RESUME



Name : **Dr. Neelkamal**
Husband's Name : Devender Sharma
Date of Birth : 20th April, 1978

Work Address : Dr. Neelkamal (Associate Professor)

Department of Forensic Science,
Maharshi Dayanand University,
Rohtak-124001, Haryana, India
E-mail: neelgenetics@mdurohtak.ac.in

Academic Qualification:

• **Doctor of Philosophy (PhD)** Department of Genetics (Biosciences) Maharshi Dayanand University, Rohtak-124001, Haryana.
• **Master of Science (MSc)** Department of Genetics (Biosciences) Maharshi Dayanand University, Rohtak-124001, Haryana.
• **Bachelor of Science (BSc)** Pandit Neki Ram Sharma Government College Maharshi Dayanand University, Rohtak-124001, Haryana.

Academic Distinctions:

• NET/**JRF** Awarded by CSIR-UGC, in **2003**
• CSIR-UGC **JRF, 2003-05** (Fellowship)
• CSIR-UGC **SRF, 2005-2007** (Fellowship)

PhD Supervision:

Completed:
1. **Vikas Kumar** **TOPIC:** A Wildlife Forensic study on Molecular characterization of Blackbuck (Antilope cervicapra) population of Haryana. Completed: **2018**
2. **Kusum** **TOPIC:** Development and Validation of Age Estimation Statistical tools using Digital Dental Radiographs- A Forensic Study.

Completed: **2020.**
3. Nidhi **TOPIC:** Forensic Study of Cannabis Sativa as a Geographical Indicator Completed: **2023**
4. Preeti **TOPIC:** Soil Characterization from various Regions of Haryana: A Forensic perspective Completed: **2024.**
Ongoing:
1. Priyanka
2. **Jasveer**
3. **Arun**
4. Ghazal
5. Nitin
6. Deepanshi

Projects:

1. **Major Project (2011-2014):** • **Title:** "Characterization of Cytogenetics & Pathology in Prognosis of Acute Lymphocytic Leukemia." • Funding Agency: UGC • Grant: ₹11,39,293
2. **Minor Project (May-Dec, 2019):** • **Title:** "Morphological Characterization of Soil Samples as a Physical Evidence." • Funding Agency: DSW, MDU, Rohtak • Grant: ₹50,000 • Reference No.: DSW/19320, Dated 8/5/19

Life Membership:

• Life Member of Indian Society of Human Genetics (ISHG).
• Life Member of Indian Science Congress Association (ISCA).

Paper Presented in Seminars / Conferences

• Poster paper presentations on "Down syndrome with mosaicism in a girl child" in Indian Science Congress, 3-7 January, 2007.
• Poster paper presentations on "Study of different traits of dermatoglyphics in

normal population" in Indian Science Congress, 3-7 January, 2007.
• Oral presentation on cytogenetics of Down syndrome patients in seminar on Biological Science held by University College, MDU Rohtak, 12-13 March, 2008.
• Presented a paper on Prevalence & maternal age in Down syndrome in National Conference on Medical Biotechnology- Vision 2020, 16-18 April, 2010.
• Oral presentation on "Phenotypic & dysmorphic variability in Down syndrome patients" in National Conference on Multidisciplinary Approach in Frontier Areas of Environmental Science & Engineering, GJU Hissar, 4th-5th March, 2011.
• Presented a paper on "Issues & challenges of forensic science education in India" in a National Conference held by Dept. of IMSAR, MDU Rohtak, 12th March, 2011.
• Oral presentation on "Morphogenetic Variation among Down syndrome patients" in National Seminar on Internet Application in Research, Zoology Dept., MDU Rohtak, 26th March, 2011.
• Poster presentation on "Forensic science research & internet tools" in National Seminar on Internet Application in Research, Zoology Dept., MDU Rohtak, 26th March, 2011.
• Presented a paper on Hematopoietic Stem Cell Malignancy: Acute Leukemias in National Seminar on Scientific Development for Human Welfare: Promises & Concerns, JVMGRR (PG) College, Charkhi Dadri, Bhiwani, 10-11 February, 2012.
• Presented a paper on "Phenotypic Mapping & Cytogenetic Characterization of Down Syndrome Patients from Haryana State" in International Conference on "Gene, Genetics & Genomics: Today & Tomorrow – Human Concern," Punjab University, Chandigarh, 3-5 March, 2012.
• Presented a paper on "A Review on Issues & Challenges in Forensic Biology & Serology" in National Symposium on "Education & Research in Forensic Sciences: Issues & Challenges," Punjabi University, Patiala, 15-16 March, 2012.
• Presented a paper on "Associated Medical Problems for Down Syndrome" in

