



Faculty Details Proforma

Title	Dr	First Name	Neeru	Last Name	Sehdev	Photograph
Designation		Assistant Professor				
Address		Daulat Ram College, 4 Patel Marg , Delhi-110007				
Email- ID		neeru@dr.du.ac.in				
Web Page						
Educational Qualification						
Degree		Institution			Year	
B.Sc.		Rajdhani College, Delhi University			2005	
M.Sc.		Hindu College, Delhi University			2008	
Ph.D.		Department of Physics and Astrophysics, Delhi University			2013	
<ul style="list-style-type: none">Topic of Research: Cobalt based Hard Magnetic Nanostructures: L_{10} CoPt alloy and $CoFe_2O_4$						
<ul style="list-style-type: none">Total Number of Publication: 16Total Citation: 195				<ul style="list-style-type: none">h-index: 8i10-index: 6		
Career Profile						
<u>Teaching Experience</u> <ul style="list-style-type: none">23rd August'2018- till date: Assistant Professor (Adhoc) at Daulat Ram College, University of Delhi20th July'2016- 19th May'2018: Assistant Professor (Adhoc) at Keshav Mahavidyalaya, University of Delhi13th Aug'2014 – 19th Sep'2015: Assistant Professor (Adhoc) at Keshav Mahavidyalaya, University of Delhi25th Jan'2014 – 22nd May'2014: Assistant Professor (Adhoc) at Keshav Mahavidyalaya, University of DelhiAssistant Professor (Guest) at Miranda House, University of Delhi (4 semesters)Assistant Professor (Guest) at Maitreyi College, University of Delhi (2 semesters)						
Administrative Assignments						
<ul style="list-style-type: none">In-charge, Coherence The Physics Association, Physics Department, Daulat Ram College (July-2019- March 2020)In-charge, Coherence The Physics Association, Physics Department, Daulat Ram College (March 2020- March 2021)Member of data compilation team of science departments for India Today Ranking Daulat Ram College (2020-21)Teacher In Charge, Physics Department, Daulat Ram College (April 2021- April 2022)Member of Teaching Programme Committee during the Academic Year -2022-2023						
Areas of Interest/Specialization						
Condensed Matter Physics, Thermal Physics and Electromagnetic Theory						

Subjects Taught

Thermal Physics, Electromagnetic Theory, Waves and Optics, Communication Systems etc.

Research Guidance

None

Publications Profile

Published in International Journals

1. Thermal annealing and transient electronic excitations induced interfacial and magnetic effects on Pt/Co/Pt trilayer. **Neeru Sehdev**, Rohit Medwal, Rakesh Malik, Asokan Kandasami, Dinakar Kanjilal and S. Annapoorni Nucl. Inst Meth in Phys Res B 420 (2018) 50
2. Dense-Plasma-Driven Ultrafast Formation of FePt Organization on Silicon Substrate. Rohit Medwal, **Neeru Sehdev**, Wang Ying, R.S. Rawat and S. Annapoorni, Bull. Mater. Sci 40 (2017) 233
3. Nucleation Controlled Magnetization Reversal Mechanism in Oriented L10 FeCoPt Ternary Alloys. Rajan Goyal, **Neeru Sehdev**, S. Lamba and S. Annapoorni, Solid State Communications 226 (2016) 44
4. Defects Mediated Diffusion in Pt/Co/Pt Multilayers Induced by Dense Electronic Excitations. **Neeru Sehdev**, Rohit Medwal, Rakesh Malik, Dinesh Chandra Agarwal, K. Asokan, D. Kanjilal and S. Annapoorni, Cur. Appl. Phys. **14** (2014) 455
5. Magnetic Memory Effects in Nickel Ferrite/ Polymer Nanocomposites. Rakesh Malik, **Neeru Sehdev**, Subhalakshmi Lamba, Parmanand Sharma, Akihiro Makino and Subramanian Annapoorni, Appl. Phys. Lett. **104** (2014) 122407
6. Room Temperature Coercivity and Interaction Effects in L1₀ FePt Nanoparticles. Rohit Medwal, **Neeru Sehdev**, S. Lamba, Alok Banerjee, and S. Annapoorni, J. Phys. D: Appl. Phys. **47** (2014) 355002
7. Engineering Strain, Densification, Order Parameter and Magnetic Properties of FePt Thin Films by Dense Electronic Excitations. Rekha Gupta, **Neeru Sehdev**, K. Asokan, D. Kanjilal, and S. Annapoorni, J. Appl. Phys. **116** (2014) 083902
8. Elimination of Impurity Phase Formation in FePt Magnetic Thin Films Prepared by Pulsed Laser Deposition. Y. Wang, Rohit Medwal, **Neeru Sehdev**, B. Yadian, T. L. Tan, P. Lee, A. Talebitaher, U. Ilyas, R. V. Ramanujan, Y. Huang and R. S. Rawat, Appl. Surf. Sci. **288** (2014) 381
9. Effect of Functionalization on Positional Ordering of 3nm FePt Nanoparticles: Langmuir – Blodgett Monolayer. Rohit Medwal, Kriti Gogia, Dhruv Thakar, Vaibhav Vibhu, John Rex Mohan, **Neeru Sehdev**, and S. Annapoorni, Surface and Coatings Technology **258** (2014) 509
10. Correlation of Interlayer Diffusion with the Stoichiometric Composition of RF Sputtered Pt/Co/Pt Sandwiched Structures. **Neeru Sehdev**, Rohit Medwal, Dinesh Chandra Agarwal and S. Annapoorni, J. Mater. Sci. **48** (2013) 3192
11. Temperature Dependent Magnetic and Structural Ordering of Self Assembled Magnetic Array of FePt Nanoparticles. Rohit Medwal, **Neeru Sehdev** and S. Annapoorni, J. Nano. Res. **15** (2013) 1423
12. Pt Diffusion Driven L1₀ Ordering in Off-Stoichiometric FePt Thin Films. Rekha Gupta, Rohit Medwal, **Neeru Sehdev** and S. Annapoorni, J. Magn. Mater. **345** (2013) 60

