Research Publications:

National and International Journals:

1. Observation of band gap enhancement and Green-Yellow Emission of Thermally Stable MXene Nanosheets, Sheetal Sharma, Manoj Kumar Gupta, Vinod Kumar Singh, ***Optical Materials***, 155(23) 115780, June 2024.
2. Optical fiber SERS sensors: Unveiling advances, challenges, and applications in a miniaturized technology, R. K. Gangwar, A. K. Pathak, F. Chiavioli, M. H. Abu Bakar, M. A. Mehdi and V. K. Singh, **Coordination Chemistry Review**, vol. 510, pp. 215861, April 2024
3. Reflection based silicon incorporated silver coated fiber optic SPR sensor for refractive index and temperature measurement, Papiya Dhara, V. K Singh, A. Kumar, M. Olivero and G. Perrone, ***Microsystem Technologies-Micro and Nanosystems Information storage and Processing systems***, 30, 913-922, April 24
4. TiO_2 coated optical fiber SPR sensor for alcohol sensing application, Maya Chauhan and Vinod Kumar Singh, ***Journal of Optics*** 52 (4) pp. 2285-95, December 2023.
5. Growth of well arrayed ZnO nanorods over no-core fiber for the measurement of glucose solution concentration, Maya Chauhan and Vinod Kumar Singh, ***Journal of Material Science: Material in Electronics***, Vol. 34, pp. 5, February 2023.
6. Tapered MMF sensor fabrication using SnO_2-NPs for alcohol sensing application, Maya Chauhan and Vinod Kumar Singh, ***Optical Fiber Technology***, Vol. 76, pp. 103167, January 2023.
7. Gold nanowire assisted highly sensitive hollow fiber temperature sensor, Maya Chauhan and Vinod Kumar Singh, ***Photonics and Nanostructures – Fundamentals and Applications***, Vol. 52, pp. 101078, September 2022.
8. Hydrothermally grown ZnO nanorods based optical fiber sensor for salinity detection, Maya Chauhan and Vinod Kumar Singh, ***Measurement***, Vol. 203, pp. 111913, September 2022.
9. Highly sensitive PCF based plasmonic sensor for hemoglobin concentration detection, Sugandha Das and Vinod Kumar Singh, ***Photonics and Nanostructures - Fundamentals and Applications***, Vol. 51, pp. 101040, August 2022
10. ZnO nanostructures coated no-core fiber refractive index sensors, Maya Chauhan and Vinod Kumar Singh, ***Materials Science in Semiconductor Processing*** , Vol.47, 106757, 15 August 2022
11. Sensitive enhancement of Ta_2O_5 coated PCF based plasmonic sensor for glucose sensing application, Sugandha Das and Vinod Kumar Singh, ***IEEE Photonics Technology letters***, Vol.34, No. 13 pp. 691-694, July 2022
12. "PDMS coated fiber optic sensor for efficient detection of fuel adulteration", Maya Chauhan, Tulika Khanikar, Vinod Kumar Singh, **Applied Physics B: Laser and Optics,** Vol. 128, pp. 89 April, 2022
13. "A review on infiltrated or liquid core fiber optic SPR sensors" Tulika Khanikar, M. De and Vinod Kumar Singh, **Photonics and Nanostructures - Fundamentals and Applications**, Vol. 46, pp. 10945, July, 2021
14. "Fiber Optic Plasmonic Sensors Based on Theoretical Analysis: a review", Tulika Khanikar, Moutusi De and Vinod Kumar Singh, accepted in ***Optical and Quantum Electronics***, June, 2021
15. "V groove fiber plasmonic sensor with facile resonance tenability", Tulika Khanikar and Vinod Kumar Singh, accepted in *Optik* , vol., no., pp., June 2021
16. "Review on recent experimental SPR/LSPR based fiber optic analyte sensors", Maya Chauhan and Vinod Kumar Singh, ***Optical Fiber Technology***, Vol. 64 pp. 102580, July, 2021

