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List of Publications

Publications Relevant to the Thesis

1. **Hemant Kumar**, Umang Ramani, Bipin K. Singh, and Praveen C. Pandey, Investigations on the highly sensitive metal-coated broad range D-shaped optical fiber refractive index sensor, *Plasmonics* **16(6)**, 1963-1971 (2021).
2. **Hemant Kumar**, Raj Kumar, Umang Ramani, Bipin K. Singh, and Praveen C. Pandey, Al-doped ZnO based long-range optical fiber sensor for efficient low refractive index detection, *Optical and Quantum Electronics* **55(7)**, 608 (2023).
3. **Hemant Kumar**, Umang Ramani, Raj Kumar, Bipin K. Singh, and Praveen C. Pandey, High refractive index sensing highly sensitive low loss and SPR sensor based on hollow-core D-shaped optical fiber. (*Under Review*).
4. **Hemant Kumar**, Umang Ramani, Raj Kumar Bipin K. Singh, and Praveen C. Pandey, Single gold nanowire-based optical fiber refractive index sensor. (*Communicated*).

Other Publications

1. Umang Ramani, **Hemant Kumar**, Bipin K. Singh, and Praveen C. Pandey, Study of highly sensitivity metal wires assisted photonic crystal fiber based refractive index sensor, *Optical and Quantum Electronics* **52**, 521 (2020).
2. **Hemant Kumar**, Umang Ramani, Bipin K. Singh, and Praveen C. Pandey, Design of surface plasmon resonance based both side polished photonic crystal fiber for highly efficient refractive index sensor, *Optik* **248**, 168062 (2021).
3. Umang Ramani, **Hemant Kumar**, Raj Kumar, Bipin K. Singh, and Praveen C. Pandey, Rectangular-Shape Cladding-Based Photonic Crystal Fiber Surface

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- Plasmon Resonance-Based Refractive Index Sensor, *Plasmonics* **18**, 921–929 (2023).
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 5. Raj Kumar, **Hemant Kumar**, Umang Ramani, Sanket Kumar, Bipin K. Singh, Prem Prakash Singh, Praveen C. Pandey, Wide-angle and polarization insensitivity metamaterial perfect absorber, (*Under Review*).

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