International Symposium on Developmental & Complex Disorders, BHU, Varanasi, 9-11 December, 2012.
• Presented a paper on "I.Q. levels & phenotypic variability in Down syndrome" in Indian Science Congress, Kolkata, 3-7 January, 2013.
• Presented a paper on Prenatal & Postnatal History in Down syndrome in National Seminar: Next Generation Sciences: Vision 2020 and Beyond, Dept. of Zoology, M.D. University, Rohtak, 8th March, 2014.
• Presented a paper on 'Phenotype & Dermatoglyphics in Down Syndrome' in National Seminar: Innovative Researches in Life Sciences, Dept. of Zoology, M.D. University, Rohtak, 21st February, 2015.
• Presented a paper on 'Introduction to Environmental Forensics' in National Seminar: Today's Vision: Save Ozone, Save Earth, Dept. of Environmental Science, M.D. University, Rohtak, 16th September, 2015.
• Poster presentation on 'Microscopic examination and comparison of hair characterization of some domestic species with selected wild species' in National Conference on 'Genetic Diversity and Therapeutic Potential of Natural Products,' Dept. of Genetics, M.D. University, Rohtak, 17th September, 2016.
• Poster presentation on 'DNA Barcoding & their utility in Biodiversity Conservation' in National Seminar on 'Biodiversity: Status & Significance,' Dept. of Botany, M.D. University, Rohtak, 21st March, 2017.
• Poster presentation on 'Species identification through Forensically Informative Nucleotide (FINS)' in National Seminar on 'Current Scenario in Forensic Investigative Technique,' Dept. of Genetics, M.D. University, Rohtak, 7th September, 2017.
• Oral presentation on 'A Forensic Study for the Identification of Species-Specific DNA Markers as DNA Barcode of the Indian Blackbuck from Haryana' in International Conference on 'Sustainable Agriculture, Energy, Environment & Technology (ICSAEET-2018),' M.D. University, Rohtak, 24th-25th February, 2018.
• Poster presentation in a National Seminar on 'A Forensic Study on Inheritance

and Variability of Handwriting Features Among English Language Writers' in International Seminar on 'Sustainable Environment & Agriculture Under Global Climate Change,' M.D. University, Rohtak, 21st February, 2019.
• Poster presentation on 'Physical Characterization of Soil: A Forensic Study' in International Conference-2019 (CTM-2019), Current Trends in Microbiology and Microbiome Research: A Global Perspective, INSCR & Department of Microbiology, M.D. University, Rohtak, 11th-12th October, 2019.
• Oral presentation on 'A Review on Forensic Microbiology & Public Health Issues' in National Conference on 'Current Understanding of Pathogenesis of Human Diseases,' Dept. of Genetics, M.D. University, Rohtak, 23rd February, 2021.
• Oral Presentation on "Identification of Diatom Genera as a Forensic Tool: Study from a District of Haryana" in National Webinar cum Workshop on "Ethics in Biomedical Research & GCP Guidelines," Human Ethics Committee & Dept. of Zoology, M.D. University, Rohtak, 15th March, 2021.
• Oral Presentation on "Different Methods for the Estimation of Post Mortem Interval: A Forensic Perspective," 17th Annual International Conference of South India Medico-Legal Association, Dept. of Forensic Medicine & Toxicology, AIIMS, Hyderabad, 5th-6th October, 2021.
• Poster presentation on 'Characterization of Soil Samples Using UV-VIS-NIR Diffuse Reflectance Spectroscopy' in National Conference on 'Promoting IPR in University System,' Center for IPR Studies in collaboration with Dept. of Zoology, M.D. University, Rohtak, 3rd June, 2023.
• Oral Presentation on "Age Estimation from Sternum Bone Using Radiograph Technique," International Conference on Engineering, Social Sciences & Management (ICESSM), Dept. of Applied Sciences & Dept. of Computer Applications, Jaipur, 22nd June, 2023.
• Oral Presentation on "GC-MS Analysis of THC Content in Cannabis Sativa Leaves: Geographical & Seasonal Indicators," 15th IASR International Conference on Forensic Science, IASR, 23rd-25th August, 2023.

- Oral Presentation on "Genetic Diversity of Microsatellite Loci of Indian Blackbuck (*Antilope Cervicapra*)." at 5th International Conference on Forensic Science (online), hosted by Sherlock institute of Forensic Science, India. 11th to 13th December, 2024.

List of Publications:

1. **Minakshi Vashist, Neelkamal, and Ritu Yadav.** 2008. "Phenotypic variability and delayed development in Down syndrome patients of Haryana," *Journal of Cytology & Genetics*, 9: 47-53.
2. **Minakshi Vashist, Ritu Yadav, Neelkamal, and Amit Kumar.** 2008. "Evaluation of Digital configuration of mentally retarded patients," *National Journal of Life Sciences*, 5(2), pp. 295-298.
3. **Minakshi Vashist, Neelkamal, Ritu Yadav, and Meena Lal.** 2009. "Trisomy- T (21; 21) with mosaicism in a Down Syndrome girl child: case report," *International Journal of Human Genetics*, 9(2), pp. 105-107. Scopus, WOS.
4. **Minakshi Vashist, Neelkamal, Shivani Kachroo, and Ritu Yadav.** 2009. "ATD angle: A diagnostic tool in Down Syndrome patients," *National Journal of Life Sciences*, 6(1), pp. 93-97.
5. **Minakshi Vashist, Ritu Yadav, Neelkamal, and Amit Kumar.** 2010. "Axial triradius as a preliminary diagnostic tool in patients of mental retardation," *The Internet Journal of Biological Anthropology*, 4(1). ISSN-1939-4594. Scopus.
6. **Minakshi Vashist, Ritu Yadav, Neelkamal, Radha Rathee, Shiksha Sharma.** 2010. "Dermal pattern of Haryana population," *National Journal of Life Sciences*,

7(1), pp. 63-66.

7. **Minakshi Vashist, Ritu Yadav, Neelkamal, and Radha Rathee.** 2011. "Dankmeijer's Index (D.I.) in Mental Retardation," *The Internet Journal of Biological Anthropology*, 4(2). ISSN-1939-4594. Scopus.

8. **Minakshi Vashist, Neelkamal, and Amit Kumar.** 2011. "Does paternal age exist as a risk factor in trisomy 21?" *Biosciences Biotechnology Research Asia*, 8(1), pp. 321-324. ISSN: 0973-1245. Scopus, WOS.

9. **Minakshi Vashist, Amit Kumar, and Neelkamal.** 2011. "Evaluation of prenatal, postnatal & neonatal causes as the risk factors for patients with different I.Q. level of mental retardation," *Biosciences Biotechnology Research Asia*, 8(1), pp. 247-252. ISSN: 0973-1245. Scopus, WOS.

10. **Minakshi Vashist, Shivani Kachroo, Neelkamal, and Ritu Yadav.** 2011. "Improvisation in PCR for amplification of GC-rich sequences (CGG Repeats) in PARAX gene in humans," *International Journal of Biotechnology & Biosciences*, 1(3), July-Sept., pp. 247-252. ISSN: 2231-0304.

11. **Ashok Kumar, Radha Rathee, Minakshi Vashist, Neelkamal, Sunita Singh, and Sumiti Gupta.** 2012. "Acute Lymphocytic Leukemia: An Epidemiological & Hematological study from Haryana," *Biosciences Biotechnology Research Asia*, 9(2), pp. 813-817. ISSN: 0973-1245. Scopus, WOS.

12. **Ashok Kumar, Minakshi Vashist, Radha Rathee, and Neelkamal.** 2012. "Dermatoglyphics in children of acute lymphocytic leukemia from Haryana," *International Journal of Biotechnology and Biosciences*, 2(4), pp. 272-275. ISSN: 2231-0304.

13. **Minakshi Vashist, Neelkamal, Ritu Yadav, Amit Kumar, Shiksha Sharma, and Radha Rathee.** 2012. "Dermatoglyphics – A Diagnostic Tool in Trisomy–21," *J. Applied Biosciences*, 38(2), pp. 146-150. ISSN (Online): 0975-864X.

WOS.

14. **M. Vashist and Neelkamal.** 2013. "Maternal age: a controversial factor in trisomy 21," *Rev Med Int Sindr Down*, 17(1), pp. 8-12. ISSN: 1138-011X.

15. **Neelkamal, Radha Rathee.** Nov 2013. "Acute Lymphoblastic Leukemia: Characterization and its Prognostic Values," *International Journal of Pharma Research & Review*, 2(11), pp. 27-36. ISSN: 2278-6074. IC Value: 5.15, Impact Factor = 3.6.

16. **M. Vashist, Neelkamal, and Kirti Grow.** 2013. "Does any correlation exist between I.Q. levels, Diagnosis Age & Morphological parameters in Down Syndrome patients?" *International Journal of Theoretical & Applied Sciences*, 5(2), pp. 79-83. ISSN No. (Online): 2249-3247.

17. **Radha Rathee, Neelkamal, Ashok Kumar, Minakshi Vashist, Ritu Yadav.** June 2014. "Dermatoglyphic patterns of Acute Leukemia patients," *International Research Journal of Biological Sciences*, 3(6), pp. 90-93. ISSN: 2278-3202. Impact Factor = 1.269.

18. **Neelkamal, Jyoti, and Rinki.** July 2015. "Estimation of sex from footprints using standard footprint length formula, heel ball index & foot index," *Indian Journal of Forensic Medicine & Toxicology*, 9(2), pp. 8-12. ISSN: 0973-9122P & ISSN: 0973-9130E. Scopus.

19. **Neelkamal, Radha Rathee, Minakshi Vashist, Ashok Kumar.** 2015. "Environmental Factors as causative agents for Acute Lymphoblastic Leukemia," *European J. of Biomedical & Pharmaceutical Sciences*, Aug 2015, 3(6), pp. 90-93. ISSN: 2278-3202. Impact Factor = 2.062.

20. **Kumar Vikas and Neelkamal.** 2015. "Wildlife DNA Evidence: Recognition, Collection and Preservation," *Res. J. Forensic Sci.*, 3(7), pp. 8-15. ISSN: 2321–

1792.

21. **Neelkamal, Jyoti, Divya, Jyoti Sharma.** 2015. "Cheiloscopy: A Tool for Sex Identification," *International Journal of Forensic Science & Pathology*, July-December 2015, 9(2), pp. 193-198. ISSN: 0973-9122.

22. **Vikas Kumar, Neelkamal, and Arun Sharma.** 2017. "DNA barcoding as a wildlife forensic tool (WFT) for species identification: a case study on blackbuck (Antilope Cervicapra) in India," *Int. J. Adv. Res.*, 5(6), pp. 1283-1287. ISSN: 2320-5407.

23. **Kusum Singal, Neelkamal.** 2017. "Dental radiology: an adjunctive aid in age estimation," *Annals and Essences of Dentistry*, 9(3), pp. 8c-11c. ISSN: 0976-156X.

24. **Singal K, Sharma N, N Preeti.** 2018. "Usage of Open Access Computer Image Editing Software (Adobe Photoshop) in Forensic Dentistry," *J Forensic Sci & Criminal Invest.*, 7(4). ISSN: 2476-1311, Impact Factor = 0.793.

25. **Kumar V, Sharma N, Sharma A, Verma K, Singal K, Kumar M.** 2018. "A data-based study in support of Blackbuck related cases from Haryana," *Data in Brief*, 7, pp. 1196-1200. ISSN: 2352-3409, Impact Factor = 0.93. Scopus, WOS.

26. **Kumar V, Sharma N, Singal K, Sharma A.** 2018. "A Wildlife Forensic Study for the Species Identification of Indian Blackbuck Through Forensically Informative Nucleotide Sequencing (FINS)," *Biosci Biotech Res Asia*, 15(1). ISSN: 0973-1245, Impact Factor = 0.139. Scopus, WOS.

27. **Sunil Singh, Kusum Singal, Arun Sharma, Neelkamal Sharma.** NDPS Cases in Kangra, Kullu, Una and Hamirpur During 2013-2017- A Retrospective Study, *J Punjab Acad Forensic Med Toxicol*, 2018; 18(2):42-44. ISSN: 0972-5687, Impact Factor= 0.139. Scopus.

28. **Kusum Singal, Neelkamal Sharma, S.C. Narula, Vikas Kumar, Permila Singh.** Age Estimation Using Non-Destructive Approach: A Comparative Forensic Analysis, *Journal of Panjab Academy of Forensic Medicine & Toxicology*, June 2019: 19(1)29-34. ISSN: 0972-5687, Impact Factor= 0.139. Scopus.

29. **Kusum Singal, Neelkamal Sharma, Permila Singh, Vikas Kumar, Neha Punia, Monika Yadav.** Pulp/Tooth Area Method: A Potential Statistical Tool for Age Estimation Using Digital Dental Radiographs, *Indian Journal of Forensic Medicine & Toxicology*, June 2019: 13(2): 228-233. ISSN: 0973-9130, Impact Factor= 0.142. Scopus.

30. **Singal K, Kaidan R, Singh S, Narwal P, Sharma N.** Dental Practitioners: Are They Real Patrons of Forensic Odontology? *J Indian Acad Forensic Med*, 2019 Jan-Mar; 41(1):42-44. ISSN: 0971-0973, Research Impact Factor= 0.05.

31. **Kusum Singal, Neelkamal Sharma, Vikas Kumar, and Permila Singh.** Coronal Pulp Cavity Index as Noble Modality for Age Estimation: A Digital Image Analysis, *Egyptian Journal of Forensic Sciences*, July 2019: 42. ISSN: 2090-5939, Impact Factor= 1.152. Scopus, WOS.

32. **Kusum Singal, Neelkamal Sharma, S.C. Narula, Vikas Kumar, Permila Singh, V.J. Munday.** Evaluation of Age by Kvaal's Modified Measurements (KMM) Using Computer-Aided Imaging Software and Digitized Parameters, *Forensic Science International: Reports*, Aug 2019: 1. ISSN: 2665-9107, Scopus, WOS.

33. **Singal K, Sharma N, Singh P, Kumar V.** Teeth as an Anatomical Modality for Age Estimation Using Radiographic Approach, *J Anat Soc India*, Oct 2019; 68:153-8. ISSN: 0003-2778, Impact Factor= 0.195. Scopus, WOS.

34. **Manju Tobria, Kusum Singal, Vikas Kumar, Neelkamal Sharma, and Permila Singh.** A Forensic Study on Inheritance and Variability of Handwriting Features Amongst English Language Writers, *Journal of Punjab Academy of*

Forensic Medicine and Toxicology, January 2020: 20(2):28-33. ISSN: 0972-5682. Scopus.

35. **Preeti Sangwan, Tarsem Nain, Kusum Singal, Nidhi Hooda, Neelkamal Sharma.** Soil as a Tool of Revelation in Forensic Science: A Review, *Analytical Methods*, Nov 2020; 12(43):5150-5159. Impact Factor= 2.596. Pub Date: 2020-09-25. Scopus, WOS.

36. **Sangwan P, Nain T, Yadav P, Sharma N.** Molecular Approaches in Soil Microbial Analysis-Forensic Perspective, *Biosciences Biotechnology Research Asia*, June 2023, 20(2): 367-379. ISSN: 0973-1245, Impact Factor= 0.139. Scopus, WOS.

37. **Hooda N, Sangwan P, Sharma K, Sharma N.** Pattern of Cannabis Abuse Cases from Himachal Pradesh - A Retrospective Evaluation, *International Journal of Forensic Toxicology & Legal Medicine*, July 2023, 26(1&2): 167-175. ISSN: 0974-4614. Scopus, Google Scholar, ICI.

38. **Preeti Sangwan, Chongtham Nimi, Tarsem Nain, Rajinder Sings, Neelkamal Sharma.** Discrimination of Soil Samples Collected from Haryana (India) Using Non-Destructive ATR-FTIR Spectroscopy Coupled with Multivariate Statistical Analysis, *Indian Journal of Science and Technology*, April 2024, 17(11):1087-1096. ISSN Print: 0974-6846, Electronic: 0974-5645. Web of Science, Scopus/UGC Care Listed.

39. **Priyanka Yadav, Nitin Bishariya, Jasbir Lather, S. Dhattarwal, Neelkamal Sharma, Arun Lohhra.** Assessing the Impact of Corrosive Acids on Human Bone Integrity in Forensic Context, *Forensic Science, Medicine & Pathology*, 22 August 2024. ISSN: 1556-2891, Impact Factor= 1.5, Pub Med. DOI: 10.1007/s12024-024-00861-0, Corpus ID: 271920759, PMID: 39172313. Scopus/UGC Care Listed, WOS.

40. **Nidhi Hooda, Uttam Singh, Neelkamal Sharma, Kapil Sharma, Arun Sharma.**

Forensic Characterization of Tetrahydrocannabinol (THC) in Cannabis Sativa Leaf Specimens from Himachal Pradesh Using GC-MS – A Seasonal and Geographical Study, *Journal of Punjab Academy of Forensic Medicine & Toxicology*. 2024; 24(1), 40-43. ISSN: 0972-5687, DOI: 10.5958/0974-083X.2024.00008.X. Scopus/UGC Care Listed.

41. **Chetna Khanna, Meenakshi Sharma, Dr. Kusum Singal, Dr. Neelkamal Sharma, Dr. Sapna Sharma, Nitin Bishariya**. A morphometric forensic analysis using cranio-facial & odontological indices in stature estimation. *Indian Journal of Forensic Medicine & Toxicolog.* July- September 2025.19 (3):60-68. Print-ISSN:0973-9122 Electronic -ISSN: 0973-9130. Google Scholars/UGC Care Listed.
42. **Hooda N, Singh U, Sharma K, Sharma A.** Analysis of Tetrahydrocannabinol (THC) content in Cannabis sativa leaves collected from different regions of Haryana using GC-MS – A seasonal and geographical study. Journal of Indian Academy of Forensic Medicine. Online ISSN**:** 0974-0848Print ISSN**:** 0971-0973 SCOPUS/UGC Care Listed.
43. Preeti Sangwan, Abhishek Nandal, Tarsem Nain, Neelkamal Sharma, Sapna Sharma, Surender S. Yadav. Discrimination of soil samples using X-ray fluorescence combined with multivariate statistical tools. Vegetos https://doi.org/10.1007/s42535-025-01539-w, Nov., 2025
44. Ravi Tanwar, Sapna Sharma, Parul Sharma, Nisha Verma, Jyotsna Arya, and Neelkamal Sharma. Impact of Burn Intensity on Decomposition Timeline and Entomofaunal Assemblage in Spring Season. *Arab Journal of Forensic Sciences and Forensic Medicine. Dec*,2025; Volume 7 Issue (2), 127-146

No. of Abstracts - 30

Papers in reviewed proceeding of national seminar

- **Neelkamal & Minakshi Vashist.** 2011. "Morphogenetic Variation among Down syndrome patients." In *Proceedings of the National Seminar on Internet*

Application in Research, held on 26th March, 2011 by the Zoology Department, MDU Rohtak. (Published in Nov, 2011), pp. 16-18. ISBN: 978-81-920945-1-9.

- **Neelkamal & Sapna Sharma.** 2011. "Forensic science research & internet tools." In *Proceedings of the National Seminar on Internet Application in Research*, held on 26th March, 2011 by the Zoology Department, MDU Rohtak. (Published in Nov, 2011), pp. 59-60. ISBN: 978-81-920945-1-9.

- **Sapna Sharma, Minakshi Vashist & Neelkamal.** 2011. "Internet as a tool in genetics research." In *Proceedings of the National Seminar on Internet Application in Research*, held on 26th March, 2011 by the Zoology Department, MDU Rohtak. (Published in Nov, 2011), pp. 24-25. ISBN: 978-81-920945-1-9.

- **Neelkamal, Radha Rathee, Minakshi Vashist & Vikas Kumar.** 2015. "Phenotype & Dermatoglyphics in Down syndrome patients." In *Proceedings of the National Seminar on Innovative Researches in Life Science*, held on 21st February, 2015 by the Zoology Department, MDU Rohtak. (Published in Nov, 2015), pp. 115-117. ISBN: 978-81-920945-5-7.

Participate in orientation course:

- **Participated in the VIth Orientation Course** from 13th December 2010 to 1st November 2011 at the Academic Staff College of B.P.S. Mahila Vishwavidyalaya, Khanpur Kalan, Sonepat.

- **Awarded as the Most Punctual Participant** at the VIth Orientation Programme held at B.P.S. Mahila Vishwavidyalaya, Khanpur Kalan, Sonepat (Haryana).

Participation in refresher course:

- **Participation in UGC Sponsored Refresher Course in Life Sciences** from 9th December 2014 to 30th December 2014 at the Center for Professional Development in Higher Education, University of Delhi, New Delhi.

- **Participation in UGC Sponsored Refresher Course in Information Communication Technology (ID)** from 19th November 2016 to 10th December 2016 at the Academic Staff College of B.P.S. Mahila Vishwavidyalaya, Khanpur Kalan, Sonepat.

Participation in Short Term course:

- **Participation in UGC Sponsored Short-Term Course on 'Disaster Management'** from 17th December 2018 to 21st December 2018 at the Academic Staff College, JNU, New Delhi.

- **Attended UGC Sponsored Short-Term Course on 'E-Learning Technologies'** from 18th July 2019 to 24th July 2019 at the FDC, MD University, Rohtak.

- **Participation in One-Week Online Workshop on "Holistic Approach towards Research in Pandemic"** conducted by SHoDH Haryana in collaboration with the Department of Genetics, Maharshi Dayanand University, Rohtak from 27th June to 3rd July 2020.

- **Attended Five-Day Online Gender Sensitization Program on "Gender Equality & Women's Sustainable Development in India: Opportunities & Challenges"** organized by the Women's Studies Centre, Madurai Kamaraj University, Madurai in collaboration with UGC, New Delhi from 31st July to 5th August 2020.

- **Participated in One-Week Online FDP on "Enhancement of Teacher's Skills for Disaster Risk Reduction"** organized by Guru Angad Dev Teaching Learning Centre, SGTB Khalsa College, University of Delhi, International Women's Club, New Delhi, and Aditi Mahavidyalaya, University of Delhi from 16th to 22nd October 2020.

- **Participated in One-Week Online FDP on "Gender Sensitization and Women Empowerment"** from 8th to 13th December 2021, organized by FDC, MD

University, Rohtak, Haryana.

Conference /Seminar Organized:

- **Joint Organizing Secretary** in National Seminar on "Recent Advancement in Application of Genetics," organized by the Department of Genetics on 20th March 2012.
- **Joint Organizing Secretary** of the seminar on "Novel Antimicrobials: An Alternative to Clinical Antibiotics," held on 14th September 2013, Department of Genetics, M.D.U, Rohtak.
- **Joint Organizing Secretary** in National Seminar cum Workshop: "Discovery of New Concepts in Genetics and Molecular Biology," held on 25th October 2013. Organized by the Department of Genetics, M.D. University, Rohtak.
- **Joint Organizing Secretary** in National Conference: "Molecular Pathology of Human Genetic Diseases," held on 23rd August 2014. Organized by the Department of Genetics, M.D. University, Rohtak.
- **Joint Organizing Secretary** in National Conference: "Therapeutic Potential of Natural Products: Current Innovations & Future Trends," held on 19th March 2015. Organized by the Department of Genetics, M.D. University, Rohtak.
- **Organizing Secretary** in National Workshop: "Advanced Aspects of Crime Scene Investigation & Fingerprint Examination," held on 21st November 2015. Organized by the Department of Genetics, M.D. University, Rohtak.
- **Joint Organizing Secretary** in National Conference on "Genetic Diversity and Therapeutic Potential of Natural Products," organized by the Department of Genetics, M.D. University, Rohtak, on 17th September 2016.
- **Joint Organizing Secretary** in One-Day Conference cum Workshop on "Skill Development in Molecular Techniques," organized by the Department of Genetics & M.D. University, Rohtak, on 12th November 2016.
- **Organizing Secretary** in National Seminar: "Current Scenario in Forensic Investigative Techniques," held on 7th September 2017. Organized by the

Department of Genetics, M.D. University, Rohtak.
• **Joint Organizing Secretary** in National Workshop on "DNA Forensics - The Brouhaha or the Science," held on 21st November 2017. Organized by the Department of Genetics, M.D. University, Rohtak.
• **Organizing Secretary** in National Workshop on "Intellectual Property Rights," held on 3rd November 2018. Organized by the Department of Genetics, M.D. University, Rohtak.
• **Joint Organizing Secretary** in National Workshop on "Bioethics in Research: A Need or Compulsion," held on 15th November 2018. Organized by the Department of Genetics, M.D. University, Rohtak.
• **Member of Organizing Team** in One-Week National Workshop on "Research Methodology," organized by the Faculty of Life Sciences, Faculty of Pharmaceutical Sciences, and the Department of Forensic Sciences in collaboration with CRSIS, held from 13th to 17th March 2023.
• **Member of Advisory Committee** in National Science Conclave 2023, held on 27th-28th March 2023.
• **Convenor** in National Workshop on "Understanding Chain of Custody in Forensic Investigation," organized by the Department of Forensic Science, M.D. University, Rohtak on 15th February 2023.
• **Convenor** of Lecture Series organized by the Department of Forensic Science in March 2023.
• **Convenor** of Outreach Program on "Role & Extension of Forensic Science in Society" to orient B.Sc. Students of CDRJM Butana, Sonipat, conducted by the Department of Forensic Science in May 2023.
• **Convenor** of Gender Sensitization Program on "Female Hygiene & Importance of Women's Health," organized by the Department of Forensic Science, M.D. University, Rohtak on 31st May 2023.
• **Convenor** of One-Week National Workshop on "Research Methodology," organized by the Faculty of Life Sciences & Faculty of Interdisciplinary Studies in collaboration with CRSIS, held from 6th to 10th May 2024.

• **Member of Organizing Committee** of One-Week National Workshop on "Research Methodology," organized by the Faculty of Physical Sciences & Faculty of Interdisciplinary Studies in collaboration with CRSIS, held from 28th January to 1st February 2025.
• **Convenor** of National Workshop on "Scientific investigation of Road Traffic Accidents & the Role of Forensic Science" organised by Deptt. of Forensic Science on 03-05-2025
• **Convenor** of One Day National Workshop on "Recent Updates on Ethics in Biomedical, Stem Cell Research &GCP in India, organized on 19.03.2025 by IHEC, MDU Rohtak

Seminars/Conferences/Workshops & Training Courses Attended:

• Attended National Workshop on Towards Facing Challenges of the Mentally Challenged: Their Achievement and Its Alleviation, February 12-13, 2005.
• Attended Training Course on Cytogenetics, NDRI (Deemed University, Dept. of Livestock Genome Analysis Lab), March 2 - 30, 2005.
• Workshop on Patent Awareness, Organized by PIC Hissar in collaboration with TIFAC, December 2005.
• Training on Cytogenetics and FISH Culture, Sir Ganga Ram Hospital, New Delhi, July 5 - 29, 2006.
• Trends in Nanotechnology, Department of Engineering and Technology, MDU, Rohtak, March 27, 2007.
• One Day India-Japan Seminar on "Nanomaterials for Diagnostics and Therapeutics," Organized by Department of Biochemistry, M.D. University, Rohtak, October 30, 2010.
• National Conference on Thermodynamics of Chemical & Biological Systems, Department of Chemistry, MDU, Rohtak, November 3-5, 2011.
• National seminar on "Intellectual Property - Creation and Protection," 23rd April, 2011, Advance Centre of Biotechnology, Dept. of Microbiology, M.D.U, Rohtak.
• National seminar on "Recent advancement in application of Genetics," 20th March, 2012, Genetics Dept., M.D.U, Rohtak.