17. "The role of Ta_2O_5 thin film on a plasmonic refractive index sensor based on photonic crystal fiber", Sugandha Das and Vinod Kumar Singh, ***Photonics and Nanostructures - Fundamentals and Applications***, Vol.44, 100904, May 2021
18. "Wide range refractive index sensor using a birefringent optical fiber", Moutusi De and Vinod Kumar Singh, *Optical and Quantum Electronics*, vol. 53, pp. 198, April, 2021
19. "A Highly Sensitive SPR Refractive Index Sensor Based on Microfluidic Channel Assisted with Graphene-Ag Composite Nanowire", A. K. Pathak, C. Viphavakit, B. M. A. Rahman, and V. K. Singh, ***IEEE Photonics Journal***, Vol. 2, no. 13, pp. 1-8, March, 2021
20. "Design and analysis of a tunable refractive index sensor by using a Ta_2O_5 coated photonic crystal fiber", Sugandha Das and Vinod Kumar Singh, ***Journal of Nanophotonics***, pp. 016006, Vol. 15 no. 1, January, 2021
21. "Numerical analysis of LSPR based fiber sensor for low refractive index detection", P. K. Singh, Vinod Kumar Singh and S. K. Chaulya, *Optik,* 224, pp.165704, December, 2020
22. "Analysis of a single solid core flat fiber plasmonic refractive index sensor" Moutusi De, C. Markides, Vinod Kumar Singh, C. Thermistos and B M A Rahman, ***Plasmonics***, vol. 15, no. 5 pp. 1429-37, October, 2020
23. "Investigation of rectangular solid-core photonic crystal fiber as temperature sensor", Papiya Dhara and Vinod Kumar Singh, ***Microsystem Technologies***, doi 10.1007/s00542-020-04927-1, 16 June 2020
24. "Fiber optic pH sensor using TiO_2-SiO_2 composite layer with temperature cross-sensitivity feature", Maya Chauhan and Vinod Kumar Singh, *Optik,* vol. 212, pp. 164709, June, 2020
25. "Theoretical assessment of D-shaped optical fiber chemical sensor associated with nanoscale silver strip operating in near infra-red region" A. K. Pathak, and Vinod Kumar Singh, *Optical and Quantum Electronics*, vol. 52, no.4, article 199, April, 2020
26. "SPR Based Optical Fiber Refractive Index Sensor Using Silver Nanowire Assisted CSMFC" A. K. Pathak and Vinod Kumar Singh, accepted in ***IEEE Photonics Technology Letters***, vol. 32 , no.8, pp. 465-468, 2020
27. "Analysis of highly sensitive plasmonic refractive index sensor", Moutusi De and Vinod Kumar Singh, ***Applied Optics***, vol. 59, no. 2, pp. 380-388, 2020
28. "Analysis of a highly sensitive side polished hollow fiber plasomonic sensor and its application as a magnetometer", Tulika Khanikar and Vinod Kumar Singh, ***Applied Optics***, vol. 59, no. 1, pp. 171-179, 2020.
29. "Refractive index sensor based on selectively liquid infiltrated birefringent photonic crystal fiber" , Sugandha Das and Vinod Kumar Singh,' *Optik,* vol. 201, pp 163489, 2020
30. "Prospects of photonics crystal fiber for analyte sensing applications: An overview", M. De, T. K. Gangopadhyay and Vinod Kumar Singh, ***Measurement science and technology***, vol. 31, pp. 042001, 2020.
31. "Investigation of a SPR based refractive index sensor using single mode fiber with large D shaped microfluidic channel" A. K. Pathak, Vinod Kumar Singh, S. Ghosh, and B. M. A. Rahman, ***OSA Continuum***, vol.2, no. 11, pp. 3008-3018, 2019 .
32. "Sensitivity enhancement of a concave shaped optical fiber refractive index sensor covered with multiple Au nanowires", A. K. Pathak, B. M. A. Rahman Vinod Kumar Singh and S Kumari, ***Sensors***, vol. 19, no. 19, pp. 4210, 2019.

33. "Single mode dispersion shifted photonic crystal fiber with liquid core for optofluidic applications" Sugandha Das, Moutusi De and Vinod Kumar Singh,' ***Optical Fiber Technology***, Vol. 53, 201012, December, 2019.
34. "Gold grating assisted SPR based D-shaped single mode fiber for detection of liquid refractive index" Tulika Khanikar and Vinod Kumar Singh,' *Optical and Quantum Electronics*, vol.51, no. 9, pp. 296, September, 2019
35. Multi-purpose photonic crystal fiber having advanced optical properties and long sensing_range, Moutusi De and Vinod Kumar Singh, ***Photonics and Nanostructures- Fundamentals and Applications***, vol. 36, pp. 100722, September, 2019

