

CURRICULUM VITAE

Dr. NEELAM SINGH

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➤ **TEACHING EXPERIENCE**

- **Nov 2022- Till Now--:** Assistant professor Hans Raj College, University of Delhi, India
- **Jan 2013- 22 Nov 2022--:** Assistant professor (Ad-hoc) Maitreyi College, University of Delhi, India
- **Jan 2012- May 2012** Assistant professor (Ad-hoc) Ramjas College, University of Delhi, India
- **July 2011 – Oct 2011** Hindu College, University of Delhi (Guest)

➤ **ACADEMIC QUALIFICATION**

- **2006 - 2011 --: Ph.D. in Physics**, Department of Physics and Astrophysics, University of Delhi.
- **Title of Thesis:** “Structural, optical and dielectric characterization of solution Grown organic/semiorganic single crystals”.
- **2002 - 2004 - M.Sc. (Physics)** Dr. B. R. Ambedkar University, Agra, Uttar Pradesh, India.
- **1998 - 2001 - B.Sc. (Physics, Maths, Chemistry)** Dr. B. R. Ambedkar University, Agra, Uttar Pradesh, India.

➤ **AWARD/HONOUR**

- Meritorious Research Fellowship from UGC in 2007 (15 Nov 2007-31 March 2010)
- CSIR Senior Research Fellowship (April 2010 - Dec2011)

➤ **COMPUTER KNOWLEDGE**

- Microsoft Word, Microsoft Excel, Power Point, Origin, Internet & Basic knowledge
- Scilab

➤ **SUMMER INTERNSHIP PROJECT COMPLETED**

Project	Title	No of Students	Status/Prize
Summer 2020	An approach to detect 'Covid-19' through Artificial Intelligence (AI)	2	Completed

Summer 2019	Ferrites based hydroelectrical cells for green energy production	2	Completed/ Third
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➤ **PUBLICATIONS:**

1. Alkali (Na, K) doped SnO₂: An investigation on the role of microstructure on electricity generation of oxide based ceramic hydroelectric cells, Parveen Kumar, Sumit Kumar, Arti, Adarsh Singh, **Neelam Singh**, Vivek Verma, **Inorganic Chemistry Communications** **146 (2022)** 110115
2. Highly efficient and sustainable MXene based heterostructure composites filled with ferrites and MWCNTs to mitigate the radiation interference in X-band frequency region, Sumit Kumar, Parveen Kumar, **Neelam Singh**, Manish K. Kansal, Ashwani Kumar, Vivek Verma, **Materials Science and Engineering B Volume** **282 (2022)** 115798
3. Nanocomposite based hydroelectric cells: Working principle and production of green electrical energy, Parveen Kumar, **Neelam Singh**, Pradumn Kumar, Vivek Verma, **Inorganic Chemistry Communications** Volume 141 **(2022)** 109515
4. A systematic study of structural, magnetic and electric properties of perovskite-spinel composites prepared by sol-gel technique, Jarnail S. Bangruwa , Balesh Kumar Vashisth, **Neelam Singh** , Nidhi Singh, Vivek Verma **Journal of Alloys and Compounds** **739 (2018)** 319-326
5. Anomalous ferroelectric and magnetic behavior in BPFO-NZFO multiferroic nano-composites, Jarnail S. Bangruwa , Balesh Kumar Vashisth, **Neelam Singh**, Vivek Verma, *Ceramics International* Volume 44, Issue 10 **(2018)** Pages 11737-11744
6. Structural, Magnetic Properties of Soft and Hard Ferrites and their EMI Shielding Application in X-Band Frequency Range, Vivek Verma, Jyoti Kapil, **Neelam Singh**, **International Journal of Engineering Research & Technology (IJERT)**, Vol. 3 Issue12, **(2014)**
7. Optical and dielectric studies of solution grown glycinium maleate single crystal **Neelam Singh**, B.K. Singh, M.K. Gupta and Binay Kumar, **Optics Communications**, 285, 659 **(2012)**
8. Structural, optical and dielectric studies of Glycinium trifluoroacetate single crystal **Neelam Singh** and Binay Kumar, **Physica B** 406, 2152 **(2011)**
9. Structural, dielectric, optical and ferroelectric property of urea succinic acid crystals grown in aqueous solution containing maleic acid, B.K. Singh, N. Sinha, **N. Singh**, K. Kumar, M.K. Gupta, Binay Kumar, **Journal of Physics and Chemistry of Solids**, 71,1774 **(2010)**
10. Structural, dielectric and magnetic properties of Pr substituted $\text{Bi}_{1-x}\text{Pr}_x\text{FeO}_3$ ($0 \leq x \leq 0.15$) multiferroic compounds, Neeraj Kumar, Neeraj Panwar, Bhasker Gahtori, **Neelam Singh**, H. Kishan, V.P.S. Awana, **Journal of Alloys and Compounds**, 501, L29 **(2010)**
11. Solution growth and comparative characterization of L-HFB single crystals, N. Sinha, Sahas, B. K. Singh, K. Kumar, **N. Singh**, M. K. Gupta, G. C. Budakoti, and B. Kumar, **Crystal Research Technology**, 44, 167 **(2009)**
12. Piezoelectric, dielectric, optical and electrical characterization of solution grown flower-like ZnO nanocrystal, M.K. Gupta, N. Sinha, B.K. Singh, **N. Singh**, K. Kumar, Binay Kumar, **Materials Letters**, 63, 1910 **(2009)**