• International Research Colloquium on Advances in Microbial Biotechnology: Future Prospects (AMBF-2012), organized by Dept. of Microbiology & Association of Microbiologists of India-Rohtak unit, M.D.U, Rohtak, 20th November, 2012.
• International conference on "Next revolution in Genetics & Genomics-Applications in Health & Disease," 27th-29th January, 2013, RML Hospital, New Delhi.
• National seminar on "Novel antimicrobials: An alternative to clinical antibiotics," 14th September, 2013, Genetics Dept., M.D.U, Rohtak.
• National Seminar cum Workshop: Discovery of new concept in Genetics and Molecular Biology, 25th October, 2013, organized by Dept. of Genetics, M.D. University, Rohtak.
• National Seminar: Next generation Sciences: Vision 2020 and beyond, 8th March, 2014, organized by Dept. of Zoology, M.D. University, Rohtak.
• National Conference: Molecular pathology of human Genetic diseases, 23rd August, 2014, organized by Dept. of Genetics, M.D. University, Rohtak.
• National Seminar: Convergence of Biotechnology & Engineering for industry (CBEI-2014), 26th November, 2014, organized by Dept. of Biotechnology, M.D. University, Rohtak.
• International Research Colloquium on Interdisciplinary scope of microbiology: Present status & future directions (IRCISM-2015), organized by Dept. of Microbiology, M.D.U, Rohtak, 31st January, 2015.
• National Conference: Therapeutic potential of natural products: Current innovation & future trends, 19th March, 2015, organized by Dept. of Genetics, M.D. University, Rohtak.
• National Workshop: Advanced aspects of crime scene investigation & fingerprint Examination, 21st November, 2015, organized by Dept. of Genetics, M.D. University, Rohtak.
• Workshop: Women's visibility & space, 11th February, 2016, organized by Women's Studies Centre, M.D. University, Rohtak.

• Workshop: "Save Ozone Layer: Protect Life," Dept. of Environmental Science, M.D. University, Rohtak, 16th September, 2016.
• Attended One Day National Seminar cum Workshop on 'Animal Ethics and Experimentation,' organized by Central Animal House & M.D. University, Rohtak, 22nd October, 2016.
• Workshop: "Coping Health Issues," organized by Women's Studies Centre, M.D. University, Rohtak, 23rd February, 2017.
• Workshop: "All India Survey of Higher Education," organized by AISHE Cell, M.D. University, Rohtak, 17th March, 2017.
• National Conference: Emerging Trends in Biochemistry (ETIB2017), organized by Dept. of Biochemistry, M.D. University, Rohtak, 15th-16th September, 2017.
• National Workshop on 'Intellectual Property Rights,' organized by Department of Genetics, M.D. University, Rohtak, 3rd November, 2018.
• National Workshop on 'Bioethics in Research: A Need or Compulsion,' organized by Department of Genetics, M.D. University, Rohtak, 15th November, 2018.
• Workshop on 'User-Centric Content to Empower Knowledge,' jointly organized by M.D. University, Rohtak & Elsevier, 4th September, 2018.
• National Seminar on "Data Analysis & Interpretation in Scientific Research," organized by Department of Genetics, M.D. University, Rohtak, 9th November, 2019.
• National Webinar cum Workshop on Ethics in Biomedical Research & GCP Guidelines, organized by Human Ethics Committee & Dept. of Zoology, M.D. University, Rohtak, 15th March, 2021.
• National Conference on Natural Products & Human Health: Opportunities & Challenges in Present Scenario, organized under STRIDE Program, M.D. University, Rohtak, 9th-10th April, 2021.
• One Day Workshop on Basic Contours of NEP 2020, organized by IQAC under the aegis of IDP Committee, M.D. University, Rohtak, 9th January,

2023.
• One Day Workshop on Curriculum & Credit Framework for Undergraduate Program, organized by FDC & IQAC, M.D. University, Rohtak, 8th April, 2023.
• One Day National Seminar on Future Universities, organized by IQAC Cell & DSW, M.D. University, Rohtak, 26th September, 2023.
• One Day National Seminar on Training on Ethical Guidelines & Ethics Committee Functioning in Biomedical Health, Stem Cell Research & GCP in India, organized by HEC, ICSCR, Dept. of Forensic Science & Dept. of Genetics, M.D. University, Rohtak, 16th March, 2024.
• One Day Virtual Autopsy Workshop, organized by PGIMS, Rohtak in collaboration with Virtual Autopsy Solutions India & UK, 28th March, 2024.
• One Day National Conference: Human Genetic Disorders: Recent Advancements, organized by Dept. of Genetics, M.D. University, Rohtak, 24th April, 2024.
• One Day Workshop on LOCF-Based Teaching Learning in Context of NEP 2020, organized by FDC_MMTTC & IQAC in collaboration with CCDD, M.D. University, Rohtak, 9th May, 2024.
• Attended Extension Lecture on Physical & Emotional Health Care for Busy Professionals, organized by IQAC & FDC_MMTTC, M.D. University, Rohtak, 24th July, 2024.