36. "Metal nanowire assisted hollow core fiber sensor for an efficient detection of small refractive index change of measurand liquid", A. K. Pathak, A. Ghose, R. K. Gangwar, B. M. A. Rahman and Vinod Kumar Singh, ***Plasmonics***, June 2019 https://doi.org/10.1007/s11468-019-00969-y
37. "Single Channel Photonic Crystal Fiber Based High Sensitive Petrol Adulteration Detection Sensor" Moutusi De and Vinod Kumar Singh, *Optik*, vol. 183, pp 539-546, 2019
38. "Fiber optic refractive index sensor with high index refractive index overlay" Tulika Khanikar and Vinod Kumar Singh,' *Laser Physics*, vol. 29, no.4, pp 045103, 2019
39. "PANI-PVA composite film coated optical fiber probe as a stable and highly sensitive pH sensor" Tulika Khanikar and Vinod Kumar Singh,' ***Optical Materials***, vol.88, pp244–251, Feb, 2019
40. "Prospects of Photonic Crystal Fiber as Physical Sensor: An Overview" Moutusi De, Tarun Kumar Gangopadhyay and Vinod Kumar Singh, ***Sensors***, vol. 19, no. 3, pp. 464, January, 2019
41. " Broad range and highly sensitive optical pH sensor based on Hierarchical ZnO microflowers over tapered silica fiber" Akhilesk Kumar Pathak, Dhirendra K. Chaudhary and Vinod Kumar Singh, ***Sensor and Actuator A***, vol. 280, pp. 399-405, Sept, 2018
42. "Investigations on sensing properties of tapered photonic crystal fiber refractive index sensor" A. K. Pathak and Vinod Kumar Singh, *Indian Journal of Pure and Applied Physics*, Vol. 56, No. 5, pp. 373-378, 2018
43. "Magnetic fluid infiltrated dual core photonic crystal fiber based highly sensitive magnetic field sensor" Moutusi De and Vinod Kumar Singh, ***Optics and Laser Technology***, vol. 106, pp. 61-68, October, 2018.
44. "Reflectance-based no core fiber sensor with enhanced sensitivity for salinity detection" Tulika Khanikar, A. K. Pathak and Vinod Kumar Singh, *Optik- International Journal of Light and Electron Optics*, vol. 159, pp. 1-8, April, 2018
45. "Experimental and Theoretical Analysis of Connector Offset Optical Fiber Refractive Index Sensor" Vanita Bhardwaj, K Kishor and Vinod Kumar Singh, ***Plasmonics,*** vol. 12 no. 6, pp 1999-2004, December, 2017
46. "A Novel use of Etched Multi-Mode Fiber as Magnetic field sensor", Vanita Bhardwaj and Vinod Kumar Singh, *IET Optoelectronics*,' vol. 11, No. 6, pp. 248-252, December, 2017.
47. "A wide range and highly sensitive optical fiber pH sensor using polyacrylamide hydrogel" Akhilesh Kumar Pathak and Vinod Kumar Singh,' ***Optical Fiber Technology***, vol. 39, pp 43-48, December 2017.
48. "Fabrication and Characterization of Down-tapered Optical Fiber pH Sensor Using Sol-gel Method", Akhilesh Kumar Pathak and Vinod Kumar Singh, *Optik- International Journal of Light and Electron Optics*, vol. 149, pp. 288-294, , November, 2017.
49. "A robust optical fiber sensor for the detection of petrol adultration", Akhilesh Kumar Pathak, Rahul Kumar Gangwar, Payal Priyadarshini and Vinod Kumar Singh, *Optik- International Journal of Light and Electron Optics*, vol.149, pp. 43-48, November, 2017.