13. Growth and characterization of new nonlinear optical thiourea L-alanine acetate single crystal
Neelam Singh, B.K. Singh, Nidhi Sinha, Binay Kumar, **Journal of Crystal Growth**, 310, 4487 (2008)

➤ CHAPTER IN A BOOK

1. Multiferroic Study of Pure BiFeO₃ Synthesized Using Various Complexing Agents by Sol-Gel Method Vivek Verma, **Neelam Singh**, and Jarnail Singh Bangruwa

➤ IN NATIONAL/INTERNATIONAL CONFERENCE PROCEEDING

1. Attended and Presented a Paper entitled Oxide based Hydroelectric Cell: An Effective Way of Cost Effective and Eco-Friendly Source of Energy and Received Second position in Paper Presentation award in the international conference on Recent Trends in drug discovery and development organized by Maitreyi College on October 08-09, 2021
2. Participated in Poster Session and Presented a Paper entitled Ferrites Based Hydroelectrical Cell for Green Energy Production in NAAC Sponsored National Seminar on Assessment and Accreditation of Best Practices in Higher Education Institution Under NAAC Framework held on November 5-6, 2019
3. Participated in National conference on “Biotechnology in Present Era: Impact on Human Life and Environment” organized by Maitreyi college on 23rd August 2019.
4. Participated in National conference on “Current and Future Perspectives in Nanotechnology “NANOWORLD-2018” held in Shivaji College on 12-13 April, 2018.
5. Participated in Poster Session on entitled “Growth and Characterization of Semi Organic Single Crystal” in the National Conference, “Interdisciplinarity: Prospects and Challenges” held in Maitreyi College from April 5-7, 2017.
6. Participated in International conference on Current Developments in Atomic, Molecular, Optical and Nano Physics with Applications (CDAMOP-2011) held at Department of Physics & Astrophysics, University of delhi, From 14th -16th December 2011.
7. Participated in National conference on Progress in Photovoltaics on 6th March 2010, organized by Semiconductor Society (India) And Sharda University.
8. “Effect of doping of acetic acid and thiourea in L-alanine Single crystals” 13th National Seminar on Crystal Growth, Tamilnadu (2009)
9. “Comparative Study of Growth and Characterization of NLO Semi-organic Crystals: L-alanine, L-alanine acetate and Thiourea L-alanine acetate” 38th National Seminar on Crystallography, University of Mysore (2009)
10. Participated in National conference on Advances in Technologically Important Crystals (NC-ATIC) held at Department of Physics & Astrophysics, University of Delhi, From 12th -14th October 2006.

➤ SEMINAR/WEBINAR/ WORKSHOP/ LECTURES

1. Completed 8-Day Online Workshop on DFT Calculations using Gaussian software during 18th -26th March 2023 Conducted by SIAS Research Forum
2. Participated in the 9 Day Online Hands on Rietveld Refinement during 25th January 2023 – 2nd February 2023 Conducted by SIAS Research Forum in Collaboration with the department of physics PSMO College Tirurangad, Kerala
3. Attended the online webinar on Horizons of High-Energy Physics held on 7th January 2023 conducted by Department of Physics and Electronics in collaboration with Research and Development Cell and Internal Quality Assurance Cell, Hansraj College, University of Delhi.

