

Ms. Bhavna Vidhani
bhavna.vidhani@gmail.com



PERSONAL DETAILS

Address: 82, B. D. Estate, Timarpur, Delhi-110054
Marital Status: Married
Nationality: Indian
Category: General
Designation & Department: Associate Professor, Department of Physics & Electronics, Hansraj College, University of Delhi.

EDUCATIONAL QUALIFICATIONS

1. M.Tech. degree awarded from IIT, Delhi and secured a CGPA 8.66 [Thesis entitled “Fabrication & Characterization of fiber optic pH-sensor using sol-gel technology”]
2. Qualified CSIR-UGC JRF (NET) examination.
3. Qualified for Dr. Shyama Prasad Mukherjee fellowship (SPMF).
4. Qualified GATE with a percentile of 93.95 and All India Rank 125.
5. M.Sc. (Physics) from University of Delhi and secured 73.3%. [Received certificate of merit for securing first position in M.Sc. Physics in Hansraj College, University of Delhi.]
6. B.Sc. (H) Physics from University of Delhi and secured 73.11%.
7. 12th from CBSE and secured 76%.
8. 10th from CBSE and secured 79.4%.

TEACHING EXPERIENCE

- Associate Professor at Hansraj College, University of Delhi (since Feb. 08, 2019 till date)
- Assistant Professor at Hansraj College, University of Delhi (since July 21, 2010 to Feb. 07, 2019)
- Lecturer at Rajdhani College, University of Delhi (from Aug. 02, 2007 to July 20, 2010)
- Lecturer at Kalindi College, University of Delhi (from July 19, 2006 to Apr. 30, 2007)
- Lecturer at S.G.T.B. Khalsa College, University of Delhi (from Aug. 24, 2005 to Apr. 25, 2006 & from July 17, 2007 to July 31, 2007)

SUBJECTS TAUGHT

Mathematical Physics, Mechanics, Waves & Oscillations, Optics, Physics-1, Numerical Analysis, Computer Fundamentals & Programming, Statistical Physics, Quantum Physics & Electronics, Essentials of Physics, Analog & Digital Circuits, Thermal Physics, Electromagnetism & Atomic Physics.

CONTRIBUTION TO ADMINISTRATIVE COMMITTEES & RESPONSIBILITIES

Academic Year: 2023-24

1. Member, Time table Committee (Science), Hansraj College.
2. Member, Canteen Committee, Hansraj College.
3. Member, Infrastructure Committee, Department of Physics & Electronics.

Academic Year: 2022-23

1. Member, Time table Committee (Science), Hansraj College.
2. Member, Canteen Committee, Hansraj College.
3. Member, Grievance Committee, Hansraj College.
4. Member, Purchase Committee, Department of Physics & Electronics.
5. Member, Time table & Workload Committee, Department of Physics and Electronics.
6. Member, Infrastructure Committee, Department of Physics & Electronics.
7. Member, Screening Committee, Department of Physics and Electronics.
8. Criterion 6, NAAC, Departmental Nominee, Department of Physics & Electronics

Academic Year: 2021-22

1. Member, Garden Committee, Hansraj College.
2. Member, Women Development Committee, Hansraj College.
3. Member, Infrastructure Committee, Department of Physics & Electronics.
4. Member, Admission Committee, Department of Physics and Electronics.
5. Member, Screening Committee, Department of Physics and Electronics.

Academic Year: 2020-21

1. Member, Garden Committee, Hansraj College.
2. Member, Women Development Committee, Hansraj College.
3. Member, Administrative Committee, Department of Physics and Electronics.
4. Member, Departmental Monitoring Committee, Department of Physics and Electronics.
5. Member, Infrastructure Committee, Department of Physics & Electronics.

Academic Year: 2019-20

1. Member, College Science Timetable Committee.
2. Member, College Purchase Committee.
3. Member, College Workload Committee.
4. Admission-In-Charge, B.Sc.(H) Physics, 2019-20.
5. Teacher-In-Charge, Department of Physics & Electronics, academic session 2019-20.
6. Convener, Departmental Administrative Committee.
7. Convener, Time-Table & Workload Committee, Department of Physics & Electronics.
8. Convener, Departmental Monitoring Committee.
9. Member, Infrastructure Committee, Department of Physics & Electronics.
10. Superintendent for Practical examination (June 2019), Department of Physics & Electronics.
11. Superintendent Practical Examinations (May 2020), Department of Physics & Electronics.
12. Member for revising the Under-Graduate Curriculum in the light of UGC's Learning Outcome-Based Curriculum Framework (UGC-LOCF):
Course Name: B.Sc.(H) Physics, Paper Title: Mathematical Physics

Academic Year: 2018-19

1. Member: College Science Timetable Committee.
2. Admission-In-Charge, B.Sc. (H) Electronics, 2018-19.
3. Member: Environmental Awareness Committee.
4. Member, Departmental Administrative Committee, Department of Physics & Electronics.
5. Member, Infrastructure Committee, Department of Physics and Electronics.

Academic Year: 2017-18

1. Member, Canteen Committee, Hansraj College.
2. Member, Women Development Committee, Hansraj College.
3. Member: College Science Timetable Committee.
4. Member, Infrastructure Committee, Department of Physics and Electronics.

