




DEPARTMENT OF PHYSICS
DYAL SINGH COLLEGE, UNIVERSITY OF DELHI
FACULTY DETAIL



Title	Dr.	First Name	ARPITA	Last Name	VAJPAYEE	Photograph
Designation		ASSISTANT PROFESSOR				
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Educational Qualifications						
Degree	Institution			Year		
B.Sc.	University of Rajasthan, Jaipur			2002		
M.Sc. (Physics)	University of Rajasthan, Jaipur			2005		
Ph.D.	University of Delhi, Delhi			2013		
NET-JRF	CSIR			2005		
Career Profile						
<p>(a) Worked as a Junior Research Fellow (JRF) in <i>National Physical Laboratory, New Delhi</i> from 6th March 2006 to 5th March 2008 (Two years)</p> <p>(b) Worked as a Senior Research Fellow (SRF) in <i>National Physical Laboratory, New Delhi</i> since 6th March 2008 to 2nd March 2011 (Three years)</p> <p>(c) Worked at <i>CNR-INFN-LAMIA lab, Genova, ITALY</i> for one month from 09/04/2010 to 09/05/2010 under a joint research project between CSIR(India)-CNR(Italy) on the activities of superconducting MgB₂ wires/tapes</p> <p>(d) Working as an Assistant Professor (Physics) in <i>Dyal Singh College, Delhi</i> from March 2011 to till date</p>						
Administrative Assignments (From 1st July 2018 onwards)						
<p>(a) Convener, Physics Society (COSMOS), Dyal Singh College, University of Delhi</p> <p>(b) Member, NIRF committee, Dyal Singh College, University of Delhi</p> <p>(c) Member, Admission Committee, Department of Physics, Dyal Singh College, University of Delhi</p> <p>(d) Member, Physics Society (COSMOS), Dyal Singh College, University of Delhi</p> <p>(e) Member, Mentor-Mentee Committee, Department of Physics, Dyal Singh College, University of Delhi</p> <p>(f) Member, NAAC Committee, Department of Physics, Dyal Singh College, University of Delhi</p> <p>(g) Member, Library Committee, Department of Physics, Dyal Singh College, University of Delhi</p> <p>(h) Member, Alumni Association, Department of Physics, Dyal Singh College, University of Delhi</p> <p>(i) Member, Parent Teacher Association (PTA), Department of Physics, Dyal Singh College, University of Delhi</p>						

Areas of Interest / Specialization	
<p>My research interest lies in the area of Superconductivity and Material Science i.e. synthesis and analysis of various physical properties of superconducting materials like MgB₂, Y123, REFeAsO (RE= rare earth elements), FeTe/Se & SrFe₂As₂ and improvement in superconducting properties via addition or substitution of nano-particles or other elements & compounds.</p>	
Subjects Taught	
<p>(1) Thermal Physics (Theory) (2) Waves and Optics (Theory) (3) Statistical Mechanics (Theory) (4) Renewable Energy and Energy Harvesting (Theory) (5) Mechanics (Theory) (6) Science and Society (Theory)</p>	<p>(1) Solid State Physics Lab (2) Elements of Modern Physics Lab (3) Electromagnetic Theory Lab (4) Thermal Physics and Statistical Mechanic Lab (5) Waves and Optics Lab (6) Thermal Physics Lab (7) Mechanics Lab</p>
Research Guidance	
Publications Profile (Mention total no. and details from 1 st July 2018 onwards only)	
<p>(1) "Design, synthesis, molecular docking, and DFT studies on novel melatonin and isatin-based azole derivatives" Keshav Kumar Saini, Ravindra Kumar Upadhyay, Ravi Kant, Arpita Vajpayee, Kalpana Jain, Amit Kumar, Lalita S. Kumar, and Rakesh Kumar RSC Advances (Accepted- Sep,2023)</p> <p>From 2006 onwards : Total Number of publications in International Journals – 31 Research Papers in Indian Journals – 03 Research Papers Presented in Conferences - 05</p>	
Conference Organization/ Presentations (From 1 st July 2018 onwards)	
<p>Conferences/ Seminars/ Events/ Competitions organized</p> <ul style="list-style-type: none"> Organised Seminar on “Uncovering the Mysteries of Creation” and Farewell & Fresher’s welcome function on 12th April, 2023 at Dyal Singh College (Member) Organised LOGO designing Competition and Power Point Presentation Competition on 11th April, 2023 at Dyal Singh College (Member) Organised Poster making competition on 22nd Aug, 2023 at Dyal Singh College (Member) Organised Seminar on “Sustainable Energy Harvesting Using Photovoltaic” on 31st Jan, 2023 at Dyal Singh College (Member) Organised Seminar on “Aspects of Light Measurement” on 21st April, 2022 at Dyal Singh College (Member) Organised Webinar on “How can theoretical physics help with pandemics?” on 11th March, 2022 at Dyal Singh College (Member) 	

