

## CURRICULUM VITAE

### Bishnu Kumar Pandey

(Ph.D. Research Scholar)

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### Current Position

Ph.D. Research Scholar under Senior Research Fellowship scheme, Council of scientific and industrial research (CSIR), India. The title of my Ph.D. thesis is “**Synthesis of Magnetic Nanomaterial and Applications**” and to submit very soon (august first week).

### Academic Qualification

- **Post Graduation** (M.Sc.) in **Physics** 62%, University of Allahabad U.P., India (2009).
- **Graduation (B.Sc.)** **Phy, Math 55.65%**, University of Allahabad U.P., India (2007).
- Joined **Indian Air Force** as airman (Technical), in 2002-2003.
- **12<sup>th</sup>** (**Mathematics, Physics, Chemistry**), 59%, U. P. Board, Allahabad, India (2001).
- **10<sup>th</sup>** (**Mathematics, Physics, Chemistry, Biology**), 66%, U. P. Board, Allahabad, India (1999).

### Awards & Fellowship

- Awarded Senior Research Fellowship from Council of scientific and industrial research India (**CSIR-SRF**), 2013.
- Qualified Graduate Aptitude Test in Engineering, Physics (**GATE-2011**).
- Qualified Combined Research Entrance Test (**CRET-2010**) University of Allahabad.

### Professional Affiliations

- Reviewer for journal of Hazardous materials.
- Material Research Society of India (Life time member).
- IEEE Magnetic Society Member (Annual member 2012).
- Physics society Allahabad University 2004-2014.

### Research Interest and Experience

- Magnetic nanomaterial synthesis characterization and Bio application.
- Diluted magnetic semiconductors and nano material for opto-electronic application.
- Nano material for Spintronics and solar cell application.
- Project fellow 10 September 2009 to 07 June 2010, Laser ablation of magnetic nanomaterials.
- D.Phil. Research Scholar 8 June 2010 till the date.
- Five years teaching experience in practical lab of under graduate (B.Sc.) students at Physics department, Allahabad University

### Career Objective

- Seeking Postdoc/Research position in field of Nanoscience/material science/magnetic nanomaterial/laser material processing and teaching to utilize my experiences which I learned till the date.

### Papers Published in SCI Journals

1. **B. K. Pandey**, A. K. Shahi, R. K. Swarnkar, R. Gopal, *Sci. of Adv. Mat.* **4**, 537–543, 2012.
2. A. K. Shahi, **B. K. Pandey**, R. K. Swarnkar, R. Gopal, *Applied Surface Science* **257** (2011) 9846–9851.
3. **B. K. Pandey**, A. K. Shahi, and R. Gopal, *Materials Focus* **2**, 221-226 (2013).
4. **B. K. Pandey**, A. K. Shahi, and R. Gopal, *Materials Focus* **2**, 303-308 (2013).
5. **B. K. Pandey**, A. K. Shahi, R. Gopal, *Applied Surface Science* **283** (2013) 430–437.
6. A. K. Shahi, **B. K. Pandey**, J. K. Pandey, A. K. Sinha, and R. Gopal, *Mater. Focus* **2**, 342-345 (2013).
7. **B. K. Pandey**, A. K. Shahi, R. Gopal, *Applied Surface Science* **289** (2014) 462–471
8. A. K. Shahi, **B. K. Pandey**, S. C. Singh and R Gopal, *Journal of Alloys and Compounds* **588**(2014) 440–448.
9. A. K. Shahi, **B. K. Pandey**, S. C. Singh and R Gopal, *Materials Letters* **116** (2014) 112–115.

### Papers Published in ISBN Proceedings

1. *CoO Nanoparticles by PLA in Aqueous Medium*". **B. K. Pandey**, R. K. Swarnkar, and R. Gopal, *NLS-19, RRCAT Indore*. Dec 1-4, 2010, ISBN 978-81-903321-2-5, pp- 59.(2010).
2. *Magnetic Colloids By Pulsed Laser Ablation*" **B. K. Pandey**, and R. Gopal , (ICMM-2010) Kolkata, India, *AIP Conf. Proc.* -- June 30, 2011. DOI:10.1063/1.3601781. (2010).
3. "*Study of magnetic colloids in different liquid media*", **B. K. Pandey**, R. Gopal, *RTMD-2011 Amity University, Noida* May 19-20 2011, ISBN 978-81-9209113-4-1. pp 31. (2011).
4. *Study of Surfactant Assisted Synthesis of Mn Nanoparticles by Pulse Laser Ablation* **B. K. Pandey**, A. K. Shahi, A. K. Sinha R.Gopal, Proceedings of *National Laser Symposium (NLS-21)*, BARC, Mumbai 6-9 Feb 2013

### Poster/ Paper Presented in Conference

1. *Magnetic Colloids By Pulsed Laser Ablation*" **B. K. Pandey**, and R. Gopal , (ICMM-2010) Kolkata, India
2. Synthesis of Cobalt nanoparticles by Pulse Laser Ablation, **B. K. Pandey**, R. Gopal I-ConQuEST, NPL, New Delhi , Dec 20-23, 2010.
3. Optical and Magnetic properties of as synthesized Manganese oxide nanoparticles By PLA, **B. K. Pandey**, A. K Shahi and R. Gopal, 2nd International Conference on Advanced Nanomaterials and Technology, ICANN-2011.
4. Study of Surfactant Assisted Synthesis of Mn Nanoparticles by Pulse Laser Ablation, **B. K. Pandey**, A. K Shahi and R. Gopal, DAE-BRNS 6th National Symposium on Pulsed Laser Deposition of Thin Films and Nanostructured Materials (PLD-2011).
5. Synthesis of MnO Nanoarchitectures by Facile Pulse Laser Ablation in Liquid Media, **B. K. Pandey**, A. K Shahi and R. Gopal, IEEE Magnetic summer school held at SRM University in Chennai on 22 -27 july 2012.
6. Synthesis of cobalt carbonyl by PLA, **B. K. Pandey**, A. K Shahi and R. Gopal, National conference on chemistry and life, CMP degree collage, Allahabad, November 2012.
7. Synthesis, Characterization and Bio-assay of cobalt/cobalt oxide Nanoparticles **B. K. Pandey**, A. K Shahi and R. Gopal, National conference on application of high pressure techniques and novel material in frontier of science 25-26 oct.2013 NCMP center University of Allahabad.
8. Synthesis and water oxidation property of cobalt oxide magnetic colloids synthesized by PLA, **B. K. Pandey**, A. K Shahi and R. Gopal, DAE-BRNS 7th National Symposium on Pulsed Laser Deposition of Thin Films and Nanostructured Materials (PLD-2013).
9. Optical and magnetic properties of Fe<sub>2</sub>O<sub>3</sub> nanoparticles synthesized by laser ablation/ fragmentation technique in different liquid media authored by **B. K. Pandey**, A. K. Shahi, and Ram Gopal" IUMRS-ICA IISc, Bangalore.

### Communicated paper

1. **B. K. Pandey**, N. Srivastava, A. K. Shahi, G. Kumar, R. Gopal, Synthesis, Characterization and DNA Damaging Properties of cobalt/cobalt oxide Nanoparticles in Root Meristems of *Sesbania Cannabina*, Mutation research.
2. **B. K. Pandey**, A. K. Shahi, and Ram Gopal. Journal of Colloid and interface science, Optical magnetic and thermal conductive property of Cobalt/Cobalt oxide ferrofluids.

### Instrument Handling Experience

- Nd: YAG lasers having fundamental, second and third harmonics, 1 J and 0.5J of fundamental energy.
- 5W Argon ion laser handling and recording Raman and PL.
- ACTON 0.5 M triple grating monochromator with PMT detector.
- ACTON 0.5 M triple grating monochromator with TE cooled ICCD detector.
- Perkin Elmer Lambda-35 UV-visible Spectrophotometer.
- ATR-FTIR Spectrometer.
- I-V measurement.
- Different types of diode lasers.
- GRAM-32 software, Origin, image J, Powder -X, etc .

**Attended school/ workshop and course module**

- Course module at IUAC New Delhi 3March 2014- 5 May 2014.
- School and Workshop on Physics of Cold Atoms, HRI Allahabad 10-16 Feb, 2014.
- IEEE Magnetic summer school held at SRM University in Chennai on 22 -27 July 2012.
- SERC School on Laser Physics & Technology, March 12 - 30, 2012, RRCAT Indore.
- National School cum Workshop on *MAGNETIC PHASE TRANSITIONS AND TRANSFORMATIONS* organized by Department of Physics, Jadavpur University, Kolkata & UGC-DAE, Kolkata Centre (August 03–09, 2011).
- 5<sup>th</sup> DST Advanced School on Nanoscience and Nanotechnology (Jan 17-23, 2011) Organized by I.I.Sc. And JNCSR Bangalore.
- Physics Education Research and Development of e-Learning Modules (24-25 Feb, 2010) Organized by department of physics, University of Allahabad.
- NWCPEM-2011 a National Workshop on Characterization and Properties of Exotic Materials (Jan10-12, 2011) organized by department of physics, University of Allahabad.

**References**

1. Prof. Ram Gopal,  
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2. Dr. R. K. Kotnala  
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