

CURRICULUM VITÆ

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Father's Name: Late Mohan Ram

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Date of birth: 17-04-1993 (Saturday)

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Educational Qualification:

<i>Academic Qualifications</i>	<i>Board/University</i>	<i>Passing Year</i>	<i>Percentage</i>	<i>Division</i>
Class X	ICSE	2009	75.4%	First
Class XII	ICSE	2011	80.0%	First
B.Sc.	Banaras Hindu University, Varanasi	2014	67.0%	First
M.Sc.	Banaras Hindu University, Varanasi	2016	72.9%	First
GATE 2018	IIT Guwahati	2018	-	-
GATE 2019	IIT Madras	2019	-	-
CSIR-NET	CSIR UGC-NET	2020	-	-
Ph.D.	Banaras Hindu University, Varanasi	2023	-	-

Ph.D. Thesis Title: “Studies On Electromagnetic Surface Waves In One Dimensional Photonic Crystals And Its Application As Sensors”

Research Interest: Photonic crystals, 2D materials, Surface modes.

Google Scholar link: <https://scholar.google.com/citations?user=9XQtrJgAAAAJ&hl=en>

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ALL RESEARCH PUBLICATIONS

1. **M. Kumar & S. Prasad**, “*Properties of mid-infrared Bloch surface waves at the interface of air and Y_2O_3 and B_4C layers based truncated one dimensional ternary photonic crystal*”, IEEE 7th Uttar Pradesh Section International Conference on Electrical, Electronics and Computer Engineering (UPCON, Prayagraj, India), 1-6, 2020. <https://doi.org/10.1109/UPCON50219.2020.9376574>
2. **M. Kumar & S. Prasad**, “*The properties of mid infrared surface modes at the interface of air and one dimensional ternary photonic crystal*”, Materials Today Communications, 29, 102889(1-7), 2021. <https://doi.org/10.1016/j.mtcomm.2021.102889>
3. **M. Kumar & S. Prasad**, “*Mid-infrared biosensor based on Bloch surface mode excitation in truncated one-dimensional ternary photonic crystal under Kretschmann configuration*”, Plasmonics, 16(3), 923–932, 2021. <https://doi.org/10.1007/s11468-020-01331-3>
4. **M. Kumar & S. Prasad**, “*Mid-infrared sensor based on resonance excitation of graphene plasmon polariton-coupled Bloch surface modes at the interface of anisotropically truncated one-dimensional ternary photonic crystal*”, Waves Random Complex Media, 34(4), 3192-3207, 2021. <https://doi.org/10.1080/17455030.2021.1973692>
5. **M. Kumar & S. Prasad**, “*High performance mid infrared temperature sensor based on resonance excitation of hybrid Tamm surface states*”, Optical Materials, 131, 112586(1-7), 2022. <https://doi.org/10.1016/j.optmat.2022.112586>
6. **M. Kumar & S. Prasad**, “*High-Resolution Temperature Sensor Based on Resonance Excitation of Tamm Plasmon Polaritons: Graphene Plasmon Polariton Hybrid Mode*”, Journal of Electronic Materials, 52(8), 5337-5344, 2023. <https://doi.org/10.1007/s11664-023-10494-8>
7. **M. Kumar & S. Prasad**, “*Properties of mid-infrared interface modes at the interface of two isotropic dielectric photonic crystals*”, Optical and Quantum Electronics, 55(5), 461(1-11), 2023. <https://doi.org/10.1007/s11082-023-04722-y>
8. Ramnarayan, R. Singh, P. Yadav, **M. Kumar & S. Prasad**, “*Numerical modelling of the surface plasmon modes of a circular cylindrical three-layer graphene waveguide*”, Journal of Computational Electronics, 24(1), 15(1-9), 2024. <https://doi.org/10.1007/s10825-024-02250-w>