Academic Year: 2016-17

1. Member, Canteen Committee, Hansraj College.
2. Member, Environmental Awareness Committee (Haritima), Hansraj College.
3. Convener, Purchase Committee, Department of Physics and Electronics.
4. Member, Infrastructure Committee, Department of Physics and Electronics.
5. Admission-In-Charge, B.Sc. (Physical Science), 2016-17.

Academic Year: 2015-16

1. Member, Women Development Committee, Hansraj College.
2. Member: College Science Timetable Committee (Even Semester), Hansraj College.
3. Admission-In-Charge, B.Sc. (H) Electronics.
4. Member, Infrastructure Committee, Department of Physics and Electronics.
5. Member, Time Table Workload Committee, Department of Physics and Electronics.

Academic Year: 2014-15

1. Deputy Superintendent, Theory Examinations (Morning and Evening), Hansraj College, May-June 2014.
2. Member, Infrastructure Committee, Department of Physics and Electronics.

Academic Year: 2013-14

1. Member, Time Table Workload Committee, Department of Physics and Electronics.
2. Member, Infrastructure Committee, Department of Physics and Electronics.

Academic Year: 2012-13

1. Convener, Physics and Electronics Society : LUMEN, Hansraj College.
2. Member, Infrastructure Committee, Department of Physics and Electronics.
3. Member, Purchase Committee, Department of Physics and Electronics.

Academic Year: 2011-12

1. Syllabus Revision Committee, Hansraj College Representative in Department of Physics & Astrophysics, University of Delhi.
2. Admission-In-Charge, B.Sc. (Physical Science), 2011-12.

3. Member, Infrastructure Committee, Department of Physics and Electronics.
4. Member, Purchase Committee, Department of Physics and Electronics.

PROJECTS

1. Completed project titled “Experimental Studies of Tip-Tilt Mirror in Open and Closed Loop Configurations”, at Laser Science and Technology Centre (LASTEC), Metcalfe House, Delhi of Defence Research and Development Organisation (DRDO).
2. Completed project titled “Moiré fringes and their applications”, at Indian Institute of Technology, Delhi.

PROJECT INVESTIGATOR IN DBT-SPONSORED MINOR PROJECTS

Academic Year: 2017-18

1. To study the effect of filters on the optical activity of different sugar solutions.
2. To study the bending of beams and determine the Young’s modulus of the material of a bar (a meter rod) by using it as a cantilever.

Academic Year: 2016-17

1. To design an off-balance Wheatstone Bridge and investigating the dependence of the bridge linearity and bridge sensitivity on circuit parameters.
2. To determine Specific Rotation of optically active substances.
3. Study of Structural Properties of using X-ray Diffraction.

BOOK / CHAPTER IN EDITED BOOK

1. Book titled, 'Problems and Solutions on Vector Analysis', (Sept. 2021) New India Book Agency, New Delhi, ISBN: 978-81-9497-584-7.
2. Book titled, '**Seven Years Solved Papers (2014–2020) (DU Entrance M. Sc. Physics)**', (June 2021) New India Book Agency, New Delhi, ISBN: 978-81-9497-583-0.
3. Chapters in Edited Books:-
 - Title of Edited Book, '**Electromagnetic Wave Propagation for Industry and Biomedical Applications**', Title of Chapter, '**Physics of Absorption and generation of Electromagnetic Radiation**', (Aug. 2021) IntechOpen Publishers, London, UK, ISBN: 978-1-83938-581-1
 - Title of Edited Book, '**Plasma Science and Technology**', Title of Chapter, '**Numerical Investigations of Electromagnetic Oscillations and Turbulences in Hall Thrusters Using Two Fluid Approach**', (Sept. 2021) IntechOpen Publishers, London, UK, ISBN: 978-1-83969-623-7
 - Title of Edited Book, '**Plasma Science - Recent Advances, New Perspectives and Applications**', Title of Chapter, '**Plasma Waves and Rayleigh–Taylor Instability: Theory and Application**', (Feb. 2023) IntechOpen Publishers, London, UK, ISBN: 978-1-83768-024-5

