-ring resonator superstrates for C/X band communication. <i>Physica B: Condensed Matter</i> , 2021, 618, 413203.	2.7	22
59	Design of an ultra-wideband solar energy absorber with wide-angle and polarization independent characteristics. <i>Optical Materials</i> , 2022, 131, 112683.	3.6	22
60	Directive and tunable graphene based optical leaky wave radiating structure. <i>Materials Research Express</i> , 2019, 6, 055607.	1.6	21
61	Graphene based tunable grating structure. <i>Materials Research Express</i> , 2019, 6, 025602.	1.6	21
62	Graphene-Based Refractive Index Sensor Using Machine Learning for Detection of Mycobacterium Tuberculosis Bacteria. <i>IEEE Transactions on Nanobioscience</i> , 2023, 22, 92-98.	3.3	20
63	Metamaterial-based refractive index sensor using Ge ₂ Sb ₂ Te ₅ substrate for glucose detection. <i>Microwave and Optical Technology Letters</i> , 2022, 64, 867-872.	1.4	20
64	Graphene-based multilayer metasurface solar absorber with parameter optimization and behavior prediction using Long Short-Term Memory model. <i>Renewable Energy</i> , 2022, 191, 47-58.	8.9	20
65	Spatial single mode laser source interaction with measured pulse based parabolic index multimode fiber. <i>Journal of Optical Communications</i> , 2021, .	4.7	20
66	Graphene-based directive optical leaky wave antenna. <i>Microwave and Optical Technology Letters</i> , 2019, 61, 153-157.	1.4	19
67	Polarization insensitive graphene-based tunable frequency selective surface for far-infrared frequency spectrum. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2020, 120, 114049.	2.7	19
68	Sensitivity enhancement of an optical sensor based on a binary photonic crystal for the detection of Escherichia coli by controlling the central wavelength and the angle of incidence. <i>Optical and Quantum Electronics</i> , 2022, 54, 1.	3.3	19
69	Size reduction in microstrip based meandered radiating structure using artificial substrate. <i>International Journal of Applied Electromagnetics and Mechanics</i> , 2013, 41, 207-216.	0.6	18
70	Numerical analysis of polarization-insensitive squared spiral-shaped graphene metasurface with negative refractive index. <i>Applied Physics B: Lasers and Optics</i> , 2020, 126, 1.	2.2	17
71	Encrypted and tunable graphene-based metasurface refractive index sensor. <i>Microwave and Optical Technology Letters</i> , 2022, 64, 77-82.	1.4	16
72	Highly sensitive and tunable refractive index biosensor based on phase change material. <i>Physica B: Condensed Matter</i> , 2021, 622, 413357.	2.7	16

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73	Complementary split ring resonator metamaterial to achieve multifrequency operation in microstrip-based radiating structure design. <i>Journal of Modern Optics</i> , 2014, 61, 249-256.	1.3	15
74	Metamaterial superstrate-loaded meandered microstrip-based radiating structure for bandwidth enhancement. <i>Journal of Modern Optics</i> , 2014, 61, 923-930.	1.3	15
75	Broadband liquid metamaterial radome design. <i>Waves in Random and Complex Media</i> , 2020, 30, 328-339.	2.7	15
76	Numerical investigation of tunable metasurface of graphene split-ring resonator for terahertz frequency with reflection controlling property. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2020, 118, 113910.	2.7	15
77	Ultra-broadband, wide-angle plus-shape slotted metamaterial solar absorber design with absorption forecasting using machine learning. <i>Scientific Reports</i> , 2022, 12, .	3.3	15
78	Triband Microstrip-Based Radiating Structure Design using Split Ring Resonator and Complementary Split Ring Resonator. <i>Microwave and Optical Technology Letters</i> , 2013, 55, 2219-2222.	1.4	14
79	Multi-layered Graphene Silica-Based Tunable Absorber for Infrared Wavelength Based on Circuit Theory Approach. <i>Plasmonics</i> , 2020, 15, 1767-1779.	3.4	14
80	Broadband polarization-insensitive Jerusalem-shaped metasurface absorber based on phase-change material for the visible region. <i>Physica B: Condensed Matter</i> , 2022, 624, 413440.	2.7	14
81	Design of S-shaped multiband microstrip patch antenna. , 2012, , .		13
82	Liquid metamaterial based microstrip antenna. <i>Microwave and Optical Technology Letters</i> , 2018, 60, 318-322.	1.4	12
83	Multiband Jerusalem cross-shaped angle insensitive metasurface absorber for X-band application. <i>Journal of Electromagnetic Waves and Applications</i> , 2022, 36, 180-192.	1.6	12
84	Dualband parasitic metamaterial square microstrip patch antenna design. <i>International Journal of Ultra Wideband Communications and Systems</i> , 2012, 2, 225.	0.1	11
85	Liquid metamaterial based radome design. <i>Microwave and Optical Technology Letters</i> , 2018, 60, 2303-2309.	1.4	11
86	Low-cost, multiband, high gain and reconfigurable microstrip radiating structure using PIN diode for 5G/Wi-MAX/WLAN applications. <i>Physica B: Condensed Matter</i> , 2022, 639, 413972.	2.7	11
87	Design of truncated microstrip based radiating structure loaded by split ring resonator. <i>International Journal of Applied Electromagnetics and Mechanics</i> , 2013, 42, 249-258.	0.6	10
88	Deep learning inspired routing in ICN using Monte Carlo Tree Search algorithm. <i>Journal of Parallel and Distributed Computing</i> , 2021, 150, 104-111.	4.1	10
89	Ultra-broadband and polarization-insensitive metasurface absorber with behavior prediction using machine learning. <i>AEJ - Alexandria Engineering Journal</i> , 2022, 61, 10379-10393.	6.4	10
90	Multiband metamaterial truncated square microstrip-based radiating structure design. <i>Waves in Random and Complex Media</i> , 2014, 24, 19-34.	2.7	9

