

# Shobhitkumar Patel

## List of Publications by Citations

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110  
papers

1,393  
citations

20  
h-index

27  
g-index

129  
ext. papers

2,125  
ext. citations

2.2  
avg. IF

5.56  
L-index

#	Paper	IF	Citations
110	5G technology of mobile communication: A survey <b>2013</b> ,		114
109	Metasurface based broadband solar absorber. <i>Optical Materials</i> , <b>2019</b> , 89, 34-41	3.3	38
108	Graphene-based highly efficient and broadband solar absorber. <i>Optical Materials</i> , <b>2019</b> , 96, 109330	3.3	37
107	Broadband metasurface solar absorber in the visible and near-infrared region. <i>Materials Research Express</i> , <b>2019</b> , 6, 086213	1.7	28
106	Broadband compact microstrip patch antenna design loaded by multiple split ring resonator superstrate and substrate. <i>Waves in Random and Complex Media</i> , <b>2017</b> , 27, 92-102	1.9	27
105	Numerical investigation of graphene-based efficient and broadband metasurface for terahertz solar absorber. <i>Journal of Materials Science</i> , <b>2020</b> , 55, 3462-3469	4.3	27
104	Graphene based tunable broadband far-infrared absorber. <i>Superlattices and Microstructures</i> , <b>2018</b> , 124, 113-120	2.8	26
103	Design of graphene metasurface based sensitive infrared biosensor. <i>Sensors and Actuators A: Physical</i> , <b>2020</b> , 301, 111767	3.9	25
102	Graphene-based tunable near-infrared absorber. <i>Microwave and Optical Technology Letters</i> , <b>2019</b> , 61, 1161-1165	1.2	23
101	Plasmonic nanoantennas: enhancing light-matter interactions at the nanoscale. <i>EPJ Applied Metamaterials</i> , <b>2015</b> , 2, 4	0.8	23
100	Investigation on radiation improvement of corner truncated triband square microstrip patch antenna with double negative material. <i>Journal of Electromagnetic Waves and Applications</i> , <b>2013</b> , 27, 819-833	1.3	23
99	Graphene-silicon hybrid chirped-superstructure bragg gratings for far infrared frequency. <i>Materials Research Express</i> , <b>2019</b> , 6, 065606	1.7	22
98	Broadband and efficient graphene solar absorber using periodical array of C-shaped metasurface. <i>Optical and Quantum Electronics</i> , <b>2020</b> , 52, 1	2.4	22
97	Graphene-Based Highly Sensitive Refractive Index Biosensors Using C-Shaped Metasurface. <i>IEEE Sensors Journal</i> , <b>2020</b> , 20, 6359-6366	4	21
96	Meandered multiband metamaterial square microstrip patch antenna design. <i>Waves in Random and Complex Media</i> , <b>2012</b> , 22, 475-487	1.9	20
95	Graphene based highly sensitive refractive index sensor using double split ring resonator metasurface. <i>Optical and Quantum Electronics</i> , <b>2022</b> , 54, 1	2.4	20
94	Pattern controlled and frequency tunable microstrip antenna loaded with multiple split ring resonators. <i>IET Microwaves, Antennas and Propagation</i> , <b>2018</b> , 12, 390-394	1.6	19

93	Graphene-based tunable reflector superstructure grating. <i>Applied Physics A: Materials Science and Processing</i> , <b>2019</b> , 125, 1	2.6	19
92	Numerical investigation of wideband L-shaped metasurface based solar absorber for visible and ultraviolet region. <i>Physica B: Condensed Matter</i> , <b>2021</b> , 601, 412503	2.8	19
91	High gain multiband and frequency reconfigurable metamaterial superstrate microstrip patch antenna for C/X/Ku-band wireless network applications. <i>Wireless Networks</i> , <b>2021</b> , 27, 2131-2146	2.5	19
90	Tunable graphene-silica hybrid metasurface for far-infrared frequency. <i>Optical Materials</i> , <b>2019</b> , 91, 155-170	1.7	18
89	Wideband graphene-based near-infrared solar absorber using C-shaped rectangular sawtooth metasurface. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , <b>2021</b> , 126, 114493	3	18
88	Broadband graphene-based metasurface solar absorber. <i>Microwave and Optical Technology Letters</i> , <b>2020</b> , 62, 1366-1373	1.2	17
87	Enhanced bandwidth and gain of compact microstrip antennas loaded with multiple corrugated split ring resonators. <i>Journal of Electromagnetic Waves and Applications</i> , <b>2016</b> , 30, 945-961	1.3	17
86	Frequency-reconfigurable and high-gain metamaterial microstrip-radiating structure. <i>Waves in Random and Complex Media</i> , <b>2019</b> , 29, 523-539	1.9	17
85	Sensitivity Analysis of Metasurface Array-Based Refractive Index Biosensors. <i>IEEE Sensors Journal</i> , <b>2021</b> , 21, 1470-1477	4	16
84	Graphene-based tunable infrared multi band absorber. <i>Optics Communications</i> , <b>2020</b> , 474, 126109	2	15
83	Numerical investigation of gold metasurface based broadband near-infrared and near-visible solar absorber. <i>Physica B: Condensed Matter</i> , <b>2020</b> , 591, 412248	2.8	15
82	Highly Sensitive Graphene-Based Refractive Index Biosensor Using Gold Metasurface Array. <i>IEEE Photonics Technology Letters</i> , <b>2020</b> , 32, 681-684	2.2	15
81	Comparative analysis of metasurface array-based solar absorber for visible region. <i>Optical and Quantum Electronics</i> , <b>2021</b> , 53, 1	2.4	15
80	Directive and tunable graphene based optical leaky wave radiating structure. <i>Materials Research Express</i> , <b>2019</b> , 6, 055607	1.7	15
79	Graphene-based directive optical leaky wave antenna. <i>Microwave and Optical Technology Letters</i> , <b>2019</b> , 61, 153-157	1.2	15
78	Metamaterial superstrate-loaded meandered microstrip-based radiating structure for bandwidth enhancement. <i>Journal of Modern Optics</i> , <b>2014</b> , 61, 923-930	1.1	14
77	Broadband metamaterial-based near-infrared absorber using an array of uniformly placed gold resonators. <i>Journal of the Optical Society of America B: Optical Physics</i> , <b>2020</b> , 37, 2163	1.7	14
76	Size reduction in microstrip based meandered radiating structure using artificial substrate. <i>International Journal of Applied Electromagnetics and Mechanics</i> , <b>2013</b> , 41, 207-216	0.4	13

75	Graphene based tunable grating structure. <i>Materials Research Express</i> , <b>2019</b> , 6, 025602	1.7	13
74	High gain and frequency reconfigurable copper and liquid metamaterial tooth based microstrip patch antenna. <i>AEU - International Journal of Electronics and Communications</i> , <b>2021</b> , 137, 153799	2.8	13
73	Review on Graphene-based Absorbers for Infrared to Ultraviolet Frequencies <b>2021</b> , 5, 214		13
72	One-dimensional ring mirror-defect photonic crystal for detection of mycobacterium tuberculosis bacteria. <i>Optik</i> , <b>2020</b> , 219, 165097	2.5	12
71	Graphene-Based Plasmonic Absorber for Biosensing Applications Using Gold Split Ring Resonator Metasurfaces. <i>Journal of Lightwave Technology</i> , <b>2021</b> , 39, 5617-5624	4	12
70	Numerical investigation of liquid metamaterial-based superstrate microstrip radiating structure. <i>Physica B: Condensed Matter</i> , <b>2020</b> , 585, 412095	2.8	11
69	Numerical analysis of polarization-insensitive squared spiral-shaped graphene metasurface with negative refractive index. <i>Applied Physics B: Lasers and Optics</i> , <b>2020</b> , 126, 1	1.9	11
68	Tunable infrared metamaterial-based biosensor for detection of hemoglobin and urine using phase change material. <i>Scientific Reports</i> , <b>2021</b> , 11, 7101	4.9	11
67	Ultra-Wideband, Polarization-Independent, Wide-Angle Multilayer Swastika-Shaped Metamaterial Solar Energy Absorber with Absorption Prediction using Machine Learning. <i>Advanced Theory and Simulations</i> , 2100604	3.5	11
66	Polarization insensitive graphene-based tunable frequency selective surface for far-infrared frequency spectrum. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , <b>2020</b> , 120, 114049	3	10
65	Design, analysis and characterization of four port multiple-input-multiple-output UWB-X band antenna with band rejection ability for wireless network applications. <i>Wireless Networks</i> , <b>2020</b> , 26, 4287-4302	2.5	10
64	Design of truncated microstrip based radiating structure loaded by split ring resonator. <i>International Journal of Applied Electromagnetics and Mechanics</i> , <b>2013</b> , 42, 249-258	0.4	10
63	Triband Microstrip Based Radiating Structure Design using Split Ring Resonator and Complementary Split Ring Resonator. <i>Microwave and Optical Technology Letters</i> , <b>2013</b> , 55, 2219-2222	1.2	10
62	E-shape microstrip patch antenna design for GPS application <b>2011</b> ,		10
61	Dualband parasitic metamaterial square microstrip patch antenna design. <i>International Journal of Ultra Wideband Communications and Systems</i> , <b>2012</b> , 2, 225	0	10
60	Metasurface-based solar absorber with absorption prediction using machine learning. <i>Optical Materials</i> , <b>2022</b> , 124, 112049	3.3	10
59	Broadband liquid metamaterial radome design. <i>Waves in Random and Complex Media</i> , <b>2020</b> , 30, 328-339	1.9	10
58	An ultra-compact four-port 4 <sup>th</sup> order superwideband MIMO antenna including mitigation of dual notched bands characteristics designed for wireless network applications. <i>AEU - International Journal of Electronics and Communications</i> , <b>2020</b> , 123, 153332	2.8	9

57	Complementary split ring resonator metamaterial to achieve multifrequency operation in microstrip-based radiating structure design. <i>Journal of Modern Optics</i> , <b>2014</b> , 61, 249-256	1.1	9
56	Multiband metamaterial truncated square microstrip-based radiating structure design. <i>Waves in Random and Complex Media</i> , <b>2014</b> , 24, 19-34	1.9	9
55	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> , <b>2020</b> , 118, 113910	3	9
54	Encoding and Tuning of THz Metasurface-Based Refractive Index Sensor With Behavior Prediction Using XGBoost Regressor. <i>IEEE Access</i> , <b>2022</b> , 10, 24797-24814	3.5	9
53	Graphene-based metasurface solar absorber design with absorption prediction using machine learning.. <i>Scientific Reports</i> , <b>2022</b> , 12, 2609	4.9	9
52	Liquid metamaterial based microstrip antenna. <i>Microwave and Optical Technology Letters</i> , <b>2018</b> , 60, 318-322		8
51	Design of optical leaky wave antenna with circular and diamond Si perturbations for enhancing its performance. <i>Microwave and Optical Technology Letters</i> , <b>2018</b> , 60, 1395-1398	1.2	8
50	Liquid metamaterial based radome design. <i>Microwave and Optical Technology Letters</i> , <b>2018</b> , 60, 2303-2309		8
49	Integrated bluetooth/LTE2600 superwideband monopole antenna with triple notched (WiMAX/WLAN/DSS) band characteristics for UWB/X/Ku band wireless network applications. <i>Wireless Networks</i> , <b>2020</b> , 26, 2845-2855	2.5	8
48	High sensitivity refractive index sensor in long-range surface plasmon resonance based on side polished optical fiber. <i>Optical Fiber Technology</i> , <b>2021</b> , 61, 102449	2.4	8
47	Tunable and highly sensitive graphene-based biosensor with circle/split ring resonator metasurface for sensing hemoglobin/urine biomolecules. <i>Physica B: Condensed Matter</i> , <b>2022</b> , 624, 413399	2.8	8
46	Multi-layered Graphene Silica-Based Tunable Absorber for Infrared Wavelength Based on Circuit Theory Approach. <i>Plasmonics</i> , <b>2020</b> , 15, 1767-1779	2.4	7
45	Design of S-shaped multiband microstrip patch antenna <b>2012</b> ,		7
44	Design of Microstrip Meandered Patch Antenna for Mobile Communication. <i>Communications in Computer and Information Science</i> , <b>2011</b> , 184-189	0.3	7
43	Metamaterial-based refractive index sensor using Ge 2 Sb 2 Te 5 substrate for glucose detection. <i>Microwave and Optical Technology Letters</i> , <b>2022</b> , 64, 867-872	1.2	7
42	Multilayer liquid metamaterial radome design for performance enhancement of microstrip patch antenna. <i>Microwave and Optical Technology Letters</i> , <b>2018</b> , 60, 600-605	1.2	6
41	Highly directive optical radiating structure with circular and diamond shape Si perturbations. <i>Materials Research Express</i> , <b>2019</b> , 6, 096202	1.7	6
40	Square-tooth split ring resonator in novel metamaterial for bandwidth and radiation improvement in microstrip-based radiating structure design. <i>Journal of Modern Optics</i> , <b>2013</b> , 60, 1821-1829	1.1	6

39	Design and fabrication of multiband reconfigurable copper and liquid multiple complementary split-ring resonator based patch antenna. <i>Waves in Random and Complex Media</i> ,1-24	1.9	6
38	Liquid metasurface-based periodically stacked radome design. <i>Microwave and Optical Technology Letters</i> , <b>2018</b> , 60, 2456-2462	1.2	6
37	Multiband Jerusalem cross-shaped angle insensitive metasurface absorber for X-band application. <i>Journal of Electromagnetic Waves and Applications</i> ,1-13	1.3	6
36	Encrypted and tunable graphene-based metasurface refractive index sensor. <i>Microwave and Optical Technology Letters</i> ,	1.2	6
35	Graphene-Based Refractive Index Sensor Using Machine Learning for Detection of Mycobacterium Tuberculosis Bacteria.. <i>IEEE Transactions on Nanobioscience</i> , <b>2022</b> , PP,	3.4	6
34	Optimization of Metamaterial-Based Solar Energy Absorber for Enhancing Solar Thermal Energy Conversion Using Artificial Intelligence. <i>Advanced Theory and Simulations</i> ,2200139	3.5	6
33	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> , <b>2021</b> , 618, 413203	2.8	5
32	Broadband polarization-insensitive Jerusalem-shaped metasurface absorber based on phase-change material for the visible region. <i>Physica B: Condensed Matter</i> , <b>2022</b> , 624, 413440	2.8	5
31	Graphene-based multilayer metasurface solar absorber with parameter optimization and behavior prediction using Long Short-Term Memory model. <i>Renewable Energy</i> , <b>2022</b> , 191, 47-58	8.1	5
30	Split-ring resonator metamaterial-loaded parallel-plate structure for performance enhancement. <i>Journal of Modern Optics</i> , <b>2014</b> , 61, 1282-1289	1.1	4
29	Surface plasmon resonance biosensor based on graphene layer for the detection of waterborne bacteria.. <i>Journal of Biophotonics</i> , <b>2022</b> , e202200001	3.1	4
28	Highly sensitive and tunable refractive index biosensor based on phase change material. <i>Physica B: Condensed Matter</i> , <b>2021</b> , 622, 413357	2.8	4
27	Graphene-based metasurface solar absorber design for the visible and near-infrared region with behavior prediction using Polynomial Regression. <i>Optik</i> , <b>2022</b> , 169298	2.5	4
26	Nonlinear studies of graphene oxide and its application to moisture detection in transformer oil using D-shaped optical fibre. <i>Journal of Modern Optics</i> , <b>2020</b> , 67, 619-627	1.1	3
25	Multiband meandered miniaturized patch antenna loaded with split ring resonator and thin wire arrays. <i>Microwave and Optical Technology Letters</i> , <b>2014</b> , 56, 306-310	1.2	3
24	Numerical simulation of a highly directional optical leaky wave antenna using diamond-shaped graphene perturbations. <i>Applied Optics</i> , <b>2020</b> , 59, 2225-2230	1.7	3
23	Graphene-based c-shaped metasurface broadband solar absorber <b>2020</b> ,		3
22	Numerical investigation of graphene-based metamaterial microstrip radiating structure. <i>Materials Research Express</i> , <b>2020</b> , 7, 016203	1.7	3

21	Exploring the optical properties of exposed-core-based photonic-crystal fibers. <i>Journal of Computational Electronics</i> , <b>2021</b> , 20, 1260-1269	1.8	3
20	High gain metamaterial radome design for microstrip based radiating structure. <i>Materials Research Express</i> , <b>2019</b> , 6, 025803	1.7	3
19	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> , <b>2022</b> , 413972	2.8	3
18	Design of meandered H-shaped square microstrip patch antenna <b>2012</b> ,		2
17	Photocatalytic Application of Two-dimensional Materials-based Heterostructure Based on Molybdenum and Tungsten Disulfides and Gallium Nitride: A Density-Functional Theory Study. <i>Materials Today Communications</i> , <b>2020</b> , 25, 101646	2.5	2
16	Deep learning inspired routing in ICN using Monte Carlo Tree Search algorithm. <i>Journal of Parallel and Distributed Computing</i> , <b>2021</b> , 150, 104-111	4.4	2
15	Numerical investigation of dual guided elliptical ring core few-mode fiber for space division multiplexing applications. <i>Optik</i> , <b>2021</b> , 228, 166111	2.5	2
14	Nanobeam extraction with periodic optical grating staircase structure. <i>Microwave and Optical Technology Letters</i> , <b>2018</b> , 60, 2148-2153	1.2	1
13	Broadband and high gain multiband patch antenna designs using corrugated split ring resonators <b>2017</b> ,		1
12	Elliptic low pass filter design using DGS slot for microstrip lines <b>2013</b> ,		1
11	Wideband Miniaturized Patch Antenna Design and Comparative Analysis. <i>Communications in Computer and Information Science</i> , <b>2011</b> , 111-116	0.3	1
10	E-shaped patch antenna analysis for multiple applications <b>2011</b> ,		1
9	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> , <b>2022</b> , 54, 1	2.4	1
8	Numerical investigation of tunable multistacked metamaterial-based graphene grating. <i>Microwave and Optical Technology Letters</i> , <b>2021</b> , 63, 1106-1111	1.2	1
7	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> , <b>2022</b> , 77, 1168-1181	3.5	1
6	Ultra-broadband and polarization-insensitive metasurface absorber with behavior prediction using machine learning. <i>AEJ - Alexandria Engineering Journal</i> , <b>2022</b> , 61, 10379-10393	6.1	1
5	Graphene-Based Tunable Broadband Polarizer for Infrared Frequency. <i>Brazilian Journal of Physics</i> , <b>2022</b> , 52, 1	1.2	0
4	Multi-layered graphene silica-metasurface based infrared polarizer structure. <i>Optical and Quantum Electronics</i> , <b>2022</b> , 54, 1	2.4	0

3	Exploration of multi-metallic thin layer/MgF <sub>2</sub> in side-polished optical fiber as long-range surface plasmons (LRSPs) alcohol sensor. <i>Optical and Quantum Electronics</i> , <b>2022</b> , 54, 1	2.4	○
2	Properties of the defect mode of a ternary photonic crystal having an n-doped semiconductor as a defect layer: TE case. <i>Materials Science in Semiconductor Processing</i> , <b>2022</b> , 144, 106626	4.3	○
1	SVM-based Analysis for Predicting Success Rate of Interest Packets in Information Centric Networks. <i>Applied Artificial Intelligence</i> , 1-22	2.3	○