LIST OF PUBLISHED PAPERS IN JOURNALS

- “Pulse train induced rotational excitation and orientation of a polar molecule”, Ashish Tyagi, Urvashi Arya, **Bhavna Vidhani**, Vinod Prasad, *Spectrochimica Acta Part A* 129 (2014) 193-200. ISSN: 1386-1425. I.F. 4.098
- “Response of perturbed spherium to external fields”, Poonam Silotia, **Bhavna Vidhani** and Vinod Prasad, arXiv:1511.06847 (Nov. 2015).
- “Positronium under harmonic and plasma confinement”, D. Munjal, **B. Vidhani** and V. Prasad, 2nd International Conference on Condensed Matter and Applied Physics (ICC 2017), held on Nov. 24-25, 2017, American Institute of Physics (AIP) Conference Proceedings 1953, 140040-1–140040-4 (2018), Published by the American Institute of Physics.
- “Thermal properties of adsorbed molecule in external field”, S. Devi, **B. Vidhani** and V. Prasad, 2nd International Conference on Condensed and Applied Physics (ICC 2017), held on Nov. 24-25, 2017, American Institute of Physics (AIP) Conference Proceedings 1953, 140096-1–140096-4 (2018), Published by the American Institute of Physics.
- “Biomedical Applications of Nitrogen Doped Graphene: A Review”, Shravan Kumar Meena, Sanjeev Kumar, **Bhavna Vidhani**, Richa Jain, *Annals of the Romanian Society for Cell Biology*, ISSN:1583-6258, Vol. 25, Issue 4, April (2021) , Pages. 13870-13883
- “Orientation and Alignment dynamics of polar molecule driven by shaped laser pulses”, Vijit V Nautiyal, Sumana Devi, Ashish Tyagi, **Bhavna Vidhani**, Anjali Maan, Vinod Prasad, *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy*, 2021 Jul 15; 256:119663, ISSN No. 1386-1425 (print),1873-3557 (online)
- “Estimation of Mechanical Properties of Copper Powder filled Linear Low-density Polyethylene Composites”, Sukhmander Singh, Adriaan S. Luyt, R. S. Bhoopal, Sonia Yogi & **Bhavna Vidhani**, *Journal of Vibration Engineering & Technologies*. pp.1-12, (April 2022), ISSN: 2523-3939 (online), 2523-3920 (print)
- “Preparation and Investigations of Transparent Conducting Aluminium-Doped Zinc oxide films prepared by Sol-gel method for sensor application”, Prabhjot Singh, Sukhmander Singh, Jasmeet Kaur, Sonia Yogi & **Bhavna Vidhani**, *Indian Journal of Pure & Applied Physics*, (2022) Vol. 60, pp. 529-538, 2022, ISSN: 0975-1041
- “Passive Dosimeter Based on BaBrF: Tm³⁺ Phosphor for γ -ray Dosimetry”, Shashank Yadav, Manveer Singh, **Bhavna Vidhani**, Ashok Kumar, and P.D. Sahare, *Journal of Atomic, Molecular, Condensed Matter & Nano Physics*, Vol. 9, No. 1, pp. 31-39, 2022, (May, 2022), ISSN: 2582-8215.
- “Contextual Challenges' Parturition across Meandering Pathways Under New Education Policy 2020”, Ashish Tyagi, Uma Tyagi and **Bhavna Vidhani**, *HANS SHODH SUDHA*, Vol. 2, Issue 3, (March 2022), pp. 26- 30, ISSN: 2582-9777
- “A novel gas sensor based on activated charcoal and polyaniline composites for selective sensing of methanol vapors”, Manoj Kumar, Smriti Sharma, Rishi Pal, **Bhavna Vidhani**, Supreet, *Sensors and Actuators A: Physical* 352 (2023), 114210. ISSN: 0924-4247, Available online 02 Feb 2023, <https://doi.org/10.1016/j.sna.2021.114210>.
- “Impact of asymmetry of Razavy-type coupled well system and static electric field on the time-dynamical studies of entanglement”, Monica Gambhir, **Bhavna Vidhani**, Sumana Devi and Vinod Prasad, *European Physical Journal Plus* (2023) **138**: 57, ISSN: 2190-5444, Published online: 21 Jan 2023, <https://doi.org/10.1140/epjp/s13360-023-03683-1>
- “Effect of electric and magnetic field on thermal property of two dimensional harmonic oscillator”, Monika Arora, Rajesh Giri, Varsha, Kirtee Kumar, Chanchal Yadav, **Bhavna Vidhani**, Monica Gambhir, Vinod Prasad, *Results in Physics*, Volume 45, February 2023, 106225, ISSN: 2211-3797, <https://doi.org/10.1016/j.rinp.2023.106225>.

- “Composite nanoarchitectonics with reduced graphene oxide and polyaniline for a highly responsive and selective sensing of methanol vapors”, Manoj Kumar, Supreet, Smriti Sharma, Sneha Lata Goyal, Sanjeev Kumar, Sumit Chauhan, **Bhavna Vidhani**, Rishi Pal, Journal Materials Chemistry and Physics 312 (January 2024) 128626, ISSN: 2333-4436, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4568346.

CONFERENCE/SYMPOSIUM PAPER/POSTER PRESENTED

- Presented a paper titled “Photoionization of Hydrogenic Impurity in spherical quantum dot in absence of Gaussian potential”, in National Conference on Recent Advances in Materials and Field Theory (NCRAMFT-2K15), ISBN : 978-93-5254-054-9, organized by Bhagwan Parshuram Institute of Technology, Delhi, held on Dec. 28-29, 2015, sponsored by GGSIP University.
- Presented Two posters in the 4th International Conference on “Current Developments in Atomic, Molecular, Optical & Nano Physics with Applications (CDAMOP)”, held on March 11-14, 2015, organized by Department of Physics & Astrophysics, University of Delhi.
 1. Optical properties of coupled delta doped nano-rods in magnetic fields : Ashish Tyagi, Rajesh Giri, **Bhavna Vidhani** and Vinod Prasad [P-104].
 2. Orienting adsorbed molecules in static fields : Effect of confining potential : Ashish Tyagi, **Bhavna Vidhani**, Rajesh Giri and Vinod Prasad [P-57].
- Presented a Poster titled, “Multiphoton transitions in excitons confined on curved surfaces”, Ashish Tyagi, Anjali Mann, **Bhavna Vidhani** and Vinod Prasad in International Conference on Technologically Advanced Materials and Asian Meeting on Ferroelectricity (ICTAM-AMF 10) and Society for Technologically Advanced Materials of India (STAMI), University of Delhi, Delhi held on Nov. 7-11, 2016.
- Published an article titled, “Particle in a cylindrical box”, **Bhavna Vidhani**, Ashish Tyagi and Vijit Vinod Nautiyal [P-105] in National Workshop on “Nanotechnology : Emerging Frontiers and Applications”, ISBN : 978-93-81129-26-5 organized by Shyam Lal College, held on Jan. 30-31, 2017.