50. “Highly sensitive Surface Plasmon Resonance based D-shaped Photonic Crystal Fiber Refractive Index Sensor” Rahul K. Gangwar and Vinod Kumar Singh, ***Plasmonics,*** vol. 12, no. 5, pp. 1367-1373, October, 2017.
51. “Effect of ethanol infiltration on zero dispersion wavelength of solid-core Photonic Crystal Fiber” Rahul Kumar Gangwar, Akhilesh Kumar Pathak, Payal Priyadarshini and Vinod Kumar Singh, *Optik-International Journal of Light and Electron Optics*, vol. 147, pp. 197-203, October, 2017.
52. “Designing of Highly Birefringence, Dispersion Shifted Decagonal Photonic Crystal Fiber with Low Confinement Loss” Moutusi De, Rahul K. Gangwar and Vinod Kumar Singh, ***Photonics and Nanostructures- Fundamentals and Applications***, vol. 26, pp. 15-23, June, 2017.
53. “Optical fiber cone tapered tip sensor for refractive index measurement” Vanita Bhardwaj and Vinod Kumar Singh, *Indian Journal of Pure and Applied Physics*, vol. 55, No. 5, pp. 345-348, May, 2017.
54. “No-core fiber based highly sensitive optical fiber pH sensor” Vanita Bhardwaj, Akhilesh Kumar Pathak and Vinod Kumar Singh ***Journal of Biomedical Optics***, vol. 22, No. 5, pp. 057001, 5 May, 2017.
55. “Improved mesostructure by incorporating surfactant on thin film to develop an advanced optical fiber pH sensor with a temperature cross sensitivity feature” Papiya Dhara and Vinod Kumar Singh, *Laser Physics*, vol. 27, No. 3, pp. 035101, 2017.
56. “Fabrication and characterization of TiO_2 coated cone shaped nano-fiber pH sensor”, A. K. Pathak, V. Bhardwaj, R. K. Gangwar, M. De and Vinod Kumar Singh, *Optics Communications* 386, pp. 43-48 2017.
57. “Study of liquid sealed no-core fiber interferometer for sensing applications” Vanita Bhardwaj, and Vinod Kumar Singh, ***Sensor and Actuator A: Physical***, 254, 1 Feb. pp. 95-100, 2017.
58. “Silicone rubber-coated highly sensitive optical fiber sensor for temperature measurement” Vanita Bhardwaj, Rahul Kumar Gangwar and Vinod Kumar Singh, *Optical Engineering*, 55 (12) 126107, 2016.
59. “Study of highly birefringence dispersion shifted photonic crystal fiber with asymmetrical cladding” Rahul Kumar Gangwar and Vinod Kumar Singh, *Optik*- International Journal of Light and Electron Optics, vol. 124, No. 24, pp 11854-11859, 2016.
60. “Fabrication and characterization of cascaded tapered Mach Zender Interferometer for refractive index sensing” Vanita Bhardwaj and Vinod Kumar Singh, ***Sensor and Actuator A: Physical***, vol. 244, pp. 30-34, 2016.
61. “Reflectance based low cost disposable optical fiber SPR probe with enhanced bio-chemical sensitivity” Papiya Dhara, Vinod Kumar Singh, Massimo Olivero and Guido Perrone, *Optical Engineering*, vol. 55, No. 4, pp 046114, 2016.
62. "Magnetic field sensor based on selectively magnetic fluid infiltrated dual-core photonic crystal fiber," Rahul Kumar Gangwar, Vanita Bhardwaj and Vinod Kumar Singh, *Optical Engineering*, Vol 55, No. 2, pp 026111, 2016.
63. “Refractive index sensor based on selectively liquid infiltrated Dual core photonic crystal fibers” Rahul K. Gangwar and Vinod Kumar Singh, ***Photonics and Nanostructures- Fundamentals and Applications***, Vol 15, pp 46-52, 2015.
64. “Effect of MMF stub on the sensitivity of a photonic crystal fiber interferometer sensor at 1550 nm” P. Dhara and Vinod Kumar Singh, ***Optical Fiber Technology***, Vol. 21, pp 154-159, 2015.
65. “Designing of Endlessly Single Mode Polarization Maintaining Highly Birefringent Nonlinear Micro-structure Fiber at Telecommunication window by FV-FEM” R. K. Gangwar, S S Mishra and Vinod

Kumar Singh, *Optik*-International Journal of Light and Electron Optics, Vol. 125, no. 5, 1641-1645, 2014.

