


Brief Biodata

Name: Dr Parag Sharma

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|----------------------------------|--|---|
| Designation: | Sr Principal Scientist & Professor (AcSIR) |  |
| DP No. and Name: | 1.04, Optical Radiation Metrology | |
| DU No. and Name: | 1.0, Physico-Mechanical Metrology | |
| Email: | sharmap2@nplindia.res.in | |
| Date of Joining CSIR-NPL: | February 14, 2007 | |
| Phone (office) | +91-11-45608228 | |

Research Area/ Interest

LED Photometry, Spectroradiometry, Nonlinear Optics, Photonics, Quantum Optics

Educational Qualifications

(Please write latest qualification first)

| Degree | Subject | University/ Institute | Year |
|---------------|----------------|---------------------------------------|-------------|
| PhD | Physics | Dayalbagh Educational Institute, Agra | 2006 |
| MSc | Physics | Dayalbagh Educational Institute, Agra | 2002 |
| BSc | Phys, Chem | MJP Rohilkhand University, Bareilly | 2000 |

Academic / Research Experience

| Grade / Post | Institute | Duration | | Research Field |
|------------------------|--|-----------------|-----------|---|
| | | From | To | |
| Sr Principal Scientist | CSIR-National Physical Laboratory, New Delhi | 14.02.22 | Cont. | |
| Principal Scientist | CSIR-National Physical Laboratory, New Delhi | 14.02.17 | 13.02.22 | Photometry Radiometry Optics Photonics |
| Senior Scientist | CSIR-National Physical Laboratory, New Delhi | 14.02.14 | 13.02.17 | |
| Scientist | CSIR-National Physical Laboratory, New Delhi | 14.02.10 | 13.02.14 | |
| Scientist B | CSIR-National Physical Laboratory, New Delhi | 14.02.07 | 13.02.10 | |
| CSIR-SRF (NET) | Dayalbagh Educational Institute, Agra | 01.10.04 | 13.02.07 | Photonics Nonlinear Optics |
| CSIR-JRF (NET) | Dayalbagh Educational Institute, Agra | 23.09.02 | 30.09.04 | |

No. of Publications

| No. of Publications in SCI Journals | No. of Publications in non-SCI Journals | No. of Publications in Conference Proceedings | Books Chapters | Total |
|-------------------------------------|---|---|----------------|-------|
| 42 | 1 | 20 | 3 | 66 |

Selected Publications

- Vijeta, B Ray, S Saha, VK Jaiswal, **P Sharma***, Investigation on spectral profiles of white light generated by a smart tuneable LED source at different CCTs for optimized circadian performance, *Journal of Modern Optics*, 71, 571 (2024).
- S Gangwar, VK Jaiswal, R Mehrotra, S Saha, **P Sharma**, Propagation of perfect vortex beam beyond the focal depth, *Applied Physics Letters* 124, 154101 (2024).
- RP Kapri, PK Dubey, **P Sharma***, Development of photon counting technique to operate from discrete photons to continuous regime using DAQ card in LabVIEW platform, *Optics and Laser Technology* 158, 108807 (2023).
- R Dwivedi, **P Sharma***, VK Jaiswal and R Mehrotra, Elliptically squeezed axicon phase for detecting topological charge of vortex beam, *Optics Communications* 485, 0126710 (2021).
- K Gambhir, **P Sharma***, C Sharma, M Kumar and R Mehrotra, Morphology induced plasmonic-excitonic interaction revealed by pump-probe spectroscopy, *Optics and Laser Technology* 119, 105674 (2019).

Technology Developed

- N Singh, Rajesh, VK Jaiswal, **P Sharma**, G Sumana, A Krishna, SR Krishnan, A Purohit, S Rathore and DK Aswal, UVC Disinfection Casket, May 20, 2020.
- N Singh, Rajesh, VK Jaiswal, **P Sharma**, SR Radhakrishnan, G Sumana, DK Shukla, SG Aggarwal, K Singh, SK Jaiswal and DK Aswal, UVC based air microbial disinfection unit, March 3, 2021.

Current Activities

(Not more than 100 words)

Creation of apex level testing and calibration facilities for LED and LED based lighting as per international/national standards. Study of visual and nonvisual effects including photobiological/circadian effects of artificial lighting systems. R&D in the area of optical vortex beam, optical phase singularities and quantum radiometry.

Honour(s)/Award(s)/ Fellowship(s)

- Dr OPS Sengar Memorial **Young Scientist Award**, by Nano and Molecular Society, December, 2015.
- ‘**Best Thesis Award**’ at *Eighth International Conference on Optoelectronics, Fiber Optics and Photonics*, Photonics 2006, Hyderabad, India, Dec. 13–16, 2006.
- ‘**DST Award**’ for participation in the Meeting of Nobel Laureates and Students in Physics in Lindau (Germany), June 27-July 2, 2004
- Indian Science Congress Association-**Young Scientist Award** in Physical Sciences at the 91st Indian Science Congress, 2004.

Contributions to AcSIR

- **Professor** in the Faculty of Physical Science
- **Course coordinator:** Advanced Measurement Techniques & Metrology
- **Faculty** in the Courses: Quantum Optics & Advanced Solid State Optical devices; Basic Metrology; Optical Radiation Metrology.
- PhD Guided: 03 as Guide, and 01 as Co-guide
- PhD Guiding: 02 as Guide, and 01 as Co-guide

Membership of Professional Societies/ Institutions

- Life Member (LM-898), Metrology Society of India (MSI)
- Life Member (L-11614), Indian Science Congress Association (ISCA)
- Life Member & Fellow (L-492), The Optical Society of India (OSI)
- Life Member (LM-722), Indian Laser Association (ILA)
- Life Member, Nano and Molecular Society of India (NMS)

Any other Information

(Not more than 100 words)

- Member, Bureau of Indian Standards (BIS), Lamp and Related Equipment Sectional Committee, ETD 23, and Illumination Engineering and Luminaires Sectional Committee, ETD 49
- Member, Review Committee, BIS, National Lighting Code Drafting
- Member, Panel for formulation of a BIS safety standard on UV-C products being used as disinfectant to kill bacteria/viruses
- Technical Accessor (Optics), National Accreditation Board for Testing and Calibration Laboratories, India