CONFERENCE/WORKSHOPS/FDP/SEMINARS ORGANIZED

1. Convener, “Special Campaign Activities on World Standards Day 2023”, held on Oct. 04 and 10, 2023 organised by Hansraj College in collaboration with Bureau of Indian Standards (BIS).
2. Steering Committee Member, International Symposium on, “Nuclear energy solutions and future aspects (ISNESFA-2023)”, organised on Mar. 16-17, 2023 by Department of Physics & Electronics, Hansraj College and School of Physical Sciences, Jawaharlal Nehru University.
3. Convener, “Basic Instrumentation Skills”, Laboratory Staff Training Program held on June 12th, 14th & 15th 2022, in the Department of Physics & Electronics, Hansraj College.
4. Member, Organising Committee, “IP-03: Materials Characterization: Experimental and Theoretical Aspects”, held on Sept. 20-24, 2021 organized by Mahatma Hansraj Faculty Development Center, Hansraj College.

5. Convener of Webinar, “Solid Waste Management – A Comparative Study”, held on Aug. 28, 2022.
6. Coordinator, “Advanced Materials : Theory and Applications”, UGC-DRDO-CSIR sponsored National Conference, Department of Physics and Electronics, Hansraj College, Sept 26-28, 2019.
7. Convener, “Introduction to Scilab”, DBT sponsored Faculty Development Workshop, Department of Physics and Electronics, Hansraj College, Sept. 22-23, 2017.
8. Member, Organizing Committee in the DBT-sponsored workshop on “Characterization of Materials by X-Ray Diffraction”, held on Feb. 23-24, 2016 at Department of Physics & Electronics, Hansraj College, University of Delhi.
9. Member, local organizing committee in 4th International Conference on “Current Developments in Atomic, Molecular, Optical & Nano Physics with Applications” held at Conference Centre, University of Delhi from Mar. 11-14, 2015.
10. Member, organizing committee in the DBT-sponsored workshop on “Fluorescence Studies of Organic Structures”, held on Sept. 26-27, 2014 at Department of Physics & Electronics, Hansraj College, University of Delhi.

CONFERENCES/WORKSHOPS/FDP/SEMINARS/WEBINARS ATTENDED

Academic Year: 2023-24

1. Participated in an Online lecture, “Aerosols and its impact on environment” held on Oct. 21, 2023, organised by Department of Physics and Electronics, Hansraj College.
2. Participated in an Online lecture, “Plasma Antenna for 5G Communication” held on Nov. 18, 2023, organised by Department of Physics and Electronics, Hansraj College.
3. Participated in SERB sponsored two day workshop under Scientific Social Responsibility (SSR) Scheme on “Unveiling the power of high intensity laser plasma” held on Dec. 15-16, 2023, organised by Department of Physics and Astrophysics, University of Delhi.
4. Participated in a One-Day National Workshop on, “ ShodhShuddhi / PDS (Special Training on DrillBit)” held on Feb. 15, 2024, organized by Delhi University Library System, University of Delhi, Delhi 110007 in collaboration with Balani Infotech Pvt Ltd, Noida & DrillBit, Bengaluru.
5. Participated in an Online lecture, “Plasma Science and Technology: An Introduction” held on Feb. 17, 2024, organised by Department of Physics and Electronics, Hansraj College.
6. Participated in a Seminar, “Statistics of Finite Level Systems” held on Feb. 22, 2024, organised by Department of Physics and Electronics, in collaboration with Student Learning Centre (SLC) & Institution’s Innovation Council (IIC), Hansraj College.

Academic Year: 2022-23

1. Participated in National Webinar, “Simple Experiment - Big Learning” as a part of National Webinar series, “Omnipresent Physics - An Experiential Approach” under the aegis of The National Academy of Sciences, India (NASI) - Delhi Chapter, Science-Society Program organised by Department of Physics, Kalindi College, University of Delhi on Oct. 19, 2022.
2. Participated in National Webinar, “Science of Imaging: Thousand words on what a picture is worth” as a part of National Webinar series, “Omnipresent Physics - An Experiential Approach” under the aegis of The National Academy of Sciences, India (NASI) - Delhi Chapter, Science-Society Program organised by Department of Physics, Kalindi College, University of Delhi on Oct. 20, 2022.

3. Participated in National Webinar, “Quantum Science in visible range” as a part of National Webinar series, “Omnipresent Physics - An Experiential Approach” under the aegis of The National Academy of Sciences, India (NASI) - Delhi Chapter, Science-Society Program organised by Department of Physics, Kalindi College, University of Delhi on Oct. 22, 2022.
4. Participated in National Webinar, “Solid Angle all around - An easy estimate” as a part of National Webinar series, “Omnipresent Physics - An Experiential Approach” under the aegis of The National Academy of Sciences, India (NASI) - Delhi Chapter, Science-Society Program organised by Department of Physics, Kalindi College, University of Delhi on Nov. 01, 2022.
5. Participated in “Exposure Camp for Astronomy under the Olympiad Program” from Nov. 21-24, 2022 at Homi Bhabha Centre for Science Education (TIFR), Mumbai.
6. Participated in International Symposium on, “Nuclear energy solutions and future aspects (ISNESFA-2023)”, organised on Mar. 16-17, 2023 by Department of Physics & Electronics, Hansraj College and School of Physical Sciences, Jawaharlal Nehru University.