66. "Investigation of Phase Birefringence and Group Birefringence of Square size Photonic Crystal Fiber at wavelength 1.3μm", S S Mishra and Vinod Kumar Singh, *Optik*-International Journal of Light and Electron Optics, Vol. 124, no. 12, pp. 1294-1296, 2013.
67. "Highly Nonlinear Dual Core Photonic Crystal Fiber with low Confinement loss at 1.55μm wavelength" S S Mishra and Vinod K. Singh, *International Journal of Optics and Photonics* (IJOP), Vol. 5, no. 2, pp. 97-102, 2011
68. "Comparative Study of Fundamental Properties of Honey Comb Photonic Crystal Fiber at 1.55μm Wavelength", S. S. Mishra and Vinod Kumar Singh, *Journal of Microwaves, Optoelectronics and Electromagentic Applications* (JMOe), Vol. 10, no. 2, pp. 343-354, 2011.
69. "Designing of Endlessly Single-Mode Highly Polarization Maintaining Birefringent Photonic Crystal Fiber with Low Confinement Loss at Wavelength 1.55μm, Vinod K. Singh and S. S. Mishra,, *IEEE* 978-1-4244-6554-5/11, 2011.
70. "Study of non-linear properties of hollow core photonic crystal fiber" S S Mishra and Vinod K. Singh, *Optik*-International Journal of Light and Electron Optics, Vol. 122, no. 8, pp 687-690, 2011.
71. "Polarization Maintaining Highly Birefringent Small Mode Photonic Crystal Fiber at Telecommunication Window" S S Mishra and Vinod K. Singh, *Journal of Microwaves, Optoelectronics and Electromagentic Applications* (JMOe), Vol. 10, no. 1, pp. 33-41, 2011.
72. "Highly Birefringent Photonic Crystal Fiber with Low Confinement Loss at Wavelength 1.55μm" S S Mishra and Vinod K. Singh, *Optik*- International Journal of Light and Electron Optics, Vol. 122, no. 22, pp 1975-1977, 2011.
73. "Designing of Index-Guiding Photonic Crystal Fiber by Finite Element Method Simulation", S. S. Mishra and Vinod K. Singh, *International Journal of Advanced Networking and Applications*, vol. 2, no.3, 666-670, 2010.
74. "Endlessly Single-mode Highly Polarization Maintaining Birefringent PCF with Zero Dispersion at wavelength 1.55 μm", S. S. Mishra and Vinod K. Singh, *International Journal of Engineering Science and Technology*, vol. 2, no.9, pp. 4520-4525, 2010.
75. "Study of Fundamental Propagation Properties of Solid Core Holey Photonic Crystal Fiber in Telecommunication window" S. Mishra and Vinod K. Singh, *Chinese Journal of Physics*, vol. 48, no. 5, pp. 592-606, 2010.
76. "Study of Dispersion properties of Hollow-core Photonic Crystal Fiber by Finite Element Method" S Mishra and Vinod K. Singh, *Optoelectronics and Advanced Materials-Rapid Communications*, vol.3, no.9, pp. 874-878, 2009.
77. "Bonding parameter, Phase parameter and Ni K-Edge position studies of some Ni systems", Vinod Kumar Singh, *Indian Journal of Pure and Applied Physics*, New Delhi Vol. 44, pp. 20-24, January 2006.
78. "Correlation of nearest neighbour distance and bonding parameters of EXAFS of some Mn and Co systems" V K Singh, and A R Chetal, *Acta Physica Polonica A* vol 93 no. **3**, 33-38, 1998.
79. "Chemical shift of X-ray K-absorption edge studies of some nickel systems and its correlation with effective charge", V K Singh, P R Sarode and A R Chetal, *Acta Physica Polonica A* 6, 87, 1003-1008, 1995.
80. "Determination of Nearest Neighbour Distance of some nickel systems from XANES" V K Singh and A R Chetal, *X-ray spectrometry*, vol. 22 (2) 86-88, 1993.

National and International Conferences:

81. Micro-channeled single mode fiber plasmonic sensor with ITO-TiO2 bilayer, Tulika Khanikar, Akhilesh Kumar Pathak and Vinod Kumar Singh, Under review (Proceeding of IEEE Xpolre), Workshop WRAP-2019 held in IIT Guwahati, 13^{th}-14^{th} December, 2019
82. Effect of Silver and Gold on SPR Based D-shaped Photonic Crystal Fiber Refractive Index Sensor, Sugandha Das and Vinod Kumar Singh, Under review (Proceeding of IEEE Xpolre), Workshop WRAP-2019 held in IIT Guwahati, 13^{th}-14^{th} December, 2019
83. A side-polished macro bend fiber sensor for the efficient detection of petrol adulteration, Maya Chauhan, Akhilesh Kumar Pathak, Tulika Khanikar, and Vinod Kumar Singh, Under review (Proceeding of IEEE Xpolre), Workshop WRAP-2019 held in IIT Guwahati, 13^{th}-14^{th} December, 2019
84. Selectively ethanol infiltrated zero dispersion wavelength shifted solid core photonic crystal fiber, Sugandha Das and Vinod Kumar Singh, Proceeding of Springer, Conference ICOL-2019 held in IRDE Dehradun, 19^{th} -22^{th} October, 2019
85. Gelatin coated optical fiber probe as a pH sensor: An experimental analysis, TulikaKhanikar and Vinod Kumar Singh, Proceeding of Springer, Conference ICOL-2019 held in IRDE Dehradun, 19^{th} - 22^{th} October, 2019
86. A fiber optic refractive index sensor using a high index layer of TiO_2, Maya Chauhan and Vinod Kumar Singh, Proceeding of AIP, Conference ICC-2019 held in Govt. Engineering College, Bikaner, 14^{th} -15^{th} October, 2019