4. Attended the lecture on MY RESEARCH JOURNEY TO BRAIN by PROF. PRABHAT RANJAN, Vice Chancellor, D.Y. Patil International University, Pune on September 8, 2022 at Maitreyi College, University of Delhi.
5. SMD LECTURE-22
6. Attended a National Workshop "Challenges of Teaching Physics Laboratory Courses in Online Mode" organised by Department of Physics, Kalindi College, University of Delhi and The National Academy of Sciences India (NASI), Delhi Chapter on September 23-25, 2021
7. SMD LECTURE-21
8. Attended an International Webinar, "UNRAVELLING MYSTERIES OF THE UNIVERSE WITH EXPERTS" organized By Physics Department, Maitreyi College.
9. Attended the Alumni Lecture entitled "INTRODUCTION TO COMPUTATIONAL PHYSICS" by Ms. Arunima Singh, held on November 6, 2020 through Google meet platform.
10. SMD LECTURE-20
11. Attended a Seminar on Bridging the gap organised by Maitreyi College in collaboration with Sanskriti School Delhi on 21st January 2017
12. Participated in Two-day workshop "Nuclear power Driving The Nation Ahead" organized By Physics Department, Hindu College on 23rd-24th August 2016.

➤ **MEMBER OF ORGANIZING COMMITTEE**

1. **INTERNATIONAL SYMPOSIUM ON NUCLEAR ENERGY SOLUTIONS AND FUTURE ASPECTS (ISNESFA-2023)** organised on 16-17 March, 2023 by Department of Physics and Electronics, Hansraj College, University of Delhi and School of Physical Sciences, Jawaharlal Nehru University
2. Lecture on MY RESEARCH JOURNEY TO BRAIN by PROF. PRABHAT RANJAN, Vice Chancellor, D.Y. Patil International University, Pune on September 8, 2022 at Maitreyi College, University of Delhi.
3. **International Conference**, on Recent Trends in drug discovery and development organized by Maitreyi College on October 08-09, 2021
4. Poster making Competition on 'Women in Science after Independence' organised by Department of Physics, Maitreyi College on 31 August, 2021
5. PowerPoint Presentation competition organized by Department of Physics, Maitreyi College on 16th July 2021.
6. **International Webinar**, "UNRAVELLING MYSTERIES OF THE UNIVERSE WITH EXPERTS" organized By Physics Department, Maitreyi College on 4th March 2021
7. SMD LECTURE-2017 TO 2022
8. Quest 17- 22

➤ **Orientation/Induction/Conclave/FDP**

1. Participated in the National Education Conclave on "India's Future and Higher Education Organised by, Hansraj College, University of Delhi on 23-24 March 2023.
2. Completed ONLINE TWO - WEEK REFRESHER COURSE in "PHYSICS" from 27 February – 13 March, 2023 and obtained Grade A+ organised by Teaching Learning Centre Ramanujan College, University of Delhi under the aegis of Ministry of Education Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching.

3. Completed and secured Grade A in One Month “Faculty Induction Programme” (Blended Mode) (1st December – 30th December, 2022) organised by Mahatma Hansraj Faculty Development Centre Hansraj College, University of Delhi, under the aegis of Ministry of Education Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching.
4. Attended the One Week Short Term Training Programme (Online) on “ROLE OF RENEWABLE ENERGY SOURCES in INDIAN ENERGY SECURITY” organized by the Department of Mechanical, Production & Industrial and Automobile Engineering, Delhi Technological University, Delhi during 5-10 July 2021.
5. Successfully completing 4 weeks Faculty training Program on Google Applications Organised by Computer Science Department, Maitreyi College from 16 July to 20 August, 2020
6. Participated in the Faculty Development Programme on “Multifunctional Materials for Energy Harvesting and Allied Devices” Organised by department of Physics on 10th November 2017
7. Participated in the Faculty Development Workshop “Introduction to Scilab” Organised by department of Physics & Electronics, Hansraj College from 22-23 September 2017.

➤ **RESPONSIBILITY IN EVALUATION PROCESS/ ADMINISTRATIVE**

1. Involved in Evaluation of answer scripts of Open Book Examination (OBE)
2. Member of Admission Committee