Academic Year: 2021-22

1. Participated in Online Lecture organized by Indian Association of Physics Teachers Regional Council (Delhi & Haryana) on “Revisiting the Laws of Thermodynamics”, by Prof. Rajaram Nityananda, Azim Premji University, Bengaluru, on July 03, 2021.
2. Participated in Online Lecture organized by Indian Association of Physics Teachers Regional Council (Delhi & Haryana) on “Hidden Symmetries in Planetary Motion”, by Prof. Venkatraman Balakrishnan, Adjunct Professor of Physics, IIT Madras, on July 10, 2021.
3. Participated in Two-day National Seminar on “Reshaping Education during Pandemic”, organized by Vidya Vistar and Gyan Setu Committee of Hansraj College in collaboration with Government College Yachuli, Arunachal Pradesh held on July 13-14, 2021.
4. Participated in Online Lecture organized by Indian Association of Physics Teachers Regional Council (Delhi & Haryana) on “Scaling and Power Laws in Natural Sciences & Beyond”, by Prof. Venkatraman Balakrishnan, Adjunct Professor of Physics, IIT Madras, on July 17, 2021.
5. Participated in One week Interdisciplinary Faculty Development Programme on “Roadmap for building New India with New Education Policy”, held on July 21-25, 2021, organized by IQAC, Hansraj College in Collaboration with MFDC, Hansraj College.
6. Participated in an Awareness session on “Prevention of Sexual Harassment at Workplace”, organized by the Internal Complaints Committee, Hansraj College on Aug. 13, 2021.
7. Participated in a one-day webinar on “Stress Management: Towards Recovery, Resilience & Adaptation, held on Sept. 03, 2021.
8. Attended one day webinar on “Mitigating Global Warming and Climate Change: Need of Hydrogen Energy” organized by Department of Physics and Electronics, Hansraj College in association with IQAC, Hansraj College on Sept. 18, 2021.
9. Participated in Workshop on “Virtual Labs”, held on Oct. 04, 2021, conducted by Department of Physics and Electronics in collaboration with Indian Institute of Technology, Delhi.
10. Participated in the 9th Prof. Ved Ratna Memorial lecture organized by Indian Association of Physics Teachers Regional Council (Delhi & Haryana) on “Gravitational Wave Detectors as our new eyes to probe the Universe”, by Prof. Patrick Das Gupta, Department of Physics & Astrophysics, University of Delhi on Oct. 16, 2021.
11. Participated in Workshop on “Capacity building of Women through Yoga”, held on Nov. 05, 2021, organised by WDC, Hansraj College.
12. Participated in IP Awareness/Training program under National Intellectual Property Rights Awareness Mission organized by Intellectual Property Office, India held on Jan. 12, 2022.

Academic Year: 2020-21

1. Participated in the Webinar on “Boosting Up Your Emotional Immunity”, held on July 03, 2020 under IQAC, Jagannath University, Jaipur.
2. Participated in a One Day National Webinar on, “Opportunities and Challenges of a Paradigm Shift- from Offline to Online Teaching Learning”, organized by Pragati College, Raipur, held on July 04, 2020.
3. Attended One Day National Webinar on “Yoga Tradition and Human Health”, sponsored by Indian Council of Philosophical Research (ICPR) and organized by Jain Vishwa Bharati Institute, Ladnun on July 08, 2020.
4. Attended Three Days National Online Experimental Workshop Simulation in Physics (NEWSP-2020) organized by Indian Association of Physics Teachers-Asian Physics Olympiad Cell (IAPT-APhO Cell) from July 10-12, 2020.
5. Participated in the Webinar on “Student Learning Centre: Objectives and Perspectives”, organized by Student Learning Centre, IQAC, Hansraj College, University of Delhi, held on July 13, 2020.
6. Participated in the National webinar organized by the Department of Physics, SJR College for Women, Bengaluru, Karnataka on “Thermoelectric Nanomaterials for Green Energy Applications” held on July 15, 2020.
7. Participated in Online Lecture jointly organized by Indian Association of Physics Teachers Regional Council (Delhi & Haryana) and Delhi State Science Teachers' Forum on “Electrostatics-I”, by Prof. H. S. Mani on July 18, 2020.
8. Participated in Online Lecture jointly organized by Indian Association of Physics Teachers Regional Council (Delhi & Haryana) and Delhi State Science Teachers' Forum on “Electrostatics-II”, by Prof. H. S. Mani on July 25, 2020.
9. Attended International Webinar on “Frontiers in Experimental Physics (IWFEP-2020)”, organized by the Department of Physics, Farook College (Autonomous), Kerala on Aug. 05-06, 2020.
10. Participated in Online Lecture jointly organized by Indian Association of Physics Teachers Regional Council (Delhi & Haryana) and Delhi State Science Teachers' Forum on “Surprises in Elementary Physics: Examples from Mechanics, Optics and Thermodynamics”, by Prof. Vijay A. Singh on Aug. 6, 2020.
11. Participated in the National Webinar on “Pakistan Occupied Jammu & Kashmir and Walaristan : An Integral Part of Bharat”, on Aug. 13, 2020 organized by the Public Relations Cell, Mahatma Gandhi Central University, Bihar.
12. Participated in the Webinar on “Characterization Techniques for Smart Materials”, on Jan. 15-16, 2021 organized by Department of Physics, College of Basic Sciences and Humanities, CCS Haryana Agricultural University, Hisar, Haryana, India.
13. Participated in Three Days Online National Workshop on “Challenges of Teaching Physics Laboratory Courses in Online Mode”, organized by the Department of Physics under the aegis of IQAC, Kalindi College, in association with Department of Physics and Astrophysics, University of Delhi and the National Academy of Sciences India (NASI), Delhi Chapter on Jan. 23-25, 2021.
14. Participated in Webinar on “Emerging trends in Contemporary Physics”, organized by the Department of Physics, Deshbandhu College, University of Delhi held on Jan. 30 & 31, 2021.
15. Participated in Three Days Online National Workshop on “Programming and Software tools for UG Courses”, organized by the Department of Physics and Electronics, under the aegis of IQAC, Rajdhani College, in association with Department of Physics and Astrophysics, University of Delhi held on Mar. 19-21, 2021.