- Organised Webinar on “Soft and squishy materials and how to think about them” on 11th Nov, 2021 at Dyal Singh College (Member)
- Organised one day seminar on “Synthesis and characterization of advanced functional materials” on 19th April, 2021 (in online mode) at Dyal Singh College (Member)
- Organized intra- college Power Point Presentation competition on various Physics topics on 29th January, 2020 at Dyal Singh College (Member)
- Organised seminar on ‘CLIMATE CHANGE’ on 13th Sep, 2019 at Dyal Singh College (Member)
- Organised a lecture by Prof. Ajoy K. Ghatak (Professor Retired, IIT Delhi) on “ $E = mc^2$ ” on 11th Feb, 2019 at Dyal Singh College (Member)
- Organised seminar on ‘WHAT IS A PHOTON?’, Power Point Presentation Competition and Poster making competition on 25th Feb, 2019 at Dyal Singh College (Member)

Conferences/Faculty Development Programme/Workshops/Refresher Courses Attended

- DBT sponsored Faculty Development Workshop- “Introduction to Scilab”- September 22 & 23, 2017 at Hansraj College, Univ. of Delhi, Delhi
- National Workshop on “Challenges of Teaching Physics Laboratory Courses in Online Mode”, from 23rd to 25th Jan, 2021 - Organized by Kalindi College, Univ. of Delhi and The National Academy of Sciences India (NASI), Delhi Chapter
- Workshop on “Programming and Software Tools for UG Courses”, from 19th to 21st Mar 2021 - Organized by Department of Physics and Electronics, Rajdhani College, University of Delhi
- National Science Day program on 28th Feb, 2021 - organized by Inter-University Accelerator Centre (IUAC), New Delhi
- Webinar on “Introduction to COMSOL Multiphysics - 25th Mar, 2021 - Organized by Deshbandhu College, University of Delhi
- Interdisciplinary Faculty Development Programme on ‘Interdisciplinary Studies and Higher Education: Prospects and Challenges’ - July 26-31, 2021 - organized by Dyal Singh College & Mahatma Hansraj Faculty Development Centre, Hansraj College, University of Delhi
- Faculty Development Programme on “Materials Characterization : Experimental And Theoretical Aspects” – September 20-24, 2021 - organized by Mahatma Hansraj Faculty Development Centre, Hansraj College, University of Delhi
- Webinar on “Revisiting the Laws of Thermodynamics” – 3rd July, 2021 – organized by Indian Association of Physics Teachers (IAPT), Regional Council (Delhi & Haryana)
- Workshop for college teachers teaching the Physics (Hons.) papers – 4th Nov, 2022 – organized by Department of Physics & Astrophysics, University of Delhi
- Workshop on “Optics, evolution and demo on the assembly of Telescopes” and “A night gazing session” – October 17th, 2022 – by Gargi College and National Academy of Sciences India (NASI)
- Faculty Development Programme on “Principles of Radiation Detection and Measurement and Experimental Techniques” – 3rd to 9th April, 2023, organized by Ramjas College collaboration with

<p>Mahatma Hansraj Faculty Development Centre Hansraj College, University of Delhi</p> <ul style="list-style-type: none"> Faculty Induction Programme from 20th June to 19th July, 2023 organised by Mahatma Hansraj Faculty Development Centre Hansraj College, University of Delhi
<p>Research Projects (Major Grants/Research Collaboration) (From 1st July 2018 onwards)</p>
<p>Awards and Distinctions (From 1st July 2018 onwards)</p>
<p>Association With Professional Bodies</p>
<p>Other Activities like MOOCs/ Patents etc. (From 1st July 2018 onwards)</p>

Arpita

Signature of Faculty Member