

## Post-Doctoral fellowship details

- 1) *Full name:* Vineet Bharti
- 2) *Ph.D. institution and year:* Institution: Indian Institute of Technology Roorkee  
Year: 2014
- 3) *Date of joining IISc:* 05th Feb. 2014
- 4) *Area(s) of research:* Atomic Physics, Quantum Optics
- 5) *Name of the post-doctoral fellowship:* DS Kothari post-doctoral fellowship
- 6) *Laboratory where currently working:* Atomic & Optical Physics Lab
- 7) *Department:* Physics
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- 9) *Topic of research:* Study of quantum optical phenomena and their applications in multi-level systems
- 10) *Research Publications in IISc:*
  1. “Polarization-rotation resonances with sub-natural widths using a control laser,” Sapam Ranjita Chanu, Kanhaiya Pandey, **Vineet Bharti**, Ajay Wasan and Vasant Natarajan, *Europhys. Lett.* **106**, 43001 (2014).
  2. “Study of a four-level system in vee+ladder configuration,” **Vineet Bharti** and Vasant Natarajan, *Opt. Commun.* **356**, 510 (2015).
  3. “Wavelength mismatch effect in electromagnetically induced absorption,” **Vineet Bharti**, Ajay Wasan and Vasant Natarajan, *Phys. Lett. A* **380**, 2390 (2016).
  4. “Role of dressed-state interference in electromagnetically induced transparency,” Sumanta Khan, **Vineet Bharti** and Vasant Natarajan, *Phys. Lett. A* **380**, 4100 (2016).
  5. “Sub- and super-luminal light propagation using a Rydberg state,” **Vineet Bharti** and Vasant Natarajan, *Opt. Commun.*, **392**, 180 (2017).
  6. “Coherent population trapping (CPT) versus Electromagnetically induced transparency (EIT),” Sumanta Khan, M. P. Kumar, **Vineet Bharti** and Vasant Natarajan, *Eur. Phys. J. D*, **71**, 38 (2017).
- 11) *Attach a jpeg image of your recent photo:* Attached in the mail
- 12) *A tweet about your post-doctoral experience in IISc:*

It is a great learning experience for me. I did my doctorate in theoretical Quantum Optics. Here, in the Atomic & Optical Physics Lab, I got an opportunity to work on the experiments related to Atomic Physics and Quantum Optics. The ongoing experimental experience has improved my theoretical insight as well. My mentor’s quest for perfection always encouraged me to perform well in my post-doctoral project.