87. Proposal of a single core flat fiber as a sensor, Moutusi De, Christos Markides, Christos Themistos, Vinod Kumar Singh and B M A Rahman, Proceeding of Photonics 2018 held in IIT Delhi, 12-15 Dec, 2018
88. High sensitive magnetic field sensor based on rectangular lattice dual-core photonic crystal fiber, Moutusi De and Vinod Kumar Singh, Proceeding of Photonics 2018 held in IIT Delhi, 12-15 Dec, 2018
89. SPR based hollow fiber refractive index sensor using silver nanowire, Akhilesh Kumar Pathak and Vinod Kumar Singh, Proceeding of Photonics 2018 held in IIT Delhi, 12-15 Dec, 2018
90. Fiber Optic pH Sensor Using a High Index Layer and Sol Gel Entrapped Indicator, Tulika Khanikar and Vinod Kumar Singh, Proceeding of Photonics 2018 held in IIT Delhi, 12-15 Dec, 2018
91. Simple designing of highly birefringence hexagonal photonic crystal fiber with low confinement loss, Sugandha Das and Vinod Kumar Singh, Proceeding of Photonics 2018 held in IIT Delhi, 12-15 Dec, 2018
92. Tapered multi-mode optical fiber sensor to detect petrol adulteration, Akhilesh Kumar Singh and Vinod Kumar Singh, Proceeding of Optics and Photonics for energy and the environment, OSA conference, Singapore, 5-8 Nov, 2018 (**https://doi.org/10.1364/EE.2018.EM2A.1)**
93. U-bend optical fiber pH sensor using multiple sol-gel coating over TiO2, Akhilesh Kumar Pathak, Tulika Khanikar and Vinod Kumar Singh, Proceeding of IEEE conference ICMAP 2018 held in ECE Dept., IIT Dhanbad, 9-11 Feb, 2018
94. Highly birefringence decagonal Photonic Crystal Fiber with low confinement loss and small effective area, Moutusi De, Sugandha Das and Vinod Kumar Singh, Proceeding of IEEE conference ICMAP 2018 by ECE Dept., IIT Dhanbad, 9-11 Feb, 2018

95. Polymer clad silica fiber for refractive index sensing, Tulika Khanikar, Jyoti Sheoran and Vinod Kumar Singh, Proceeding of IEEE conference ICMAP 2018 held in ECE Dept., IIT Dhanbad, 9-11 Feb, 2018
96. Motion Detection and Tracking using Microwave sensor for eliminating illegal mine activities, Pritam Singh, S. K. Chaulya, Vinod Kumar Singh and Tanmoya Nemai Ghosh, Proceeding of IEEE conference ICMAP 2018 by ECE Dept., IIT Dhanbad, 9-11 Feb, 2018
97. Intensity modulated optical fiber pH sensor by incorporating surfactant on thin film to advance sensitivity, Papiya Dhara, Moutusi De, Vinod Kumar Singh, Proceedings of Photonics-2016, held at IIT Kanpur, 04-08 December, 2016
98. Dual-core photonic crystal fiber based magnetic field sensor, Rahul Kumar Gangwar, Vanita Bhardwaj, Vinod Kumar Singh, Proceedings of Photonics-2016, held at IIT Kanpur, 04-08 December, 2016
99. Hetro-core optical fiber sensor for concentration measurement, Akhilesh Kumar Pathak, Vanita Bhardwaj, Rahul Kumar Gangwar, Vinod Kumar Singh, Proceedings of Photonics-2016, held at IIT Kanpur, 04-08 December, 2016

100. Effect of magnetic field direction on the magnetic fluid refractive index, Vanita Bhardwaj, Akhilesh Kumar Pathak, Rahul Kumar Gangwar, Vinod Kumar Singh, Proceedings of Photonics-2016, held at IIT Kanpur, 04-08 December, 2016
101. Optical Fiber refractive index sensor, Vanita Bhardwaj, Rahul Kumar Gangwar, Vinod Kumar Singh, Proceedings of International Conference on Light and Light-based technologies, held at Tejpur University Tejpur, 26-28 November, 2016
102. Novel core-off set optical fiber sensor for concentration measurement, Akhilesh Kumar Pathak, Vanita Bhardwaj, Rahul Kumar Gangwar, Vinod Kumar Singh, Proceedings of International Conference on Light and Light-based technologies, held at Tejpur University Tejpur, 26-28 November, 2016
103. Highly non-linear Simple designed solid core photonic crystal fiber, Motusi De, Rahul K. Gangwar and Vinod K. Singh, Proceedings of 3rd International Conference on Opto-electronics and Applied Optics (Optronix 2016) held at University of Engineering and Management Kolkata, 18-20 August, 2016.
104. Triple point tapered PCF based refractive index sensor, Proceedings of International Conference on Recent trends in Mechanical, Material science, Manufacturing, Automobile, Aerospace Engineering & Applied Physics (AMAEAP-2016), held at JNU, New Delhi, 30 April, 2016 Published in Journal of Basic & Applied Engineering (ISSN 2350-0255) 2016.
105. Design and fabrication of disposable plasmonic fiber probes for biosensing, P. Dhara, C. Fallauto, Andrea Braglia, M. Olivero, V. A. Popescu, N. N. Puscas, A. Vallan, V. K. Singh, G. Perrone, SPIE Proceedings Optical Fibers and Sensors for Medical Diagnostics and Treatment Applications XV, 2015 (http://dx.doi.org/10.1117/12.2078157)
106. Transmission and reflection SPR disposable fibre probes for bio-chemical sensing, P. Dhara, Massimo Olivero, Alberto Vallan, Guido Perrone and V. K. Singh, International Conference on Bio Photonics (Bio Photonics), Issue 15554526 IEEE , 2015
107. SPR based fiber sensor to measure refractive index of glycerol and ethanol", A. K. Pathak, V. Bhardwaj, R. K. Gangwar and V. K. Singh, Proceeding International conference on Microwave and Photonics (ICMAP-2015), Indian School of Mines, Dhanbad,, 11-13, Dec, 2015 (DOI: 10.1109/ICMAP.2015.7408711)

