


## CURRICULUM VITAE

|                                  |   |   |
|----------------------------------|---|---|
| <b>Name</b>                      | : Mukesh Kumar Thakar   |  |
| <b>Father Name</b>               | : Harbans Lal Thakar  |   |
| <b>Date of Birth</b>             | : 9 <sup>th</sup> November 1964   |   |
| <b>Educational Qualification</b> | : M.Sc., Ph.D. (Forensic Science)   |   |
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| <b>Permanent Address</b>         | : # 319, Phase – III, Urban Estate,<br>Patiala-147002, Punjab, India  |   |
| <b>Retired As</b>                | : Associate Dean Research<br>Punjabi University, Patiala<br>&<br>Professor and Head,<br>Department of Forensic Science,<br>Punjabi University, Patiala – 147002 INDIA<br>Tel.: +91-175-5306271 (Work)<br>+91-8283827790 (Mobile)<br>Fax: +91-175-2282882, 2283073 |   |

### ADMINISTRATIVE EXPERIENCE:

1. Associate Dean Research, Punjabi University, Patiala (10-01-2024 to 31-12-2024)
2. Director, Constituent Colleges, Punjabi University, Patiala (12-01-2023 to 31-01-2023)
3. Head, Department of Forensic Science (2<sup>nd</sup> term: from 12-08-2022 to 31-12-2024)  
(1<sup>st</sup> term: from 12-08-07 to 11-08-2010) The second oldest department India and first of north India offering master and Doctorate in Forensic Science.

### PROFESSIONAL/ADMINISTRATIVE ASSOCIATION DURING SERVICE

- Member of the Syndicate, Punjabi University, Patiala
- Member of the Senate, Punjabi University, Patiala
- Member of the Academic Council, Punjabi University, Patiala

- Member of Subject Expert Committee (SEC) of INSPIRE Fellowship Level-2 Evaluation of 2022, 2023 and 2024 Batch pertaining to Bio-Sciences and Biotechnology, Department of Science and Technology, Ministry of Science and Technology, Govt. of India.
- Member of selection committees (for Junior Scientific officers to Director Level); setting of question papers (for national level and other competitive exams); moderator of question papers; reviewer and evaluator and other confidential work as Advisor/expert for Central Public Service Commissions (UPSC) and Public Service Commission of different states and Universities (Central, states and private) .
- Member of selection committees as an expert and Vice Chancellor Nominee; Member of P.G. board of studies and Research; examiner and evaluator of Ph.D. thesis; Paper setter and evaluator for many states and central universities.
- Observer and Center Superintendent at various National and State level tests.
- Member of many organizing committees in different capacities.
- Chairman and Member of many Seminar/symposium/conference Advisory, organizing and scientific committees.
- Member of Academic Advisory committee of the MHRD, Govt. of India as a subject expert in the subject Law and Legal Studies.
- Honoured with Lifetime Achievement Award at the 15th IASR (International Association of Scientists and Researchers, New Delhi, India) International Conference on Forensic Science held from 23rd to 25th August 2024 at Vallabhbhai Patel Chest Institute, University of Delhi, New Delhi, India.

#### **ACADEMIC WORK EXPERIENCE:**

- Professor in the Department of Forensic Science, Punjabi University, Patiala from 12-08-2010 to 31-12-2024.
- Associate Professor in the Department of Forensic Science, Punjabi University, Patiala from 12-08-2007 to 11-08-2010.
- Reader in the Department of Forensic Science, Punjabi University, Patiala from 12-08-04 to 11-08-2007.
- Lecturer (Senior Scale) in the Department of Forensic Science, Punjabi University, Patiala from 12-08-1999 to 11-08-2004.
- Lecturer in the Department of Forensic Science, Punjabi University, Patiala from 11-08-1995 to 11-08-1999.

**FIELD EXPERIENCE:**

Worked as Scientist Incharge, Field/Mobile laboratory Unit, District Bulandshahr (UP) of Forensic Science Laboratory, UP, Lucknow from May 13, 1991 to August 10, 1995. During this service, major responsibility was to visit the *scene of heinous crimes (CSI)* committed in the district Bulandshahr (Uttar Pradesh state) and help the police in conducting scientific investigation of crime.

**AREAS OF SPECIALIZATION/RESEARCH:**

Forensic Science, Forensic Biology and Serology including DNA Profiling, Criminalistics, Fingerprints and Crime Scene Investigation.

**RESEARCH EXPERIENCE**

- ❖ Worked as a Junior and Senior Research Fellow in the major Research Project entitled **Determination of Sex, Site, Species Origin, ABO Blood Groups and Protein Pattern from hair and elemental Composition** sponsored by University Grants Commission, New Delhi at Department of the Forensic Science, Punjabi University, Patiala from March 28, 1988 to March 27, 1991.
- ❖ Ph.D. (1993) in **Forensic Science** from Punjabi University, Patiala, Thesis entitled **Identification from Hair: A Study of Some Morphological and Serological Characteristics.**
- ❖ Master of Science (1987) in **Forensic Science** from Punjabi University, Patiala in First Division (with specialization in Forensic Biology and Serology) M.Sc. Dissertation entitled **Determination of Blood Groups from Saliva of Paan Chewing Individuals.**

**RESEARCH PUBLICATIONS**

1. **Thakar, M.K.**, and Chattopadhyay, P.K. (1987). Determination of secretor status from saliva stains of paan chewing individuals. *Ind. J. Phys. Anthropol. and Hum Genet.*, 13(3), 233-235.
2. **Thakar, M.K.**, Chahal, K., and Chattopadhyay, P.K. (1989). Inheritance of medulla types. *Proc. 3rd Indo Pacific Congress on Legal Medicine and Forensic Science*, Madras, Sept. 8-12, 168-169.
3. **Thakar, M.K.** (1989). Personal identification from dermal patterns. *Proc. National Meeting of Young Scientist and Research Fellow*. Punjabi University, Patiala.
4. **Thakar, M.K.**, and Chattopadhyay, P.K. (1990). ABO blood groups from hair. *Proc. The First International Symposium on Advance in Legal Medicine*, KANAZAWA, JAPAN, 411-414.
5. **Thakar, M.K.**, and Chattopadhyay, P.K. (1991). Scale pattern of hair – A study from various sites of the human body. *J. Forensic Medicine*, 13(2), 37-38.

6. **Thakar, M.K.**, and Chattopadhyay, P.K. (1997). Determination of sex and enzyme types from a single hair root sheath. *Indian Academy of Forensic Medicine*, 19(1-3), 10-15.
7. Kaur, G. and **Thakar, M.K.** (2000). Medulla types of hair – A study of Brahmin and Rajputs of the Punjab. *J. Human Ecology*, Delhi, 11(6), 483-486.
8. **Thakar, M.K.** (2001). Forensic examination of hair. *Biospectrum*, 3(1, 2), 42-43.
9. Sharma, R., **Thakar, M.K.**, and Jasuja, O.P. (2002). Twins hair – A study of some morphological features. *J. Human Ecology*, Delhi, 13(5), 407-410.
10. Singh, R., **Thakar, M.K.**, and Kumar, L.A. (2002). Identification of nitrites in the gunshot residue (GSR) – Sensitivity of Greiss and modified Greiss reagents: A comparative study. *The Indian Journal of Criminology & Criminalistics*, XXIII (3), 223-233.
11. Singh, R., Kaur, J., and **Thakar, M.K.** (2003). Detection of argemone oil in the adulterated mustard oil by using colour tests and thin layer chromatography. *Anil Aggarwal's Internet Journal of Forensic Medicine and Toxicology*, 5(2).
12. Goyal, P., Sahajpal, V., Singh, R., Goyal, S.P., and **Thakar, M.K.** (2005). Electrophoretic differentiation of protected species based on their sarcoplasmic protein profiles. *Turkish Journal of Forensic Sciences*, 4(3), 23-29.
13. Singh, R., Singh, R., and **Thakar, M.K.** (2005). Drowning associated diatoms. *Indian Internet Journal of Forensic Medicine & Toxicology*, 3(3).
14. Singh, R., Singh, R., Kumar, S., and **Thakar, M.K.** (2006). Forensic analysis of diatoms – A review. *Anil Aggarwal's Internet Journal of Forensic Medicine and Toxicology*, 7(2). Retrieved from [www.geradts.com/~anil](http://www.geradts.com/~anil)
15. Singh, R., Singh, R., and **Thakar, M.K.** (2006a). Extraction methods of diatoms – A review. *Indian Internet Journal of Forensic Medicine and Toxicology*, 4(2).
16. Singh, R., Singh, R., Singh, R., and **Thakar, M.K.** (2006b). Diatomological studies from three water bodies of Jaipur. *Indian Internet Journal of Forensic Medicine and Toxicology*, 4(3). (Print ISSN: 0973–1970).
17. Singh, R., Singh, R., Suman, S., and **Thakar, M.K.** (2006). Thin layer chromatographic analysis of some commonly used poisonous seeds. *The Journal of the Indian Society of Toxicology*, 2(2), 33-35.
18. Singla, A.K., and **Thakar, M.K.** (2006). Establishing the sequence of intersecting ballpoint pen and felt-tipped marker strokes. *Journal of Forensic Identification*, 56(3), 386.
19. Choudhary, S.K., Singh, C.P., and **Thakar, M.K.** (2007). Extended study of pitch-shifted speech by preserving tempo: An external study. *The Internet Journal of Forensic Science*, 2(1).
20. Toofany, M.A., Chandel, R.S., and **Thakar, M.K.** (2007). A study on the diatom flora of various seas of Mauritius. *Proceedings of XVIII All India Forensic Science Conference*, 2007, Kolkata.

21. **Thakar, M.K.**, Singh, R., Singh, R., Shelja, and Kumar, A. (2007). Forensic analysis of some lip cosmetics. *Journal of Forensic Identification*, 57(5), 697-703.
22. Chandel, R.S., **Thakar, M.K.**, Goyal, S.P., and Sahajpal, V. (2008). Forensic hair characterization of six endangered felid species of India. *Journal of Forensic Identification*, 58(3), 317-330.
23. Sahajpal, V., Goyal, S.P., **Thakar, M.K.**, Jayapal, R., and Yoganand, K. (2008). Hair characteristics of four Indian bear species. *Journal of Science & Justice*, 48, 8-15.
24. Sahajpal, V., Jeelani, N., Goyal, S.P., and **Thakar, M.K.** (2008). Electrophoretic characterization of some protected mammal, reptile, and avian species through sarcoplasmic protein profiles. *Turkish Journal of Forensic Sciences*, 7(2), 17-25.
25. **Thakar, M.K.**, and Singh, R.A. (2008). A chapter on 'Diatom'. In *John Wiley Encyclopedia of Forensic Science*. U.K.(f5a625b)-Chapter.
26. **Thakar, M.K.**, Singh, S. Sahota, and Singh, R. (2009). Death due to drowning in Punjab – A survey [2005-2006]. *Medico-Legal Update*, 9(1), 18-22.
27. Sahajpal, V., Goyal, S., **Thakar, M.K.**, and Jayapal, R. (2009). Microscopic hair characteristics of a few bovid species listed under Schedule-I of Wildlife (Protection) Act 1972 of India. *Forensic Science International*, 189, 34-45.
28. **Thakar, M.K.**, Kular, M.K., and Singh, R. (2010). A study of sexual offences in Punjab. *Medico-Legal Update - An International Journal*, 10(2), 45-47.
29. **Thakar, M.K.**, Kular, M.K., and Singh, R. (2010). A study of sexual offences in Punjab. *Medico-Legal Update - An International Journal*, 10(2), 45-47.
30. **Thakar, M.K.**, and Singh, R. (2010). Diatomological mapping of water bodies for the diagnosis of drowning cases. *Journal of Forensic and Legal Medicine*, 17, 18–25.
31. **Thakar, M.K.**, and Singh, R. (2010). Diatomological mapping of water bodies for the diagnosis of drowning cases. *Journal of Forensic and Legal Medicine*, 17, 18–25.
32. Ghosh, T., Kalpana, D., Mukherjee, S., Sharma, A.K., Nath, S., Rathod, V.R., **Thakar, M.K.**, and Jha, G.N. (2011). Genetic diversity of autosomal STRs in eleven populations of India. *Forensic Science International: Genetic*, 5, 259-261.
33. **Thakar, M.K.**, Luthra, D., and Singh, R. (2011). A floristic survey of diatom distribution patterns in some small water bodies (lakes and sarovars). *Journal of Punjab Academy of Forensic Medicine & Toxicology*, 11(2), 81-86.
34. **Thakar, M.K.**, and Kapoor, P. (2012). Forensic examination of bite marks present on different surfaces. *Anil Aggrawal's Internet Journal of Forensic Medicine and Toxicology*. Retrieved from [http://www.anilaggrawal.com/ij/vol\\_014\\_no\\_001/main.html](http://www.anilaggrawal.com/ij/vol_014_no_001/main.html)
35. **Thakar, M.K.**, Khan, H.N., and Kaur, P. (2013). Identification of authorship using lateral palm prints by studying third level details. *Anil Aggrawal's Internet Journal of Forensic Medicine and Toxicology*, 14(1).
36. **Thakar, M.K.** (2013). Cellphone as a tool for combating cybercrime. In *Proceedings of the National Conference on Law and Justice-2013* (pp. 479-486). Auro University, Surat, Gujrat, 14-15th Sept. 2013.

37. Kaur, A., Jain, S.K., and **Thakar, M.K.** (2014). Classification and identification of firearms through gunshot sounds using different techniques – A statistical significance. *CBI Bulletin*, XXI(10-12), 22-32.
38. Devi, R., **Thakar, M.K.**, and Nath, S. (2014). Estimation of humeral length from its fragmentary dimensions. *Human Biology Review*, 3(1), 15-24. (ISSN 2277-4424)
39. **Thakar, M.K.**, and Guleria, P. (2015). Tracking drowning trends in Himachal Pradesh during 2006-2010. *Anil Aggrawal's Internet Journal of Forensic Medicine and Toxicology*, 16(1). Retrieved from [http://anilaggrawal.com/ij/vol\\_016\\_no\\_001/papers/paper004.html](http://anilaggrawal.com/ij/vol_016_no_001/papers/paper004.html). (ISSN 0972-8074)
40. **Thakar, M.K.**, and Sharma, T. (2016). Digital grid method for fingerprint identification and objective report writing. *Springer Nature's Egyptian Journal of Forensic Science*, 6, 194-201. <http://dx.doi.org/10.1016/j.ejfs.2016.05.008>. (ISSN 2090-5939).
41. **Thakar, M.K.**, Sharma, T., and Sahajpal, V. (2017). Illegal trade of medicinal plants approaching wildlife forensics: Indian scenario. *The Indian Police Journal*, 64(1), 130-139. (ISSN 0537-2429).
42. **Thakar, M.K.**, Kaur, P., and Sharma, T. (2018). Validation studies on gender determination from fingerprints with special emphasis on ridge characteristics. *Egypt J Forensic Sci*, 8, 20. <https://doi.org/10.1186/s41935-018-0049-7>
43. **Thakar, M.K.**, Luthra, D., and Khattar, J.S. (2018a). Forensic studies of phytoplankton ecology of two water bodies of Kurukshetra area of Haryana state in India. *Egyptian Journal of Forensic Science*, 8(38), 1-15. (ISSN 2090-5939).
44. **Thakar, M.K.**, Luthra, D., and Khattar, J.S. (2018b). Developing paradigms of drowning deaths in the state of Haryana, India. *The Indian Police Journal*, 65(4), 48-57. (ISSN 0537-2429).
45. Sharma, T., and **Thakar, M.K.** (2018). Evaluation of DNA barcoding methodology and substitution prevailing in “Sandalwood” herbal trade market. *Journal of Forensic Medicine and Toxicology*, 35(2), 37-40.
46. **Thakar, M.K.**, Joshi, B., Shrivastava, P., Raina, A., and Lalwani, S. (2019). An assessment of preserved DNA in decomposed biological materials by using forensic DNA profiling. *Egyptian Journal of Forensic Sciences*, 9(46). <https://doi.org/10.1186/s41935-019-0151-5>
47. Sharma, T., and **Thakar, M.K.** (2019). Microwave-assisted extraction of biological components of *Crocus sativus* with DNA barcoding technology. *International Journal of Pharmaceutical Sciences and Research (IJPSR)*, 10(7), 3482-3486. (E-ISSN: 0975-8232; P-ISSN: 2320-5148).
48. Sahajpal, V., Rajput, S., Sharma, T., Sharma, A., and **Thakar, M.K.** (2019). Development and evaluation of a novel DNA purification buffer and protocol for blood samples on FTA cards. *Forensic Science International: Reports*. <https://doi.org/10.1016/j.fsir.2019.100014>

49. Bhambara, A.K., and **Thakar, M.K.** (2019). Role of dorsal surface of tongue in personal identification: A review. *The Asian Man: An International Journal*, 13(2), 145-149.
50. **Thakar, M.K.**, and Sharma, T. (2020). The utility of DNA barcoding technology in the authentication of medicinal plants in illegal trade: A critical review. *Forensic DNA Typing: Principles, Applications and Advancements*, 405-429.
51. **Thakar, M.K.**, Sahajpal, V., Bhambara, A.K., Bhandari, D., and Sharma, A. (2020). DNA profiling of saliva traces habitually deposited on various documents: A pilot study. *Egyptian Journal of Forensic Sciences*, 10(1), 1-3.
52. Kaur, J., and **Thakar, M.K.** (2021). An alternate novel approach to classify lip prints. *Egyptian Journal of Forensic Sciences*, 11, 40. <https://doi.org/10.1186/s41935-021-00251-5>
53. **Thakar, M.K.**, and Sharma, T. (2021). Identification of CITES-listed *Euphorbia royleana* through DNA barcoding technology: A new facet in wildlife forensics. *Arab Journal of Forensic Sciences & Forensic Medicine*, 3(2), 260-72.
54. Kumari, V., **Thakar, M.K.**, Mondal, B., and Pal, S.K. (2021). Effects of oils, lotions, hand sanitizers, and mehendi on fingerprints captured through digital fingerprint scanner. *Springer Nature's Egyptian Journal of Forensic Sciences*, 8, 11. <https://doi.org/10.1186/s41935-021-00222-w>
55. Kaur, J., and **Thakar, M.K.** (2022). New individual features in lip prints: A potential support for personal identification. *Canadian Society of Forensic Science*, 11, 40. <https://doi.org/10.1080/00085030.2022.2062828>
56. Sahajpal, V., Bhambara, A.K., **Thakar, M.K.**, Sharma, S., Bhandari, D., Thakur, M., Singh, A., Devi, N., and Kumar, A. (2021). Contributed 170 haplotypes on July 5, 2021 belonging to Ramgharia population at YHRD filed under accession number YA005019. Retrieved from <https://yhrd.org/YA005019>
57. Guleria, P., **Thakar, M.K.**, and Goyal, S.P. (2022). Microstructural characterization and elemental profiling of shed feathers of three species of galliformes. *International Journal of Medical Toxicology & Legal Medicine*, 25(3-4), 298-316.
58. Guleria, P., **Thakar, M.K.**, and Goyal, S.P. (2023). Differentiation of Galliformes feather samples for species identification using ATR-FTIR spectroscopy and chemometric techniques: Application in wildlife forensics. *Forensic Science International: Animals and Environments*, 4, 100066.
59. Sharma, T., and **Thakar, M.K.** (2024). Development of standardized methodology for selecting candidate DNA barcodes of *Trillium govanianum* to combat biodiversity crime and environmental exploitation. *Forensic Science International: Animals and Environments*, 5, 100078.

**60. The following DNA Profiles of Animals and Plants (Species Specific), which have been accepted by NCBI/ GenBank (America):**

**Animals of Cat Family during 2007-08 (Links attached):**



\*[EU362126](#) *Panthera uncia*, Cytochrome b gene, partial sequence, Mitochondria

\*[EU362125](#) *Felis chaus*, Cytochrome b gene, partial sequence, Mitochondria

\*[EU362124](#) *Panthera pardus*, Cytochrome b gene, partial sequence, Mitochondria

\*[EU362123](#) *Panthera tigris tigris*, Cytochrome b gene, partial sequence, Mitochondria.

**Animals, during 2007-08 (Links attached):**

<http://www.ncbi.nlm.nih.gov/entrez/viewer.fcgi?db=nucleotide&id=185178688>

<http://www.ncbi.nlm.nih.gov/entrez/viewer.fcgi?db=nucleotide&id=185178687>

<http://www.ncbi.nlm.nih.gov/entrez/viewer.fcgi?db=nucleotide&id=185178689>

<http://www.ncbi.nlm.nih.gov/entrez/viewer.fcgi?db=nucleotide&id=185178690>

<http://www.ncbi.nlm.nih.gov/entrez/viewer.fcgi?db=nucleotide&id=185178691>

**DNA BAR CODES of Plants during 2017:**

**Sharma, T., Sahajpal, V. and Thakar, M.K. (2017): *Achyranthes aspera* internal transcribed spacer 1, partial sequence; 5.8S ribosomal RNA gene, complete sequence; and internal transcribed spacer 2, partial sequence, NCBI GenBank: KY780481.1 by Sharma, T., Sahajpal, V. and Thakar, M.K., TITLE Direct Submission, JOURNAL Submitted (16-MAR-2017) DNA Division, State Forensic Science Laboratory, P.O. Junga, Junga, Himachal Pradesh 171218, India**

( <https://www.ncbi.nlm.nih.gov/nucleotide/KY780481.1>).

**The following GenBank accession numbers have been allotted for plant nucleotide sequences (DNA BARCODES) submitted:**

- BankIt2139217 FIMPT-AA2-RBCL MH765667
- BankIt2139219 FIMPT-AA3-RBCL MH765668
- BankIt2139226 FIMPT-AZ2-RBCL MH765669
- BankIt2139227 FIMPT-AZ3-RBCL MH765670
- BankIt2139256 FIMPT-BK2-RBCL MH765671
- BankIt2139258 FIMPT-BK3-rbcl MH765672
- BankIt2139267 FIMPT-ER2-RBCL MH765673
- BankIt2139268 FIMPT-ER3-RBCL MH765674
- BankIt2139272 FIMPT-FK2-RBCL MH765675
- BankIt2139274 FIMPT-FK3-RBCL MH765676
- BankIt2139289 FIMPT-MI2-RBCL MH765677
- BankIt2139290 FIMPT-MI3-RBCL MH765678
- BankIt2139294 FIMPT-PR2-RBCL MH765679
- BankIt2139295 FIMPT-PR3-RBCL MH765680
- BankIt2139308 FIMPT-EG2-RBCL MH765681
- BankIt2139314 FIMPT-EG3-RBCL MH765682
- BankIt2139329 FIMPT-AR2-RBCL MH765683
- BankIt2139343 FIMPT-AR3-RBCL MH765684
- BankIt2139360 FIMPT-CT2-RBCL MH765685



- BankIt2139364 FIMPT-CT3-RBCL MH765686
- BankIt2139386 FIMPT-TC2-RBCL MH765687
- BankIt2139389 FIMPT-TC3-RBCL MH765688
- BankIt2139397 FIMPT-SA2-RBCL MH765689
- BankIt2139399 FIMPT-SA3-RBCL MH765690
- BankIt2139400 FIMPT-SA2-ITS MH765691

#### RESEARCH GUIDANCE:

| S. No. | Name of the Student       | Title of Thesis   | Status  |
|--------|---------------------------|---|---|
| 1.     | Rajinder Singh Chandel    | <i>Hair characterization of Schedule-I Felids of Indian Wildlife Protection Act (1972) using morphometric, protein and DNA techniques: Implications in Wildlife Forensics</i> | <b>Degree Awarded</b><br><br>In active Collaboration with Wildlife Institute of India, Dehradun (U.K.)    |
| 2.     | Vivek SehajPal            | <i>Forensic hair characterization of Artiodactyls under Schedule-I of Indian Wildlife (Protection) Act-1972 using morphometric, protein and DNA techniques</i>                | <b>Degree Awarded</b><br><br>In active Collaboration with Wildlife Institute of India, Dehradun (U.K.)    |
| 3.     | Rajwinder Singh UGC-SRF   | <i>Forensic Characterization of Diatoms from various water bodies of Punjab</i>   | <b>Degree Awarded</b>   |
| 4.     | Subrat Chaudhary DFSS-SRF | <i>Study of audio and video tape alteration and development of detection technique</i>  | <b>Degree Awarded</b><br><br>in active Collaboration with Central Forensic Science Laboratory, Chandigarh |
| 5.     | Haroon Naem Khan          | <i>Identification From Edgeoscopy and Poroscopy in The Examination of Partial Fingerprints And Their Significance in Crime Investigation</i>                                  | <b>Degree Awarded</b>   |
| 6.     | Aman Deep                 | <i>Study on Sound Patterns of Gunshots</i>  | <b>Degree Awarded</b>   |

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|    | Kaur  | <i>for Characterization of Small Firearms and Creation of Data Bank for Forensic Interpretations.</i>  | in active Collaboration with Central Forensic Science Laboratory, Chandigarh                                    |
| 7  | Renu Devi<br>UGC-SRF                                  | <i>Reconstruction of Bone Length from Bone Fragments</i>   | <b>Degree Awarded</b><br>in active Collaboration with Department of Anthropology, Delhi University, Delhi       |
| 8  | Tina<br>UGC BSR<br>fellowship                         | <i>Forensic Identification of Medicinal Plants in Trade</i>  | <b>Degree Awarded</b><br>UGC-BSR<br>Fellowship<br>Thesis submitted  |
| 9  | Deepali Luthra<br>UGC-SRF                             | <i>Forensic Characterization of Phytoplankton of Selected Water Bodies of Haryana</i>  | <b>Degree Awarded</b><br>(UGC-SRF)  |
| 10 | Bhawna Joshi<br>UGC-JRF                               | <i>Forensic DNA analysis of naturally decomposed biological samples using STR and mini-STR markers</i>   | <b>Degree Awarded</b><br>in Collaboration with AIIMS, New Delhi<br>Pre-submission seminar                       |
| 11 | Preeti Guleria<br>UGC-BSR<br>Fellowship               | <i>Forensic Characterization of Game bird feathers mentioned under (Schedule – I) by using Morphometric and Protein Techniques: Implications in Wildlife Forensics</i> | <b>Degree Awarded</b><br>in active Collaboration with <b>Wildlife Institute of India, Dehradun</b> (U.K.) India |
| 12 | Jagmeet Kaur  | Forensic Studies on Lip Prints   | <b>Degree Awarded</b><br>UGC-NET<br>fellowship  |
| 13 | Lovepreet Kaur<br>UGC BSR<br>fellowship,<br>Completed | Facial Recognition from CCTV Footages Under Different Conditions   | <b>Pre Submission Seminar</b><br>UGC BSR<br>fellowship,   |

|    | Course work           |   | Completed Course work   |
|----|-----------------------|---|---|
| 14 | Amandeep Kaur Bhambra | FORENSIC STUDIES FOR DNA PROFILING ON PAPER SUBSTRATES                                | <b>Degree Awarded</b><br>Selected for fellowship,<br>Completed Course work  |
| 15 | Jaswinder Singh       | Qualitative and Quantitative Analysis of Fingermarks from Two North Indian Population | <b>Registered</b><br>as a<br><b>Teacher Fellow</b> (pre-submission seminar completed)   |
| 16 | Manisha               | Reliability study of Speaker Identification Parameters of Selected Clue Words         | <b>Registered</b><br>in active<br>Collaboration with<br>State Forensic<br>Science Lab, Govt.<br>of NCT, Delhi                       |
| 17 | Tania                 | DEVELOPMENT OF LATENT FINGERPRINTS USING SEMICONDUCTOR NANOSTRUCTURES                 | <b>Registered</b><br>In active<br>collaboration with<br>Dr. Karamjit Singh<br>Associate Professor,<br>Department of<br>Physics, PUP |

#### **PATENTS:**

- Fingerprint Analyzing Instrument for Forensic Purpose, Application No: 399986-001, Indian Patents, Design and Trademark. Granted On 15-01-2024.
- Application Number: 202411011597, “Gum Adhesive Based-Iodine Fuming Technique”, Indian Patents (Filed) 2024 has been published.
- Forensic studies for DNA Profiling on paper substrates, 202411058833 date of filing 03-08-2024, date of publishing 23/08/2024.

#### **CHAPTER CONTRIBUTED TO ENCYCLOPEDIA AND BOOKS:**

1. Contributed one chapter to U.K’s **JOHN WILEY’S ENCYCLOPEDIA of FORENSIC SCIENCE** (*Available both On-line and Physical form*), on “DIATOMS,” which have been published by **John Wiley & Sons Ltd. (U.K.)**.

2. Thakar MK, Joshi B, Shrivastava P. (2020) Usefulness of Mini-STRs in analyzing degraded DNA samples and their forensic relevance, published in Shrivastava, P., Dash, H.R., Lorente, J.A., Imam, J. (Eds.), **Forensic DNA typing: Principles, Applications and Advancements**, by Springer pp205-222 doi 10.1007/978-981-15-6655-4.
3. Thakar MK and Sharma (2020) The Utility of DNA Barcoding Technology in the Authentication of Medicinal Plants in Illegal Trade: A Critical Review, published in Shrivastava, P., Dash, H.R., Lorente, J.A., Imam, J. (Eds.), **Forensic DNA typing: Principles, Applications and Advancements**, by Springer, pp405-429 10.1007/978-981-15-6655-4\_21.
4. **DNA Barcoding and its Potential Applications in Forensic Investigations** has been accepted for publication in a book entitled **Forensic Biotechnology: Basics and Beyond (CRC Press)**.

**CONTRIBUTION TO *E-PG PATHSHALA PROJECT AND ACADEMIC ADVISORY COMMITTEE OF THE MHRD, GOVT. OF INDIA***

- Contributed as a **Paper Coordinator** (in a Paper entitled **General Forensic Science** for the subject of **Forensic Science**), **Reviewer and Content writer** (28 modules) under the ***e-PG Pathshala Project by UGC under the NMEICT mission of MHRD, Govt. of India***
- **As a Content Reviewer**, I have reviewed **modules** under the ***e-PG Pathshala Project by UGC under the NMEICT mission of MHRD, Govt. of India***
- **As a Content writer**, I have written **28 modules** under the ***e-PG Pathshala Project by UGC under the NMEICT mission of MHRD, Govt. of India***

**BOOK REVIEWED (Ministry of Information & Broadcasting, Government of India):**

Reviewed the manuscript entitled **Indian Civilization and the Science of Fingerprinting**, Published, which was offered by the Publication Division, Ministry of Information & Broadcasting, Government of India, New Delhi – 110003 (*vide* Letter no. 1/64/2010 –Ed dated 18-07-2011).

**We have developed a new system of Classification of Lip prints**, and published in Egyptian journal of forensic science. A critical comparison of classification of lip prints with the existing and our new system of classification was presented at the **Annual conference of American Academy of Forensic science (2023) at Orlando, Florida, USA**.

**Organized Following events during the two tenures as Head of the Department and as Professor:**

- Organized National and International Symposia on different aspects of Forensic Science
- Established Cyber Crime Laboratory in the department in 2009 (inaugurated by S. M.S. Gill, DGP Punjab).
- Organized a three-day course on *Cyber and Computer Crime Investigation* for only Gazetted Officers of Punjab Police.
- As a Local Coordinator, organized a three day Regional Workshop on Research as Pedagogy a Science Teacher Education Programme (RAP a STEP) for teachers of undergraduate science courses. The programme was sponsored by MHRD supported Center of Excellence for Science and Maths (COESME) of IISER (Indian Institute of Science and Research), Pune and Department of Biotechnology (DBT), Govt. of India from September 29 to October 1, 2016.
- Organized an “*International Symposium on advances in Fingerprint Identification*” at Department of Forensic science, Punjabi University, Patiala from **February 8-10, 2008**.
- Organized an” *International Symposium on Emerging Trends in Forensic Science*” at Department of Forensic Science, Punjabi University, Patiala from **February 22-24, 2010**.
- As HOD and Chairman, Organized Three Days Course on *Cyber and Computer Crime Investigation* for Gazetted Police Officers at Department of Forensic Science, Punjabi University, Patiala from **July 24-26, 2010**
- As an Organizing Secretary Organized an *International Symposium on Emerging Paradigms in Forensic Science*” at Department of Forensic Science, Punjabi University, Patiala from **March 7-9, 2013**.
- Organized as a member of organizing committee an **International Conference on Questioned Document Examination** at Department of Forensic Science, Punjabi University, Patiala from **Jan 10-12, 2015**.
- Invited as an expert at the ‘**Scientific Investigation in Forensics**’ to deliver invited talk and conducted field training session, organized by the University institute of Bio and Pharma Sciences, Chandigarh University, Gharuan, Mohali, Punjab, India.
- Conducted a one-day workshop ‘**Role of Forensic Science in Administration of Justice**’ as a resource person organized by the department of Law, Punjabi University, Patiala on 02-03-2017.
- **As Chairman, Organized National Conference on Recent Trends and Advancements in Forensic Science (RTAFS- 2023)** at Department of Forensic Science, Punjabi University Patiala, India from **16-18 March 2023**.

- Conducted a one-day workshop on Questioned Document at Punjabi University, Patiala on 11-03-2024.

#### **SESSION CHAIRED/KEYNOTE SPEAKER IN CONFERENCES/SEMINARS**

- Chaired a session during **2<sup>nd</sup> International Conference on Recent Advances in Forensic Sciences, Forensic Medicine & Toxicology** Organized by Indian Association of Medico-Legal Expert (Regd) India from Feb. 20-21, 2011.
- Chaired a session during **International Conference on Environment, Genes, Health and Disease -2011** organized by Human Molecular Genetics Laboratory, Department of Zoology, Bharathiar University, Coimbatore, Tamil Nadu, India from Nov. 9-11, 2011.
- Chaired a session on ‘Culture Conflict and Victimization of Groups’, during **Second International Conference of the South Asian Society of Criminology and Victimology to be held at Manonmaniam Sundarnar University, Abhishekapatti Tirunelveli, Kanyakumari, (T.N.) from 11-13 January, 2013.**
- Presented a Keynote Address and chaired a technical session at National Workshop on Cyber Forensic & Criminal Investigation organized by **Dr. APJ Abdul Kalam Institute of Science & Criminology, Bundhelkhand University, Jhansi, UP, India** from 22-24 February 2018.
- Chaired a session during **National Seminar of Forensic Science: The Art of Decoding Crime** organized by Kerala Law Academy Law College & Centre for Advanced Legal Studies and Research, at Thiruvananthapuram, Kerala, India on 29th July, 2016.
- Chaired a technical session during **National Conference on Future Perspectives of Forensic Science in India - 2017** organized by Dr. Abdul Kalam Institute of Forensic Science and Criminology, Bundhelkhand University, Jhansi (U.P.) India from March 9-10, 2017.
- Chaired a Scientific session on **Personal Identification& Emerging Bottlenecks** during **National Conference on Forensic Science at the Service of Mankind - 2017** organized by Department of Anthropology, Lucknow University, Lucknow (U.P.) India from March 23-24, 2017.
- Chaired a session during **1<sup>st</sup> National Forensic Science Conclave on ‘Role of Universities in Nurturing the Discipline’** organized by Forensic Science Section, Department of Anthropology, University of Delhi, Delhi on February 10, 2018.
- Presented a Keynote address and chaired a technical session in a seven day **National Workshop on "Biometrics and Bone Identification"** organized by Department of Anthropology, University of Lucknow, from 27<sup>th</sup> Jan to 2nd Feb 2018.
- Chaired two technical sessions at **International Conference in Forensic DNA Technology** organized by **Dr. APJ Abdul Kalam Institute of Science & Criminology, Bundhelkhand University, Jhansi, UP, India** from 22-24 February 2018.

- Chaired two technical sessions at **International Conference in Forensic DNA Technology** organised by **Dr. APJ Abdul Kalam Institute of Science & Criminology, Bundelkhand University, Jhansi, UP, India** from 22-24 February, 2019.
- Chaired a Technical session at **2nd International eConference on DNA Forensics**, organized by **International Association of Scientists & Researchers (IASR)** New Delhi, India on February 27-28, 2021.
- Chaired a session at **9th International eConference on Forensic Chemistry & Toxicology**, organized by **International Association of Scientists & Researchers (IASR)** New Delhi, India on September 29-30, 2021.
- 15th IASR (International Association of Scientists and Researchers, New Delhi, India) International Conference on Forensic Science held from 23rd to 25th August 2024 at Vallabhbhai Patel Chest Institute, University of Delhi, New Delhi, India.

#### **PROFESSIONAL WORKSHOP/TRAINING COURSES ATTENDED**

- ◆ Received Training in Physics division of Indian Statistical Institute, Calcutta ‘To determine elasticity from Hair’ for one and half months (Thrice for two weeks each) during the period of 1990-1991 on identification from hair.
- ◆ Received training in “Scientific Investigation of Crime Scene” at Forensic Science Laboratory, U.P., Lucknow, India from May 16, 1991 to August 24, 1991.
- ◆ Received training in analysis of Explosive at Forensic Science Laboratory, U.P., Agra, India from October 4, 1993 to October 10, 1993 and from October 15, 1993 to October 19, 1993.
- ◆ Attended workshop on DNA Finger Printing and its Applications at Guru Nanak Dev University, Amritsar (Pb.) India from February 04-24, 1998.
- ◆ Attended the University Grants Commission sponsored Refresher Course on Criminology and Forensic Science organized by the Department of Forensic Science, Punjabi University, Patiala from March 1-22, 1999.
- ◆ Attended University Grants Commission, New Delhi, sponsored Refresher Course on Criminology and Forensic Science organized by Academic Staff College, Jamia Millia Islamia, New Delhi from June 10 to July 07, 1999.
- ◆ Attended IVth Patent Awareness Workshop organized by Punjab State Council for Science & Technology, Chandigarh, India on November 9, 1999.
- ◆ Attended workshop on Control of Illegal Wild Life Trade in India at Wild Life Institute of India, Dehradun, India from February 23-25, 2000.
- ◆ Attended the University Grants Commission, New Delhi sponsored Refresher Course in Criminology and Forensic Science organized by the Department of Forensic Science, Punjabi University, Patiala from December 11-31, 2001.



- ◆ Attended training course on Legal Issues in Wildlife Management at the Wildlife Institute of India, Dehradun, India from January 21-25, 2002.
- ◆ Attended the University Grants Commission, New Delhi sponsored Refresher Course on Forensic Science organized by the Department of Forensic Science, Punjabi University, Patiala from January 11-31, 2003.

**Lectures/ Keynote Address/ Invited Lecture Delivered:**

- ◆ Delivered number of lectures on ‘Crime Scene Management / Trafficking of women and children/ International Adoption/ Crime Scene Investigation/ Brain Finger Printing /Narco Analysis / Lie Detector/ Chelioscopy/ Technological Advances in Forensic Science to G.O.s; N.G.O.s, of police and Scientific staff at Maharaja Ranjit Singh Punjab Police Academy, Phillaur (2001-2016).
- ◆ Delivered lectures on ‘**Crime Scene Management and Role of DNA in Criminal Investigation**’ to **PCS (Judicial) officers; Session Judges** at Maharaja Ranjit Singh Punjab Police Academy, Phillaur on Sept. 26, 2012, Dec. 4, 2012, and 28-06-2016.
- ◆ Delivered a lecture to the Police Investigating officer (I.Os.) on ‘Hairs/Fibers/Forensic Photography in relation to crime scene investigation’ at Department of Forensic Medicine & Toxicology, Govt. Medical College, Patiala on 8<sup>th</sup> March, 2005.
- ◆ Delivered a lecture to Police and Judicial officers at Training Programme and Workshop for Police and Judicial officers organized by Institute of Forensic Science, Bundhelkhand University, Jhansi from 4-5<sup>th</sup> March, 2006.
- ◆ Delivered a lecture (including practical demonstrations) on ‘*Determination of sex, Blood Groups and Enzyme Types from Hairs and stains of Semen and Vaginal Fluid*’ at ‘Workshop on Forensic Investigation of rape cases’ organized by Amity Institute of Advanced Forensic science Research and Training’ at Noida from October 4-6, 2006.
- ◆ Delivered a lecture on *Wildlife Forensics* on Forensic Day celebration at Amity Institute of Forensic Sciences at Amity University Campus, sector 125, Noida on March 17, 2011.
- ◆ Delivered a lecture on *Wildlife Forensics* to Pot Graduate students at LNJP National Institute of Criminology and Forensic Sciences, Rohini, Delhi 2014.
- ◆ Delivered a lecture on *various aspects of Forensics* at Chandigarh University, Gharuan, near Chandigarh, Punjab.
- ◆ Delivered a lecture to Police (of various states); judicial officers and officers of vigilance Bureau at their Training Programme organized by M.R.S. Punjab Police Academy, Phillaur.
- ◆ Delivered an invited talk at the seminar on Scientific Investigation in Forensics organized by the University Institute of Bio and Pharma Sciences, Chandigarh University, Gharuan, Punjab on 09-02-2015. I have conducted a counseling session for PG students.

- ◆ Delivered a Keynote Speaker National Workshop on Cyber Forensic & Criminal Investigation organized by Institute of Forensic Science and Criminology, Bundhelkhand University, Jhansi (U.P.) India from March 23, 2015.
- ◆ Delivered a series of lectures on Forensic Science at Department of Anthropology, Panjab University, Chandigarh, 2016.
- ◆ Delivered two Extension lectures in the Department of Genetics (Forensic Science Unit), Maharishi Dayanand University, Rohtak on January 20, 2017.
- ◆ Delivered a lecture in UGC sponsored National Workshop on Chemistry-Biology Interface: Opportunities and Challenges organized by Department of Chemistry and Life Sciences, S.D, College (Lahore), Ambala Cantt on 12<sup>th</sup> March, 2016.
- ◆ Delivered a lecture in National Seminar of Forensic Science: The Art of Decoding Crime organized by Kerala Law Academy Law College & Centre for Advanced Legal Studies and Research, at Thiruvananthapuram, Kerala, India on 29th July, 2016.
- ◆ Delivered a Lecture as a Resource Person on the topic “Scientific Aids to Investigation and collection of evidence from scene of crime” at Chandigarh Judicial Academy to Additional District and Sessions Judge under training on 24.10.2016.
- ◆ Delivered a lecture at Asian Institute, Patiala
- ◆ Delivered a lecture as Key Speaker on Role of Botanical Evidences in the investigation of crime at National Conference on Forensic Science at the Service of Mankind - 2017 organized by Department of Anthropology, Lucknow University, Lucknow (U.P.) India from March 23-24, 2017.
- ◆ Presented an invited Talk at International Conference in Forensic DNA Technology organized by Dr. APJ Abdul Kalam Institute of Science & Criminology, Bundhelkhand University, Jhansi, UP, India from 22-24 February, 2018
- ◆ Presented ‘FORENSICON 2019’ A National Conference on “Challenges & Innovations in Criminal Justice System” organized by Dr. Abdul Kalam Institute of Forensic Science and Criminology, Bundhelkhand University, Jhansi (U.P.) India from February 21-22, 2019.
- ◆ Delivered online EXPERT TALK in EXPERT TALK SERIES organized by Sherlock Institute of Forensic Science, Delhi, India on 23-08-2021.
- ◆ The Directorate of Research & Publications (R&P), Rashtriya Raksha University (RRU) has nominated me as a Member of the Board of Studies (BoS) for revising and restructuring the syllabus for the Ph.D. course work.
- ◆ Delivered an expert session during the International Conference on Recent Developments in Forensic Sciences (ICRDFS) 2024 sponsored by DST- SERB at Sandip University, Nasik (Maharashtra) from 18th - 20th July 2024 (ICRDFS-2024).
- ◆ I am RPC committee member at School of Forensic Science, National Forensic Sciences University, Gujarat Campus, Gandhinagar.

- ◆ I am also a member of the State of The Art Seminar (SAS) evaluation of the Ph.D. candidates in Lovely Professional University (LPU).
- ◆ Invited to the Faculty Development Programme as Distinguished Speaker at *Shri Vaishnav Institute of Forensic Science, Shri Vaishnav Vidyapeeth Vishwavidyalaya, Indore (M.P.) INDIA* on the date 07-09-2024.
- ◆ Member of Scientific Committee of 2nd International eConference on DNA Forensics, organized by International Association of Scientists & Researchers (IASR) New Delhi, India on February 27-28, 2021.
  - Member of Scientific Committee of 3rd International eConference on Document Examination organized by International Association of Scientists & Researchers (IASR) New Delhi, India on March 27-28, 2021.
  - Member of Scientific Committee of 4th International eConference on Fingerprint Analysis, organized by International Association of Scientists & Researchers (IASR) New Delhi, India on April 24-25, 2021.
  - Member of Scientific Committee of 5th International eConference on Forensic Odontology, organized by International Association of Scientists & Researchers (IASR) New Delhi, India on May 29-30, 2021.
  - Member of Scientific Committee of 7th International eConference on Forensic Psychology, organized by International Association of Scientists & Researchers (IASR) New Delhi, India on July 24-25, 2021.
  - Member of Scientific Committee of 8th International eConference on Forensic Medicine and Toxicology, organized by International Association of Scientists & Researchers (IASR) New Delhi, India on August 28-29, 2021.
  - Member of Scientific Committee of 9th International eConference on Forensic Chemistry & Toxicology, organized by International Association of Scientists & Researchers (IASR) New Delhi, India on September 29-30, 2021.
  - Member of Scientific Committee of 10th International eConference on Crime Scene Investigation, organized by International Association of Scientists & Researchers (IASR) New Delhi, India on October 30-31, 2021.
  - Member of Scientific Committee of 11th International eConference on Cyber Security, organized by International Association of Scientists & Researchers (IASR) New Delhi, India on November 27-28, 2021.
  - Member of Scientific Committee of 12th International eConference on Forensic Physics, organized by International Association of Scientists & Researchers (IASR) New Delhi, India on December 10-11, 2021.
  - Honored with Lifetime Achievement Award at the 15th IASR (International Association of Scientists and Researchers, New Delhi, India) International Conference on Forensic

Science held from 23rd to 25th August 2024 at Vallabhbhai Patel Chest Institute, University of Delhi, New Delhi, India.

- I was one of the three panel members to conduct a Panel Discussion on the topic CSI: The Intersection of Law, Science, and Justice at 15th IASR International Conference on Forensic Science held from 23rd to 25th August 2024 at Vallabhbhai Patel Chest Institute, University of Delhi, New Delhi, India.
- Member of Scientific Committee 15th IASR (International Association of Scientists and Researchers, New Delhi, India) International Conference on Forensic Science held from 23rd to 25th August 2024 at Vallabhbhai Patel Chest Institute, University of Delhi, New Delhi, India.

### PROFESSIONAL ASSOCIATION

- ❖ Life Member of Indian Academy of Forensic Sciences.
- ❖ Life Member of Indian Academy of Forensic Medicines
- ❖ Annual Member of the Indian Society of Toxicology

### CONFERENCES AND SYMPOSIA ATTENDED

#### International

- 1) Third Indo-Pacific Congress on legal Medicine and Forensic Sciences held at Madras, India from September 8-12, 1989.
- 2) International Symposium on Forensic Science held at Punjabi University, Patiala, India from March 5-7, 1990.
- 3) The 1st National Congress on Forensic Medicine and Sciences organized by Department of Forensic Medicine, Dhaka Medical College, Dhaka, Bangladesh from November, 4-6, 1993.
- 4) SAARC Workshop on Forensic Science organized by Department of Forensic Science, Punjabi University, Patiala, India from October, 4-7, 1995.
- 5) Attended International Symposium on Forensic Science at Punjabi University, Patiala, India, February 13-14, 2002.
- 6) International Symposium on Forensic Science organized by *Amity Institute of Advanced Forensic science Research and Training* at Amity University campus, Noida, Uttar Pradesh from February 22-24, 2006.
- 7) Organized and participated in an **International Symposium on Advances in Fingerprint Identification**, Department of Forensic science, Punjabi University, Patiala from February 8-10, 2008.

- 8) Organized and participated in an International Symposium on Emerging Trends in Forensic Science at Department of Forensic science, Punjabi University, Patiala from February 22-24, 2010.
- 9) 2<sup>nd</sup> International Conference on Recent Advances in Forensic Sciences, Forensic Medicine & Toxicology organized by Indian Association of Medico-Legal Expert (Regd) India from Feb. 20-21, 2011.
- 10) International Conference on Environment, Genes, Health and Disease -2011 organized by Human Molecular Genetics Laboratory, Department of Zoology, Bharathiar University, Coimbatore, Tamil Nadu, India from Nov. 9-11, 2011.
- 11) 64<sup>th</sup> Annual Scientific Meeting of **American Academy of Forensic Science at Atlanta , Georgia, USA** from February 20-25, 2012
- 12) Second International Conference of the South Asian Society of Criminology and Victimology to be held at Manonmaniam Sundarnar University, Abhishekapatti Tirunelveli, Kanyakumari, (T.N.) from 11-13 January, 2013.
- 13) Attended **International Symposium on Emerging Paradigms in Forensic Science** at Department of Forensic Science, Punjabi University, Patiala from **March 7-9, 2013**.
- 14) Attended **4<sup>th</sup> International Science Congress (ISC-2014)** at Udaipur, Rajasthan, India, organized by the International Science Congress Association in collaboration with Pacific University, Udaipur, Rajasthan, India from 8-9<sup>th</sup> December, 2014.
- 15) Attended an **International Conference on Questioned Document Examination** at Department of Forensic Science, Punjabi University, Patiala from **Jan 10-12, 2015**.
- 16) Attended **National Workshop on Cyber Forensic & Criminal Investigation** organized by Institute of Forensic Science and Criminology, Bundhelkhand University, Jhansi (U.P.) India from March 23, 2015.
- 17) Attended **International Finger Print Research Group** at Department of Forensic Science, Punjabi University, Patiala from **Oct 7-9, 2015**.
- 18) Attended **21<sup>st</sup> Triennial Meeting of International Association of Forensic Sciences (IAFS) at Toronto Canada** from **August 21-25, 2017**.
- 19) Attended **International Conference in Forensic DNA Technology** organized by **Dr. APJ Abdul Kalam Institute of Science & Criminology, Bundhelkhand University, Jhansi, UP, India** from 22-24 February, 2018.
- 20) Attended **2<sup>nd</sup> International eConference on DNA Forensics**, organized by **International Association of Scientists & Researchers (IASR)** New Delhi, India on February 27-28, 2021.
- 21) Attended **3<sup>rd</sup> International eConference on Document Examination**, organized by **International Association of Scientists & Researchers (IASR)** New Delhi, India on March 27-28, 2021.

- 22) Attended **4th International eConference on Fingerprint Analysis**, organized by **International Association of Scientists & Researchers (IASR)** New Delhi, India on April 24-25, 2021.
- 23) Attended **5th International eConference on Forensic Odontology**, organized by **International Association of Scientists & Researchers (IASR)** New Delhi, India on May 29-30, 2021.
- 24) Attended **7th International eConference on Forensic Psychology**, organized by **International Association of Scientists & Researchers (IASR)** New Delhi, India on July 24-25, 2021.
- 25) Attended **8th International eConference on Forensic Medicine and Toxicology**, organized by **International Association of Scientists & Researchers (IASR)** New Delhi, India on August 28-29, 2021.
- 26) Attended **9th International eConference on Forensic Chemistry & Toxicology**, organized by **International Association of Scientists & Researchers (IASR)** New Delhi, India on September 29-30, 2021.
- 27) Attended **10th International eConference on Crime Scene Investigation**, organized by **International Association of Scientists & Researchers (IASR)** New Delhi, India on October 30-31, 2021.
- 28) Attended **11th International eConference on Cyber Security**, organized by **International Association of Scientists & Researchers (IASR)** New Delhi, India on November 27-28, 2021.
- 29) Attended **12th International eConference on Forensic Physics**, organized by **International Association of Scientists & Researchers (IASR)** New Delhi, India on December 10-11, 2021.
- 30) Attended **15th IASR International Conference on Forensic Science** to be held from **23rd to 25th August 2024 at Vallabhbai Patel Chest Institute, University of Delhi, New Delhi, India** and was Honoured with **Lifetime Achievement Award**.

**National conferences/workshops:**

- 1) Silver Jubilee celebrations of the **Indian Academy of Forensic Science** at Patiala, India from October, 3-6, 1986.
- 2) 10<sup>th</sup> Annual conference of **Indian Academy of Forensic Medicine** at S.N. Medical College, Agra, India February 4-6, 1988.
- 3) Symposium of **Questioned Documents and Handwriting Examination** at Punjabi University, Patiala, India from April 8-9, 1988.
- 4) XI<sup>th</sup> Annual conference of the **Indian Academy of Forensic Medicine** at M.K.C.G. Medical College, Berhampur, (Orissa) India from February 2-4, 1989.

- 5) National Meeting of Young Scientists and Research fellow on Impact of Science on Human Welfare at Punjabi University, Patiala, India from January 17-19, 1989.
- 6) XII<sup>th</sup> Annual Conference of Indian Academy of Forensic Medicine at Maulana Azad Medical College, Delhi, India from January 19-21<sup>st</sup>, 1990.
- 7) Conference of Indian Academy of Forensic Sciences at Forensic Science Laboratory, U.P. Lucknow, India from July 6-8, 1991.
- 8) 79<sup>th</sup> Session of Indian Science Congress, at S.J.S. University, Baroda, India during January 3-8, 1992.
- 9) XIV<sup>th</sup> Annual conference of Indian Academy of Forensic Medicine, at Medical College, Calcutta, India from January 10-12, 1992.
- 10) 81<sup>st</sup> Session of Indian Science Congress in Rajasthan University, Jaipur, India from January 3-8, 1994.
- 11) XV<sup>th</sup> Annual Conference of Indian Academy of Forensic Medicine, Amritsar, India from February 11-13, 1994.
- 12) XVI<sup>th</sup> Annual Conference of Indian Academy of Forensic Medicine at Salem (Tamil Nadu) India in January 27-29, 1995.
- 13) 83<sup>rd</sup> Session of Indian Science Congress at Punjabi University, Patiala, India from January 3-8, 1996.
- 14) National Symposium on Eco-degradation & Populations Health; "THE CHALLENGES & MANAGEMENT IN NEW MILLENIUM" at Purnia College, Purnia (Bihar) India from April 14-15, 2000.
- 15) XIV All India Forensic Science Conference organized by Bureau of Police Research and Development at Forensic Science Laboratory, Maharashtra, Mumbai from January 6-8, 2003.
- 16) National symposium on Cyber Forensic and Computer crimes organized by Department of Forensic Science, Punjabi University, Patiala from August 11-13, 2006.
- 17) XVIII All India Forensic Science Conference organized by Directorate of Forensic Science, Ministry of Home Affairs, at Kolkata from November 16-18, 2007.
- 18) National Seminar on Emerging Scenario in Forensic Science organized by Institute of Forensic Science and Criminology, Bundhelkhand University, Jhansi from October 23-24, 2009.
- 19) XX All India Forensic Science Conference organized by Directorate of Forensic Science, Ministry of Home Affairs, Govt. of India, New Delhi, Rajasthan Police and State Forensic Science Laboratory, Rajasthan, Jaipur from November 15-17, 2009.
- 20) National Symposium on Challenging Areas in Forensic Science organized by Sri Guru Teg Bahadur Khalsa College, University of Delhi on Feb.5, 2010.



- 21) National Seminar on Ecological Crises organized by Department of Distance Education, Punjabi University, Patiala from September 8-9, 2011.
- 22) Attended National Conference on Biodiversity: Challenges & Issues to be organized by Albert Einstein science Institute in collaboration with North Eastern Hill University, at Women's College, Shillong from 5-6 June, 2014.
- 23) Attended as expert at one day seminar on 'Scientific Investigation in Forensics' to deliver invited talk and conduct field training session, organized by the University institute of Bio and Pharma Sciences, Chandigarh University, Gharuan, Mohali, Punjab, India on 09-02-2015.
- 24) Attended UGC-SAP Seminar on Forensic Toxicology, which was organized by Department Forensic Science, Punjabi University, Patiala on 5<sup>th</sup> Sept., 2015.
- 25) Attended One day National Seminar of Forensic Science: the Art of Decoding Crime organized by Kerala Law Academy Law College & Centre for Advanced Legal Studies and Research, at Thiruvananthapuram, Kerala, India on 29th July, 2016.
- 26) Attended three day Regional Workshop on the topic *Research as Pedagogy a Science Teacher Education programme (RAP a STEP) for teachers of undergraduate science courses. Which was sponsored by MHRD supported Center of Excellence for science and Math (COESME) of IISER (Indian Institute of Science and Research), Pune and Department of Biotechnology (DBT), Govt. of India at Punjabi University, Patiala from September 29 to October 1, 2016.*
- 27) Attended one-day workshop 'Role of Forensic Science in Administration of Justice' as a resource person organized by the department of Law, Punjabi University, Patiala on 02-03-2017.
- 28) Attended National Conference on Future Perspectives of Forensic Science in India - 2017 organized by Dr. Abdul Kalam Institute of Forensic Science and Criminology, Bundhelkhand University, