

# CURRICULAM VIATAE OF Dr. SATYENDRA SINGH

**Dr. SATYENDRA SINGH** Ph.D. (Physics)

**Assistant Professor**

Department of Physics, M.P. Government P.G. College, Hardoi

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**Residence:** 537 BHA/131 Bharat Nagar, Mohibullapur, Sitapur Road, Lucknow-226021

**Date and Place of Birth:** 10 December 1984, Lucknow

## ACADEMIC QUALIFICATIONS

**Ph.D.** (Physics) in 2013

Department of Physics,  
University of Lucknow,  
Lucknow, India

**M.Sc.** (Physics) in 2007

Department of Physics,  
University of Lucknow, Lucknow, India

**Percentage: 71.8%**

**B.Sc.** (Physics, Chemistry, Mathematics) in 2005

University of Lucknow, Lucknow, U.P., India

**Percentage: 67.2%**

## Professional Experience/Research Background/Fellowships

(1) CSIR- Junior Research Fellow	01/01/2009 to 31/12/2010
(2) CSIR- Senior Research Fellow	01/01/2011 to 31/12/2013
(3) UGC- Post Doctoral Fellow	01/01/2014 to 30/09/2015
(4) Assistant Professor: GDC, Gyanpur	01/10/2015 to 03/09/2017
(5) Assistant Professor: GDC, Hardoi	04/09/2017 to continued

## Topic of Ph. D. Thesis:

“Synthesis and Characterization of Nanostructured Ferrites and their Investigations as Liquefied Petroleum Gas (LPG) Sensor”: under the supervision of Prof. (Dr.) Bal Chandra Yadav, Head, Department of Physics, School of Physical & Decision Sciences, Babasaheb Bhimrao Ambedkar University, Lucknow-226025, U.P., India

## ➤ Academic Achievements:

- (1) **CSIR- JRF (NET)** qualified in 2008
- (2) GATE-2008: 92.25 Percentile

## ➤ Awards/ Honors:

- **Young Researcher Award in International Conference** (September 22-24, 2017) at Babasaheb Bhimrao Ambedkar University, Lucknow
- **ISCA Best Poster Presentation Award** in 102<sup>th</sup> **Indian Science Congress Association** (January 2-5, 2015) at University of Mumbai, **Mumbai**
- **Most Downloaded Paper Award-2012**, by Journal of Optics and Laser Technology, Elsevier, **Italy (International Award)**
- **News Coverage by Nature India** to recognize our work
- **Best Poster Presentation Award** in International Conference (July 14, 2014) at Babasaheb Bhimrao Ambedkar University, Lucknow

- **Best Oral Presentation Award** in National Conference (November 15-16, 2016) at Chandigarh University, Chandigarh
- **CSIR- JRF** and **SRF** awards by CSIR, India
- **Dr. D.S. Kothari Post Doctoral Fellowship** Award by U.G.C., India
- **International Travel Support** by D.S.T., U.G.C., C.S.I.R., and C.I.C.S.

❖ **ABROAD VISITS**

International Symposium on Intelligent Materials, Kiel, **Germany**, 09-12 June 2015

❖ **No. of M.Sc. Thesis/ Dissertation supervised: 06**

S. No.	Topic of M.Sc. Thesis/Dissertation	University Name	Session
1	Spinel Ferrites	Chhatrapati Shahu Ji Maharaj University, Kanpur (U.P.)	2019-20
2	Carbon Nanotubes: Properties and Applications	Chhatrapati Shahu Ji Maharaj University, Kanpur (U.P.)	2018-19
3	Nanomaterials Synthesis and Characterization	Chhatrapati Shahu Ji Maharaj University, Kanpur (U.P.)	2018-19
4	Digital Communication Systems	Chhatrapati Shahu Ji Maharaj University, Kanpur (U.P.)	2017-18
5	An Overview of Nanostructured Materials	Chhatrapati Shahu Ji Maharaj University, Kanpur (U.P.)	2017-18
6	Nanostructured Functional Materials	Chhatrapati Shahu Ji Maharaj University, Kanpur (U.P.)	2017-18

❖ **Member of Local Organizing Committees:**

1. Workshop on Current trend in material Science, K.N. Govt. P.G. College, Gyanpur, February 18-24, 2016
2. National Conference on Vistas of Scientific Approach for Welfare of Society, K.N. Govt. P.G. College, Gyanpur, March 30-31, 2016
3. National Conference on Energy, Environment and its impact on Society (NCEEIS-2017), K.N. Govt. P.G. College, Gyanpur, 19-20 January 2017
4. Webinar on New Education Policy- 2020, M.P. Govt. P.G. College, Hardoi, September 01, 2020
5. Orientation Program on COVID-19: Present and Past Scenario, M.P. Govt. P.G. College, Hardoi, May 27-29, 2020

❖ **Section Editor of Journals:**

- Nanoscience and Nanotechnology- Asia, Bentham Science (Section: Sensing applications of Functional materials)

❖ **Member, Editorial Board:**

- Current Nanomaterials, Bentham Science Publisher

### ❖ **Referee of Journals:**

- Materials Letters, Elsevier
- Current Applied Physics, Elsevier
- Journal of Materials Science: Materials in Electronics, Springer
- Journal of Alloy & Compounds, Elsevier
- Materials Chemistry and Physics, Elsevier
- Journal of Inorganic and Organometallic Polymers and Materials, Springer
- Materials Science in Semiconductor Processing, Elsevier
- RSC Advances, Royal Society of Chemistry
- Journal of Nanoscience and Nanotechnology, Hindawi
- Ceramics International, Elsevier
- Journal of Nanomaterials, Hindawi
- Current Chinese Sciences, Bentham Science
- PLoS ONE

### ➤ **Research/Teaching Experience:**

- **Eight Years Research/Teaching Experience** in the Field “Synthesis of Nanomaterials/Nanocomposites and their Application as LPG Sensor/Humidity Sensor/Opto-Electronic Humidity Sensor”
- Participant in Research Activities of **Indo-Russian Project (DST-RFBR)** “Multimetallic nanoparticles in polymer matrix as precursors of magnetic sensor materials” (2009-2012)
- Participant in Research Activities of **Indo-Russian Project (DST-RFBR)** “Synthesis and Characterization of Thin and Thick Film Opto-Electronic Humidity Sensor Based on Metal Oxide Nanocomposites” (2013-2016)

❖ **Field of Research:** Synthesis of Advanced Functional Nanomaterials/Nanocomposites, Characterizations of Nanomaterials, Thin Film/ Thick Film Sensors, LPG Sensors, Humidity Sensors.

### ❖ **Experimental Skills:**

- Synthesis of nanostructured functional materials e.g., copper ferrite, cobalt ferrite, iron antimonate, neodymium iron oxide, zinc ferrite, nickel ferrite, copper antimonate etc.
- Characterizations of functional materials using Scanning electron microscope, X-ray diffraction, energy dispersive X-ray analysis, UV-visible absorption analysis, Atomic force microscopy analysis, Transmission electron microscopy analysis, Fourier transform infrared spectroscopy etc.
- Analyses of LPG and humidity sensing properties using the pellet/thick film/thin film as sensing elements.

### **Objective of the research work:**

At room temperature the detection of LPG leakage will be more efficient. To the best of my knowledge most of the presently LPG sensors are operated above room temperature. The objective of our research work is “To design and fabricate a robust LPG sensor operating

at room temperature”. This is the pioneer work in India to couple the science/techniques of sensing with the Nanoscience/ Technology in the thrust area of nanosensors.

### **Significance of the Scientific Contribution:**

From our work done so far we infer that the nanocrystalline iron antimony oxide is an excellent material for LPG sensing application at room temperature and using this material a commercialized model of LPG sensor may be designed.

#### ➤ **Research Publications**

Papers Published in International Journals: **53**

**Total Impact Factor of the Published Papers: 177.184**

**Average Impact Factor: 3.34**

#### ➤ **Google Scholar Citation indices**

	<b>All</b>	<b>Since 2016</b>
<b><u>Citations</u></b>	<b>1673</b>	<b>1297</b>
<b><u>h-index</u></b>	<b>25</b>	<b>20</b>
<b><u>i10-index</u></b>	<b>41</b>	<b>36</b>

**Overall Research Score/API as per UGC Regulation-2018 = 1039.3**

**(Dr. SATYENDRA SINGH)**