

# VIKRAM SINGH BHANDARI



## CONTACT

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## LANGUAGES

English, Hindi

## WORK EXPERIENCE

- **2023: Junior Research Fellow (SeNSE):** IIT Delhi, New Delhi/India
- **2021-23: Master of Technology (Applied Optics):** IIT Delhi, New Delhi/India
- **20/04/2022-05/07/2022: Internship:** FOS Mumbai (Remote)
- **2017-19: Master of Science (Physics):** D.B.S. PG College Dehradun
- **2014-17: Bachelor of Science (Physics):** D.B.S. PG College Dehradun

## SUMMARY

Dedicated research scholar with expertise in optics. Committed to academic excellence and equipped with strong analytical, critical thinking, software skill, and communication skill.

## AREA OF RESEARCH WORK

**Field of interest:** Sub-micron lithography for optical applications, Statistical Optics.

**Research domain:** Design of nanostructures for optical applications, Stokes scintillation, Cross spectral density elements study in different medium.

## EDUCATION

- **2023- (Present) Doctor of Philosophy:** Indian Institute of Technology (IIT) Delhi, India  
**PhD thesis title:** Development of nanostructured optics using grayscale laser lithography
- **2021-23 Master of Technology:** Indian Institute of Technology (IIT) Delhi, India  
**MTech thesis title:** Stokes Scintillation calculation in oceanic turbulence
- **2017-19 Master of Science:** D.B.S. PG College Dehradun, India
- 2014-19 Bachelor of Science :** D.B.S. PG College Dehradun, India

## M.Tech Project:

### Major Project:

#### Title: Stokes Scintillation in Oceanic Turbulence

- ❖ Study of Stokes parameter in term of the correlation elements,
- ❖ Study of the Stokes Scintillation in turbulence medium,
- ❖ Calculation of the Stokes scintillation in Oceanic turbulence and atmospheric turbulence

### Minor Projects:

- ❖ **Zemax Mini Project:** Study and designing of the capsule endoscopy in Zemax software,
- ❖ Presentation on Glare and its disadvantage,
- ❖ Presentation on CCD (Charged Coupled Devices),
- ❖ Presentation on Ekert Protocol in quantum cryptography,
- ❖ Presentation on Femtosecond laser system for micro machining of the material,
- ❖ Presentation on Efficient, frequency-stable laser diode pumped Nd-YAG laser,

## SKILLS

- **Software Skill:** Matlab, Python, Wolfram Mathematica, Microsoft Office, Latex, MS Word, Power Point
- **Experimental Skill:** Integrating Sphere, Abbe refractometer, Michelson's interferometer, Mach-Zehnder interferometer, Spatial Filter
- **Optical System Design Software:** Zemax Optic Studio, Rsoft Photonics Design, Code V Opticla system design, Comsol Multiphysics