13. Ag Assisted Evolution of Ordered L₁₀ CoPt Alloy Nanoparticles. Neeru Sehdev, Rohit Medwal and S. Annapoorni, J. Alloys and Comp. **522** (2012) 85
14. Order-Disorder Investigation of Hard Magnetic Nanostructured FePt Alloy. Rohit Medwal, Neeru Sehdev and S. Annapoorni, J. Phys. D: Appl. Phys. **45** (2012) 055001
15. Electronic States of Self Stabilized L₁₀ FePt Alloy Nanoparticles. Rohit Medwal, Neeru Sehdev, Govind and S. Annapoorni, Appl. Phys. A: Mater. Sci. Proc. **109** (2012) 403
16. Enhanced Phase Stabilization of CoPt in the Presence of Ag. Neeru Sehdev, Rohit Medwal and S. Annapoorni, J. Appl. Phys. **110** (2011) 033901

Conference Organization/Presentation

National and International Conferences/Webinars Attended

1. Webinar on NEP 2020 on the theme “Internship/Apprenticeship Embedded Degree Program” organized by Centre for Professional Development in Higher Education, MMTTC, Delhi University on 3rd February 2024
2. National webinar “Solid Angles all around : An easy estimate” organized by Physics Department, Kalindi College, Delhi University under the aegis of NASI, Delhi Chapter on 1st November 2022
3. National webinar “Quantum Science in Visible Range” organized by Physics Department, Kalindi College, Delhi University under the aegis of NASI, Delhi Chapter on 22nd October 2022
4. National webinar “Simple Experiments – Big Learning” organized by Physics Department, Kalindi College, Delhi University under the aegis of NASI, Delhi Chapter on 19th October 2022
5. Webinar on “10 Beautiful Experiments in Physics” organised by Indian Association of Physics Teachers, Regional Council (Delhi and Haryana) on 15th January 2022
6. Attended a National Conference of Science Communicators and Science Teachers, Indian Independence Movement and the Role of Science on 29-30th November 2021
7. National webinar on “Current Trends in Science and Technology” organized on 3rd September 2021 by Department of Mathematics, Daulat Ram College, University of Delhi.
8. National webinar on “Basics of Income Tax and E-filing for ITR for Salaried Individuals for FY 2020-21” organized on 1st September 2021 by Department of Commerce, Daulat Ram College, University of Delhi.
9. National webinar on “Footprints of Indian Women in Science” organized on 25th August 2021 by Department of Chemistry, Daulat Ram College, University of Delhi.
10. International Webinar on “Modern Approach on Magnetism and Material Science in Engineering” organized on 15-18th September 2020 by Department of Physics, Maharaja Institute of Technology, Mysore in association with IEEE RAS Chapter, MIT Mysore.
11. National webinar on “Misinformation and Online Safety Practices” organized on 3rd June 2020 by Gender Champion Cell of Daulat Ram College, University of Delhi.
12. National webinar “Art and Science of Mentoring” organized on 1st June 2020 by Physics Department, Daulat Ram College, University of Delhi.
13. International Conference on Magnetic Materials and Applications, Indian Institute of Technology, Guwahati, 5th – 7th December 2013.

14. Indo-German Workshop on Advanced Materials for Future energy Requirements (WAMFER), University of Delhi, Delhi, 29th November-1st December 2012.
15. International Conference on Magnetic Materials and Applications, Indian Institute of Technology, Madras, 12th – 13th March 2012.
16. International Conference on Nano Science and Technology, International Advanced Research Centre for Powder Metallurgy and New Materials (ARCI), Hyderabad, 20th – 23rd January' 2012.
17. International Conference on Nano Science and Nanotechnology, University of Delhi, Delhi, 18th – 21st December' 2011.
18. Current Developments in Atomic, Molecular, Optical and Nano Physics with Applications, University of Delhi, Delhi, 14th-16th December'2011.
19. Indraprastha International Conclave on Nano Science and Technology, Guru Govind Singh Indraprastha University, New Delhi, 16th – 17th November 2010.
20. International Conference on Magnetic Materials, Saha Institute of Nuclear Physics (SINP), Kolkata, 25th – 29th October 2010.
21. International Conference on Nano Science and Technology, Indian Institute of Bombay (IIT B), Mumbai, 17th – 20th February 2010.

Seminars/Workshops Organized

1. Co- coordinator for the one week In-House Skill Development program on “Designing an Arduino-Powered Motion Detection System” organized by Department of Physics, Daulat Ram College, University of Delhi from 15th-23th January, 2025.
2. Member of organizing committee in a 3 days National Drama Workshop on ‘ Gender Trouble’ organised by Memesis, The Theatre Society of Daulat Ram College in collaboration with The Shakespeare Society of India and Nireeksha Women’s Theatre Group on 21st – 23rd November 2024.
3. Member of organizing committee in a one day Seminar on “Unlocking the Quantum World” organized by the Department of Physics, Daulat Ram College, University of Delhi, on 30th September 2023.
4. Member of organizing committee in a one day Seminar on “Artificial Intelligence and Machine Learning for Physicists” organized by the Department of Physics, Daulat Ram College, University of Delhi, on 12th February 2022.
5. Member of organizing committee in one week Online National FDP “Basic Skills in Experimental Physics” organised by SEC, DU in collaboration with DRC, DU and GAD-TLC from 17th – 23rd July 2023
6. Convenor of the online lecture series “Understanding Physics: Basics and Beyond” organized by the Department of Physics, Daulat Ram College, University of Delhi, on 12th and 19th January 2022.
7. Convenor of a 2 days workshop on “Enhancing Programming Skills With Python and XCOS”, organized by the Department of Physics, Daulat Ram College, University of Delhi, on 13th-14th January 2022.
8. Course coordinator for the In-House Skill Development program “Enhancing Learning through ICT Tools” organized by Department of Physics, Daulat Ram College, University of Delhi from 24-25th November, 2021.
9. Member of organizing committee of webinar “Photonics for Energy conversion and conservation” organized on 13th September 2021 by Physics Department, Daulat Ram College, University of Delhi.

10. Member of organizing committee of webinar “What is Data Science? Its relevance and opportunities” organized on 17th February 2021 by Physics Department, Daulat Ram College, University of Delhi.
11. Member of organizing committee of webinar “ Wonder that is Nano: Emerging trends in Nanotechnology” organized on 28th September 2020 by Physics Department, Daulat Ram College, University of Delhi.
12. Member of organizing committee of webinar “Art and Science of Mentoring” organized on 1st June 2020 by Physics Department, Daulat Ram College, University of Delhi.
13. Organized an educational trip to National Vigyan Samagam on 14th Feb 2020 with a group of 35 students.
14. Member of organizing committee of workshop organized on “Quantum Mechanics & its Applications” on 24 Sep 2019 at Daulat Ram College, in collaboration with National Academy of Sciences of India, Delhi Chapter.
15. Member of organizing Committee of National Symposium/Workshop on “Yoga and Meditation for the Holistic Well Being” held on 7th March, 2019 at Daulat Ram College, University of Delhi.
16. Member of organizing committee in Department of Science and Technology INSPIRE camp 2018 organized from 17-21 December, 2018 at Daulat Ram College, University of Delhi.
17. Organized an educational trip to National Physical Laboratory (NPL) on 17th Sep 2018 with a group of 37 students.

Resource Person

1. One week In-House Skill Development program on “Designing an Arduino-Powered Motion Detection System” organized by Department of Physics, Daulat Ram College, University of Delhi from 15th-23th January, 2025.
2. Two days workshop on “Learning Physics & Electronics through Simulations & Demonstrations” organized from 16th – 17th November 2024 at Physics Department, Daulat Ram College, University of Delhi.
3. In House Skill Development Program on “Enhancing Learning through ICT Tools organized from 23rd -24th August 2023 at Physics Department, Daulat Ram College, University of Delhi.
4. In House Skill Development Program on “Enhancing Learning through ICT Tools for 1st year students” organized from 17-19th December 2020 at Physics Department, Daulat Ram College, University of Delhi.
5. In House Skill Development Program on “Enhancing Learning through ICT Tools for 2nd and 3rd year students” organized from 17-19th August 2020 at Physics Department, Daulat Ram College, University of Delhi.
6. In House Skill Development Program on “Latex & its Applications” organized from 12-19 July, 2019 at Physics Department, Daulat Ram College, University of Delhi.
7. In House Skill Development Program on “Basic Electronics Skills and Applications” organized from 24-31 December, 2018 at Physics Department, Daulat Ram College, University of Delhi.
8. Resource person in Department of Science and Technology INSPIRE camp 2018 organized from 17-21 December, 2018 at Daulat Ram College, University of Delhi.

Participation in Schools / Workshops/ Faculty Development Program for Curriculum Development

1. Faculty Development Program on Indian Knowledge System and Mindfulness: Enhancing Resilience and Emotional Intelligence in Educators organized by Indian Knowledge System Cell, Technia Institute of Advanced Studies in collaboration with Apna Pariwar Global from 13th – 18th January 2025.
2. Participation in Startup Master Class Event Mission Product Bharat organized on 23rd Nov 2024 by IIT Kanpur Alumina Association, Delhi Chapter in association with the Department of Science and Technology (DST) Government of India.

3. Faculty Development Program on Technologies for Societal Needs- Real Time Applications of AI, ML and Research Initiatives held from 3rd - 7th August 2020 by Department of Computer Science and Engineering, Karunya Institute of Technology and Sciences, Tamil Nadu and Department of Computer Science and Engineering, North Eastern Regional Institute of Science and Technology, Arunachal Pradesh, India.
4. Faculty Development Program on Empowering Teaching Learning Process using Google Classroom and other ICT Tools: A Comprehensive Practical Approach held from 21st -23rd July 2020 by Department of Commerce, Daulat Ram College, University of Delhi.
5. NIUS Teacher development workshop on Thermal & Statistical Physics held from 10-13th December'2019 at Homi Bhabha center for Science Education (TIFR) Mumbai.
6. Mega event “Global Bio India 2019” held from 21-23rd November 2019 at Aerocity, New Delhi.
7. One Day Workshop on “Soft Skill Development in New Age Teaching” held on 19th October 2019 organized by Mahatma Hansraj Faculty Development Centre, Hansraj College, University of Delhi.
8. National Symposium/Workshop on “Yoga and Meditation for the Holistic Well Being” held on 7th March, 2019 at Daulat Ram College, University of Delhi.
9. Faculty Development Program on Applied Physics and Embedded Systems Design held from 14-15th Dec 2017 at Department of Physics and Electronics, Rajdhani College, University of Delhi.
10. Workshop in Low Energy Ion Beam, 21st- 22nd October 2011, Inter University Accelerator Centre (IUAC), New Delhi.
11. 5th DST Advanced School on Nano Science and NanoTechnology, 17th – 23rd January 2011, Indian Institute of Science, Bangalore.
12. Workshop on Anisotropic Nanostructures: Synthesis to Functionalization, 17th February 2010, TIFR Mumbai.
13. Indo Russian Workshop on Nanotechnology and Laser Induced Plasma 2009, 24th -26th November 2009, University of Delhi, Delhi.
14. Course Module on Cryogenic, 30th March –28th April 2009, Inter-University Accelerator Centre, Delhi.
15. Course Module on Vacuum Techniques, 16th Feb- 7th March 2009 Inter-University Accelerator Centre, Delhi.

Research Projects (Major Grants/Research Collaboration)

None

Awards and Distinctions

None

Association with Professional Bodies

- Life Member of Indian Association of Physics Teachers (Membership Number: 13741 L8740)
- Life Member of VIBHA (Membership Number: 5320)

Other Activities