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91	Signal propagation parameters estimation through designed multi layer fibre with higher dominant modes using OptiFibre simulation. Journal of Optical Communications, 2022, .	4.7	9
92	Multilayer liquid metamaterial radome design for performance enhancement of microstrip patch antenna. Microwave and Optical Technology Letters, 2018, 60, 600-605.	1.4	8
93	Design of optical leaky wave antenna with circular and diamond shape Si perturbations for enhancing its performance. Microwave and Optical Technology Letters, 2018, 60, 1395-1398.	1.4	8
94	High gain metamaterial radome design for microstrip based radiating structure. Materials Research Express, 2019, 6, 025803.	1.6	8
95	Square-tooth split ring resonator based a novel metamaterial for bandwidth and radiation improvement in microstrip-based radiating structure design. Journal of Modern Optics, 2013, 60, 1821-1829.	1.3	7
96	Properties of the defect mode of a ternary photonic crystal having an n-doped semiconductor as a defect layer: TE case. Materials Science in Semiconductor Processing, 2022, 144, 106626.	4.0	7
97	Liquid metasurface based periodically stacked radome design. Microwave and Optical Technology Letters, 2018, 60, 2456-2462.	1.4	6
98	Highly directive optical radiating structure with circular and diamond shape Si perturbations. Materials Research Express, 2019, 6, 096202.	1.6	6
99	Numerical investigation of dual guided elliptical ring core few-mode fiber for space division multiplexing applications. Optik, 2021, 228, 166111.	2.9	6
100	Multi-layered graphene silica-metasurface based infrared polarizer structure. Optical and Quantum Electronics, 2022, 54, 1.	3.3	6
101	Exploring the optical properties of exposed-core-based photonic-crystal fibers. Journal of Computational Electronics, 2021, 20, 1260-1269.	2.5	5
102	Numerical simulation of a highly directional optical leaky wave antenna using diamond-shaped graphene perturbations. Applied Optics, 2020, 59, 2225.	1.8	5
103	Split-ring resonator metamaterial-loaded parallel-plate structure for performance enhancement. Journal of Modern Optics, 2014, 61, 1282-1289.	1.3	4
104	Numerical investigation of graphene-based metamaterial microstrip radiating structure. Materials Research Express, 2020, 7, 016203.	1.6	4
105	Photocatalytic Application of Two-dimensional Materials-based Heterostructure Based on Molybdenum and Tungsten Disulfides and Gallium Nitride: A Density-Functional Theory Study. Materials Today Communications, 2020, 25, 101646.	1.9	4
106	SVM-based Analysis for Predicting Success Rate of Interest Packets in Information Centric Networks. Applied Artificial Intelligence, 2022, 36, .	3.2	4
107	Broadband and angle-insensitive metasurface solar absorber. Optical and Quantum Electronics, 2022, 54, .	3.3	4
108	E-shaped patch antenna analysis for multiple applications. , 2011, , .		3

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109	Design of meandered H-shaped square microstrip patch antenna. , 2012, , .		3
110	Multiband meandered miniaturized patch antenna loaded with split ring resonator and thin wire arrays. Microwave and Optical Technology Letters, 2014, 56, 306-310.	1.4	3
111	Nonlinear studies of graphene oxide and its application to moisture detection in transformer oil using D-shaped optical fibre. Journal of Modern Optics, 2020, 67, 619-627.	1.3	3
112	Graphene-based c-shaped metasurface broadband solar absorber. , 2020, , .		3
113	Exploration of multi-metallic thin layer/MgF2 in side-polished optical fiber as long-range surface plasmons (LRSPs) alcohol sensor. Optical and Quantum Electronics, 2022, 54, 1.	3.3	3
114	Numerical investigation of cross metamaterial shaped ultrawideband solar absorber. Optical and Quantum Electronics, 2022, 54, .	3.3	3
115	Pyramidal horn antenna design loaded by metamaterial for performance enhancement. , 2015, , .		2
116	Numerical investigation of tunable multistacked metamaterial-based graphene grating. Microwave and Optical Technology Letters, 2021, 63, 1106-1111.	1.4	2
117	Graphene-based highly efficient C-shaped metasurface for terahertz absorber. , 2020, , .		2
118	Implementation of Automatic Skin Lesions Diagnosis-A Deep Learning Ensembling Approach. Khoa Há»c á»©ng Dá»¥ng, 2020, 4, 261.	3.0	2
119	Graphene-Based Tunable Broadband Polarizer for Infrared Frequency. Brazilian Journal of Physics, 2022, 52, 1.	1.4	2
120	Wideband Miniaturized Patch Antenna Design and Comparative Analysis. Communications in Computer and Information Science, 2011, , 111-116.	0.5	1
121	Elliptic low pass filter design using DGS slot for microstrip lines. , 2013, , .		1
122	Recent advancement in RF and microwave power measurements. , 2014, , .		1
123	S-Shape meandered microstrip patch antenna design using metamaterial. , 2014, , .		1
124	Broadband and high gain multiband patch antenna designs using corrugated split ring resonators. , 2017, , .		1
125	Nanobeam extraction with periodic optical grating staircase structure. Microwave and Optical Technology Letters, 2018, 60, 2148-2153.	1.4	1
126	Back reflector coating using a photonic crystal for highly efficient solar cells using a new metamaterial with the most extreme positive index of refraction. Indian Journal of Physics, 2023, 97, 577-588.	1.8	1

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127	Metasurface based far infrared solar absorber. , 2019, , .		0
128	Graphene metasurface based tunable double split-ring resonator for far infrared frequency region. , 2019, , .		0