

Curriculum Vitae

Dr. Pankaj Sharma

Assistant Professor

Electronics & Communication Engineering

Indian Institute of Information Technology Pune

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Education

- **Doctor of Philosophy (Ph.D.)** in Electrical Engineering (CGPA **9.6/10**)
Indian Institute of Technology (IIT) Indore, India. (Jan. 2014 - May 2018)
Dissertation: Doped ZnO Thin Films: Fabrication, Characterizations and Performance
Analysis as Ultraviolet Photodetectors
- **Master of Technology (M.Tech.)** in VLSI Design (Marks **83.3%**)
Centre for Development of Advanced Computing, Noida, India (Aug. 2011 – May 2013)
- **Bachelor of Engineering (B.E.)** in Electronics & Communication (Marks **75.3%**)
Maharshi Dayanand University, Rohtak, India. (Jul. 2003 – Aug. 2007)

Research Interests

- Nanotechnology, Nanoelectronics, Photovoltaics, Photodetectors, Sensors.
- Design and growth of semiconductor nanostructures for optoelectronic devices.
- Fabrication and characterization of II-VI and III-V semiconductor devices.

Research Experience

- Experimental hands-on experience on following deposition and characterization techniques
 - Dual Ion Beam Sputter Deposition System (DIBSD), Rapid Thermal Annealing Furnace system (RTA), Four Probe Hall measurements, X-Ray Diffraction measurements (XRD).
 - Incident Photon Conversion Efficiency measurement (IPCE), Variable Angle Spectroscopic Ellipsometry measurements (VASE).
 - X-ray Photoelectron Spectroscopy measurements (XPS), Photoluminescence measurements (PL) Field Emission Scanning Electron Microscope measurements (FE-SEM).

Previous Experience

- **Assistant Professor** at **National Institute of Technology Delhi (NITD)**, from Jul. 2017 – May 2018.
- **Junior research fellow (JRF)** at **Centre for Development of Advanced Computing (CDAC)**, Noida from May 2013 – Jan 2014.
- **Software Engineer** at **Infosys Technologies Ltd.** Bangalore, from Oct. 2007 – May 2010.

Awards and fellowships

- Young Researcher Award at 3rd International Conference on Smart Materials and Structures, Orlando, Florida, USA, March 20-22, 2017.
- SERB(DST), Govt. of India and CSIR, Govt. of India, International travel grant to attend International Conference at Berlin, Germany and Orlando, Florida, USA, respectively.

- MHRD, Govt. of India, teaching assistance fellowship to pursue Ph.D., Jan. 2014 –Jul. 2017.
- Best managed project award at Infosys Trivandrum development center for the period Jul. 2009 – Dec. 2009.
- Indira Gandhi Award for securing 3rd position in Delhi state high school examinations conducted by Central Board of Secondary Education, Delhi, 2001.
- NCC “C” certificate (Army wing).

Administrative Responsibilities

- Faculty In-Charge, (Academic Affairs) IIIT Pune, Aug. 2018-till date.
- Coordinator, National Resource Center (NRC) IIIT Pune, Aug. 2018-till date.
- Member, Examination Cell, IIIT Pune, Aug. 2018-till.
- Member, Departmental Undergraduate Committee, NIT Delhi Aug. 2017-May 2018.

Courses Undertaken

- **UG:** Semiconductor Devices & Circuits, Networks Analysis & Synthesis, Basics of VLSI.
- **PG:** CMOS VLSI Design, Fabrication & Characterization of Semiconductor Devices

List of Publications

- Book Chapter: **01**
- Peer reviewed Journals (*SCI*): **15**
- International Conferences: **09**

Selected Publications

1. **Pankaj Sharma** and Shaibal Mukherjee, *Recent advances in ZnO based Ultraviolet Photodetectors*, [Reference Module in Materials Science and Materials Engineering](#), Oxford: Elsevier; 2018. pp. 1-12, ISBN: 978-0-12-803581-8.
2. **Pankaj Sharma**, Ritesh Bhardwaj, Amitesh Kumar, Shaibal Mukherjee, *Trap Assisted Charge Multiplication Enhanced Photoresponse of Li-P codoped p-ZnO/n-Si Heterojunction Ultraviolet Photodetectors*, [Journal of Physics D: Applied Physics](#) **51**, 015103 (2018). (**I.F. 2.58**)
3. **Pankaj Sharma**, Ritesh Bhardwaj, Rohit Singh, Shailendra Kumar, and Shaibal Mukherjee, *Investigation of formation mechanism of Li-P dual-acceptor doped p-type ZnO*, [Applied Physics Letters](#) **111**, 091604 (2017). (**I.F. 3.41**)
4. **Pankaj Sharma**, Aaryashree, Vivek Garg and Shaibal Mukherjee, *Optoelectronic properties of phosphorus doped p-type ZnO films grown by dual ion beam sputtering*, [Journal of Applied Physics](#) **121**, 225306 (2017). (**I.F. 2.13**)
5. **Pankaj Sharma**, Rohit Singh, Vishnu Awasthi, Sushil K. Pandey, and Shaibal Mukherjee, *Detection of a high photoresponse at zero bias from a highly conducting ZnO: Ga based UV photodetector*, [RSC Advances](#), **5**, 62603 (2015). (**I.F. 3.84**)
6. Aaryashree, **Pankaj Sharma**, Biswajit Mandal, Ankan Biswas, Manoj Manna, Sayan Maiti, Apurba K. Das, and Shaibal Mukherjee, *Synergetic accrual of lamellar nano-hybrids for band selective photodetection*, [Journal of Physical Chemistry: C](#) **121**, 14037–14044 (2017). (**I.F. 4.53**)
7. Ritesh Bhardwaj, **Pankaj Sharma**, Rohit Singh and Shaibal Mukherjee, *Sb- doped p-MgZnO/n-Si heterojunction UV photodetector fabricated by dual ion beam sputtering*, [IEEE Photonics Technology Letters](#), **29**, 1215 (2017). (**I.F. 2.37**)