16. Participated in One day Webinar on “OBE : Examination & Evaluation”, organized by Mahatma Hansraj Faculty Development Centre, Hansraj College, University of Delhi, held on June 22, 2021.
17. Participated in National Webinar on “Energy efficient innovations and applications”, organized by the Department of Physics, Maitreyi College, University of Delhi, held on June 30, 2021.

Academic Year: 2019-20

1. Participated in One Day National Seminar on “Draft New Education Policy, 2019”, held on Aug. 10, 2019 organized by Mahatma Hansraj Faculty Development Centre, Hansraj College, University of Delhi.
2. Participated in Workshop on “Quantum Mechanics and its Applications”, on Sept. 24, 2019 organized by Physics Department, Daulat Ram College, University of Delhi and The National Academy of Sciences, India-Delhi Chapter.
3. Participated in National Leadership Summit “Excellence in Higher Education: Current Challenges and the road ahead”, organized by Mahatma Hansraj Faculty Development Centre, Hansraj College, University of Delhi held on Dec. 06-07, 2019.
4. Participated in the NIUS Teacher Development Workshop on “Thermal Physics & Statistical Mechanics”, held from Dec. 10-13, 2019 at Homi Bhabha Centre for Science Education (TIFR), Mumbai.
5. Participated in the International Conference on “Atomic, Molecular, Optical and Nano Physics with Applications (CAMNP-2019)”, held at Delhi Technological University, Delhi during Dec. 18-20, 2019.
6. Participated in National Seminar on “Laser and Fiber Optics (NSLDFO-2020)”, held on Jan. 07, 2020 organized by Department of Electronics and Department of Physics, Shaheed Rajguru College of Applied Sciences for Women, University of Delhi.
7. Participated in Three Days Faculty Development Programme on “Fundamentals of Intellectual Property Rights”, from Jan 23-25, 2020 organized by Department of Botany and IQAC in collaboration with Mahatma Hansraj Faculty Development Centre, Hansraj College.
8. Participated in Seminar on “Crime against women in conflict areas and areas affected by natural calamities”, organized by Women Development Cell, Hansraj College in collaboration with National Commission for Women (NCW), on Jan 31, 2020 at Hansraj College.
9. Participated in webinar on “Referencing and Citation”, jointly organized by Sri Aurobindo College (Evening) and Ram Lal Anand College, University of Delhi, held on April 20, 2020.
10. Participated in the one-day National Webinar on the theme “Casteless Society to Casteless India: Bhimrao Ambedkar”, held on Apr. 21, 2020” organized by ARSD College, University of Delhi.
11. Participated in National Level Webinar on “NAAC assessment and accreditation”, organized by Kishinchand Chellaram College, Mumbai under the aegis of UGC-PARAMARSH Scheme, held from April 21-25, 2020.
12. Participated in the Webinar on “How to Stay Happy in Uncertainty”, held on Apr. 22, 2020 organized by ARSD College, University of Delhi.
13. Participated in webinar on “Philosophy as a Tool to Success and Happiness in Human Life”, organized by Sri Aurobindo College (Evening), University of Delhi, held on April 22, 2020.
14. Participated in webinar on “Plastic Pollution: Say no to Single Use Plastic”, organized by Sri Aurobindo College (Evening), University of Delhi, held on April 24, 2020.
15. Participated in One Day Webinar on “Teachers and Technology: The Road Ahead”, held on Apr. 25, 2020 organized by Mahatma Hansraj Faculty Development Centre, Hansraj College.