108. “Uncladded sensing fiber for refractive index measurement”, Vanita Bhardwaj, Akhilesh K. Pathak, Rahul K. Gangwar and Vinod K. Singh, AIP Conf. Proc. 1728, 020022 (2016); http://dx.doi.org/10.1063/1.4946072 International conference on condensed matter and applied physics (ICC- 2015), Engineering college, Bikaner, 30-31,Oct, 2015

109. “SPR based cone tapered fiber optic chemical sensor for the detection of low water in ethanol”, Akhilesh K. Pathak, Vanita Bhardwaj, Rahul K. Gangwar and Vinod K. Singh, AIP Conf. Proc. 1728, 020017 (2016); http://dx.doi.org/10.1063/1.4946067 International conference on condensed matter and applied physics (ICC- 2015), Engineering college, Bikaner, 30-31,Oct, 2015

110. “Effect of ethanol on Dispersion Properties of Photonic Crystal Fiber” Rahul Kumar Gangwar, Vanita Bhardwaj and Vinod Kumar Singh, Proceeding of International Conference on Metamaterials, Photonic Crystals and Plasmonics (META-2015), at City College of New York, USA, August 4-7, 2015.

111. “Highly non-linear photonic crystal fiber with one nano-hole” Rahul Kumar Gangwar, Vanita Bhardwaj and Vinod Kumar Singh, Proceedings of Advanced Material and Radiation Physics (AMRP-2015) at SLIT, Longowal, Punjab, March 13-14, 2015 published in AIP Conf. Proc. **1675**, 030077 (2015); http://dx.doi.org/10.1063/1.4929293.

112. “Fiber Optic liquid refractive index sensor”, Vanita Bhardwaj, Rahul Kumar Gangwar and Vinod Kumar Singh, Proceedings of Advanced Material and Radiation Physics (AMRP-2015) at SLIT, Longowal, Punjab, March 13-14, 2015 published in AIP Conf. Proc. **1675**, 030071 (2015), http://dx.doi.org/10.1063/1.4929287.

113. “Michelson Interferometer based liquid refractive index sensor using micro-fiber”, Vanita Bhardwaj, Rahul Kumar Gangwar and Vinod Kumar Singh, Proceedings of International Conference on Optics and Photonics (ICOP-2015), at University of Calcutta, Feb. 20-22, 2015.

114. “Photonic Crystal Fiber Mach-Zehnder Interferometric Refractive Index Sensor”, P. Dhara, R. K. Gangwar and V. K. Singh, Proceedings of workshop on recent advances in photonics (WRAP-2013), at IIT Delhi, Dec. 17-18, 2013.

115. “Temperature Sensitivity of Photonic Crystal Fiber Mach-Zehnder Interferometer Based Sensor”, P. Dhara and V. K. Singh, Proceedings of International Conference on Microwave and Photonics (ICMAP- 2013) at ISM Dhanbad, Dec. 13-15, 2013.

116. “Refractive Index Sensing by Photonic Crystal Fiber Mach- Zehnder Interferometer at 1550nm”, Papiya Dhara and Vinod Kumar Singh, Proceedings of 3rd International conference on Advanced Nanomaterials and Nanotechnology (ICANN-2013), at IIT Guwahati, Dec. 1-3, 2013.

117. “Study of Fundamental Properties of Hollow-Core Photonic Crystal Fiber” Rahul Kumar Gangwar and Vinod Kumar Singh, Proceedings of 3rd International conference on Advanced Nanomaterials and Nanotechnology (ICANN-2013), at IIT Guwahati, Dec. 1-3, 2013.

118. “Investigation of Fundamental Properties of Hollow-Core Photonic Crystal Fiber using FEM”, Rahul Kumar Gangwar, Anupam Kumar and Vinod Kumar Singh, Proceedings of International conference on Structural and Physical Properties of Solids (SPPS-2013), at ISM Dhanbad, Nov. 18-20, 2013.

119. “A review article on all fiber modal Mach-Zender interferometer sensors, P Dhara and V K Singh, Proceedings of National Conference on Advances in Lasers and Spectroscopy (ALS-2012), at ISM Dhanbad, Nov. 1-3, 2012

120. “Designing of High Birefringence Hollow Core Photonic Crystal Fiber at 1.55μm Wavelength” S S Mishra and Vinod Kumar Singh, Proceeding of National Conference “FACIT 2011” at ISM Dhanbad, Nov. 3-4, 2011.
121. “Numerical Investigation of Phase Birefringence and Group Birefringence of Square size Photonic Crystal Fiber using FV-FEM” S S Mishra and Vinod K. Singh, Proceeding of International Conference on Light (OPTICS’11), National Institute of Technology Calicut, Kerala, 23-25 May, 2011.

122. “Designing of Endlessly Single-Mode Highly Polarization Maintaining Birefringent Photonic Crystal Fiber with Low Confinement Loss at Wavelength 1.55μm” Vinod K. Singh and S S Mishra, Proceeding of International Symposium on Photonics and Optoelectronics (SOPO 2011) Wuhan China, 16-18 May, 2011.
123. “Study of Birefringence and Nonlinear Property of Square Lattice Based Photonic Crystal Fiber” S. S. Mishra and Vinod K. Singh, Proceedings of National Seminar on Nanomaterials and Their Applications, ISM Dhanbad, 10-11 Feb., 2011
124. “Study of Fundamental Properties of Honey Comb Photonic Crystal Fiber at Telecommunication window” S Mishra and Vinod K. Singh, Proceedings of National Seminar on Photonics and Materials, ISM Dhanbad, 25-27 March. pp 12, 2010.
125. “Designing of Hollow core Photonic Crystal Fiber as gas sensor”, S.S. Mishra, Vinod K Singh and V Priye, Proceeding of Ninth International mines ventilation congress, New Delhi, 10-13 Nov. 2009.
126. “Non-lossy propagation of e.m. wave in Index-guided Photonic Crystal Fiber”, S. Mishra, Vinod K. Singh and V Priye, Proceeding of National Seminar on Recent Advances in Theoretical and Applied Seismology at Department of Applied Mathematics, ISM University Dhanbad, March 24-25, 2009.
127. “Analysis of Hollow-Core Photonic Crystal Fiber by Finite Element Method”, S. Mishra, Vinod K. Singh and A Basu, Proceeding of International Conference on Trend on Optics and Photonics at Department of Optics and Photonics, University of Calcutta, 1-4 March, 2009.
128. “Study of Photonic Crystal Fiber by using Finite Element Method”, S. Mishra and Vinod K. Singh, Proceeding of International Conference Photonics’08 at IIT Delhi 15-18, Dec. 2008.
129. “Single–mode property of Photonic Crystal Fiber analysis by Finite Element Method” S Mishra, Vinod K. Singh & V Priye, Proceeding of National conference at Department of E & I, I S M Dhanbad 13-15 Oct. 2008.
130. “Modeling of Photonic Crystal Fiber by Finite element method” S Mishra, V K Singh and V Priye, Proceeding of National seminar on Recent advances on material science at I S M, Dhanbad, Feb. 15-17, 2008.
131. “Propagation of light in Fiber other than total internal reflection” A Prasad and V K Singh, Proceeding of National seminar on Recent Advances on Material Science at I S M, Dhanbad, Feb. 15-17, 2008.
132. “A Coupled Mode Analysis of Propagation of Hybrid Modes in Multilayered Gyroscopic Waveguide at Optical frequency” V K Singh and V Priye, Proceeding of National Seminar on Recent Advances in the Theoretical and Applied Seismology at I S M Dhanbad, March 20-21, 2006.
133. “Guided wave optical modulator” V K Singh and V Priye, Proceedings of International conference (ICOL-2006) on Optics and Optoelectronics at Instruments Research & development Establishments Dehradun, Uttaranchal, India, Dec12-15, p. 70, 2005.

134. “Bright and Dark Solitons in Nonlinear Yattrium Iron Garnet Films-Simulation and Experimental Realisation”, V K Singh and V Priye, Proceedings of SAP seminar on recent advances in theoretical and applied seismology, I S M Dhanbad, Mar 3-4, 2005.

135. “EXAFS parameter studies of some Ni systems”, V K Singh and A R Chetal, Proceedings of National Conference on emerging areas on Applied Physics, I S M Dhanbad, Feb 21-23, 2004.

136. “X-ray studies of some Ni systems” Proceedings of National Seminar on X-ray, V K Singh and A R Chetal, Laser, Optico-accoustic and electrical studies of solids including Minerals and Coal, I S M Dhanbad, Mar 25-26, 1998.

As on 04.04.2025