## **Research Publications**

## **National and International Journals:**

- 1. "Fiber optic pH sensor using TiO2-SiO2composite layer with atemperature cross-sensitivity feature" Maya Chouhan and Vinod Kumar Singh, accepted in *OPTIK*, (2020) (in press)
- 2. "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, *accepted in Optical and Quantum Electronics*, vol. 52, no.4, pp.199, March, 2020
- 3. "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
- 4. "Analysis of highly sensitive plasmonic refractive index sensor", Moutusi De and Vinod Kumar Singh, *Applied Optics*, vol. 59, no. 2, pp. 380-388, 2020
- 5. "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.
- 6. "Refractive index sensor based on selectively liquid infiltrated birefringent photonic crystal fiber", Sugandha Das and Vinod Kumar Singh, "Optik, vol. 201, pp 163489, 2020
- 7. "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.
- 8. "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.
- 9. "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.

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- 12. 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
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- 14. "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
- 15. "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
- 16. "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
- 17. "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
- 18. "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
- 19. "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
- 20. "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.

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- 25. "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.
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- 59. 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<sup>th</sup>-14<sup>th</sup> December, 2019
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