16. Participated in the Webinar on “CRITERIA V: Student support and Progression under revised accreditation framework of NAAC”, organized by IQAC, Bharati College in collaboration with Sri Aurobindo College (Evening), University of Delhi on Apr. 27, 2020.
17. Participated in webinar on “Online Teaching and Learning Technology”, organized by ARSD College, University of Delhi, held on April 27, 2020.
18. Participated in One Day Webinar on “Leadership Role in Uncertain Times”, held on Apr. 30, 2020 organized by Mahatma Hansraj Faculty Development Centre, Hansraj College, University of Delhi.
19. Participated in webinar on topic “COVID19 - Managing Uncertainties”, organized by ARSD College, University of Delhi, held on Apr. 30, 2020.
20. Participated in Webinar on “Challenges to Lifestyle and Mental Health in Covid Era”, organized by Sri Aurobindo College (Evening), University of Delhi, held on May 01, 2020.
21. Participated in Three Days Webinar on “Stress Management during Covid-19 Phase”, from May 01-03, 2020 organized by Mahatma Hansraj Faculty Development Centre, Hansraj College, University of Delhi.
22. Participated in Webinar on “Importance of Infrastructure and Learning Resources in HEI”, jointly organized by Keshav Mahavidyalaya and Sri Aurobindo College (Evening), University of Delhi, held on May 02, 2020.
23. Participated in the one-day Webinar on “Strengthening the Immune System with Naturopathy”, held on May 06, 2020 organized by Department of Botany and IQAC, Hansraj College, University of Delhi.
24. Participated in Three Day Webinar on “Covid 19 : Challenges and Road Ahead”, from May 07-09, 2020 organized by Mahatma Hansraj Faculty Development Centre, Hansraj College, University of Delhi.
25. Participated in Webinar on “Material Science, Technology and Society”, held on May 08-09, 2020, organized by School of Physical Science, Jawaharlal Nehru University, Delhi.
26. Participated in the Webinar “Observing the Wonder World using Fluorescence Spectroscopy and Microscopy”, held on May 11, 2020 organized by the Department of Physics & Electronics and IQAC, Hansraj College, University of Delhi.
27. Participated in Webinar on “What is Light : Evolution of Quantum Theory”, organized by Department of Physics, Kalindi College, University of Delhi, held on May 12, 2020.
28. Participated in Two Day Webinar on “Myths and truths of fitness and corrective exercises for various body deformities”, on May 12-13, 2020 organized by Mahatma Hansraj Faculty Development Centre, Hansraj College.
29. Participated in National Webinar on “Emerging out a Winner in Lockdown”, organized by Department of Physics, Kalindi College, University of Delhi, held on May 14, 2020.
30. Participated in the Webinar on “Occupied Territories of Ladakh”, organized by Shaheed Bhagat Singh Evening College, University of Delhi, held on May 18, 2020.
31. Participated in the webinars on the topics of “Women: The Pivotal Point of Health and Wellness of the Family” & “Yoga and Immunity”, organized by Department of Physical Education, Bharati College on May 18, 2020 & May 20, 2020.
32. Participated in One day webinar on “Quest for Quality: Ranking and Accreditation”, organized by IQAC, Hansraj College, University of Delhi, held on May 23, 2020.
33. Participated in National Webinar on “Geopolitics of Coronavirus Pandemic”, organized by Kamla Nehru College, University of Delhi, held on May 25, 2020.
34. Participated in the National Webinar on “Preventative healthcare diagnostic platforms based on Micro-Nanotechnologies”, organized by Department of Science, Lady Irwin College, University of Delhi, held on May 30, 2020.
35. Participated in the Webinar on “Healthcare Advancement in COVID-19”, held on June 08, 2020 organized by Jagannath University, Jaipur.

36. Participated in Online Lecture jointly organized by Indian Association of Physics Teachers Regional Council (Delhi & Haryana) and Delhi State Science Teachers' Forum on "Light and Einstein", by Prof. Ajoy Ghatak on June 20, 2020.
37. Attended the webinar on "Basic Documentation For Teachers", held on June 22, 2020 organized in collaboration with IQAC, Hansraj College under PARAMARSH, a UGC scheme for mentoring NAAC accreditation aspirant institutions to promote quality assurance in higher education.
38. Participated in Webinar on "Stress Management During Covid-19", held on June 26, 2020 under IQAC, Jagannath University, Jaipur.
39. Participated in Online Lecture jointly organized by Indian Association of Physics Teachers Regional Council (Delhi & Haryana) and Delhi State Science Teachers' Forum on Wave "Wave Optics-I, Interference and Diffraction", by Prof. Rajaram Nityananda on June 27, 2020.
40. Participated in the International webinar on "Emerging Trends in Physics and its Applications in Agriculture", on June 29, 2020, organized by Department of Physics, College of Basic Sciences and Humanities, CCS Haryana Agricultural University, Hisar, Haryana, India.

Academic Year: 2018-19

1. Participated in "Indo-US Colloquium on Recent Developments in Interdisciplinary Research", organized by IQAC, Department of Chemistry, Hansraj College, University of Delhi in association with Loyola University Stritch School of Medicine, USA on July 02, 2018.
2. Attended Physics Exposure Camp under Olympiad Programme from Dec. 03-07, 2018 at Homi Bhabha Centre for Science Education (TIFR), Mumbai.

Academic Year: 2017-18

1. Participated in INSPIRE Programme (DST) held at Hansraj College, University of Delhi, from Dec. 12-16, 2017.

Academic Year: 2016-17

1. Participated in the DBT-sponsored Seminar on "Physics of Stars", held on Apr. 01, 2016 at Department of Physics & Electronics, Hansraj College, University of Delhi.
2. Participated in the DBT-sponsored Faculty Development Workshop on "Advances in Optoelectronics and MATLAB", held on Oct. 04, 2016 at Department of Physics & Electronics, Hansraj College, University of Delhi.
3. Participated in the DBT-sponsored Faculty Development Programme on "Embedded Systems and Synthesis of Nanomaterials", held on Jan. 06-07, 2017 at Department of Physics & Electronics, Hansraj College, University of Delhi.
4. Participated in National Workshop organized by Shyam Lal College, on "Nanotechnology : Emerging Frontiers and Applications", held on Jan. 30-31, 2017.
5. Participated in a seminar on "Technical Terminology & Science Teaching", organized by Commission for Scientific & Technical Terminology, Ministry of Human Resource Development (Department of Higher Education), held on Feb. 22-23, 2017 at Zakir Husain Delhi College, University of Delhi.
6. Participated in a seminar cum workshop on "Quantum Entanglement and the EPR paradox and Computer Interfaced Science Experiments using EXPEYES", held on Mar. 30, 2017 at the Department of Physics & Electronics, Hansraj College, University of Delhi.

7. Participated in a seminar on “Radiation Hazards and Monitoring:- Techniques and Materials”, sponsored by Internal Quality Assurance Cell, Hansraj College and Physics Society Lumen, held on Apr. 10, 2017 at the Department of Physics & Electronics, Hansraj College.

Academic Year: 2015-16

1. Participated in the DBT-sponsored workshop on “Integrating ICT in Teaching and Learning”, held on Dec. 11-18, 2015 at Department of Physics & Electronics, Hansraj College.
2. Participated in a seminar on “Recent Trends in Technical Terminology in Science”, organized by Commission for Scientific and Technical Terminology, Ministry of Human Resource Development (Department of Higher Education), held on Feb. 16-17, 2016 at Sri Aurobindo College, University of Delhi.

Academic Year: 2013-14

1. Participated in a Collaborative Workshop for Undergraduate Physics Teachers: “Active Learning Integrating Hands on Experiments and Multimedia Resources”, organized by D. S. Kothari Centre for Research and Innovation in Science Education, Miranda House, University of Delhi held on Oct. 07-08, 2013.

Academic Year: 2012-13

1. Participated in International Conference on “Light-Cone Physics : Hadronic and Particle Physics”, held at Conference Centre, University of Delhi from Dec. 10 – 15, 2012.

Academic Year: 2009-10

1. Attended ILLI Tier II ICT Workshop for “Capacity Building of Delhi University Faculty”, held at Rajdhani College, University of Delhi from Jan. 11-16, 2010.
2. Participated in the UGC and Sahitya Akademi Sponsored National Seminar, “Lost & Found in Translation: Indian Writers, Translators, Texts and Contexts”, held on Feb. 01-02, 2010.

Academic Year: 2006-07

1. Participated in One Day College Level Program on the occasion National Science Day held at Inter University Accelerator Science Centre, New Delhi on Feb. 28, 2006.

REFRESHER/EQUIVALENT FDP AND ORIENTATION COURSES

1. Attended and completed successfully UGC Sponsored Orientation Programme (OR-69) from December 13, 2011 to January 09, 2012 held at CPDHE-ILLI, University of Delhi.
2. Attended and completed successfully UGC Sponsored Refresher Course in Physics and Electronics, conducted by Centre for Professional Development in Higher Education, University of Delhi from September 20, 2012 to October 11, 2012.
3. Attended and completed successfully UGC Sponsored Refresher Course in Physics conducted by Centre for Professional Development in Higher Education (CPDHE), University of Delhi from CPDHE, University of Delhi from Oct. 13 – Nov. 03, 2016.

4. Participated in one week interdisciplinary Faculty Development Programme on “ICT in education and cyber-security” from July 10-16, 2019 organized by Mahatma Hansraj Faculty Development Centre, Hansraj College, University of Delhi.
5. Participated in one week Faculty Development Programme on “Emerging trends in Research Methodology” from Oct 07-12, 2019 organized by Mata Sundri College, University of Delhi in collaboration with Mahatma Hansraj Faculty Development Centre, Hansraj College, University of Delhi.
6. Participated in one week Faculty Development Programme (Online) on “Moving Towards New Normal with Effective Online Teaching” from Dec 1-7, 2020 organized by Kalindi College, University of Delhi in collaboration with Mahatma Hansraj Faculty Development Centre, Hansraj College, University of Delhi.
7. Participated in one week Faculty Development Programme (Online) on “E-content Generation and Managing Online Teaching” from Dec 11-17, 2020 organized by Aurobindo College (E), University of Delhi in collaboration with Mahatma Hansraj Faculty Development Centre, Hansraj College, University of Delhi.

SPECIAL LECTURES

1. Resource Person in Two day workshop on, “Skill Enhancement Program for the Laboratory Staff”, organised by Department of Physics and Electronics, Hansraj College in collaboration with Mahatma Hansraj Faculty Development Centre, Hansraj College held on June 19 & 20, 2023.
2. Resource Person, “Hands on Training Program for the Laboratory Staff”, Workshop, IQAC and Department of Physics and Electronics, Hansraj College, June 13 & 17, 2019.
3. Resource Person, “DU-Pre-entrance summer school-2018”, ILLL, University of Delhi.
4. Resource Person, “DU-Pre-entrance summer school-2017”, ILLL, University of Delhi.

Bhavana

Ms. Bhavna Vidhani
 (Associate Professor)
 Department of Physics & Electronics, Hansraj College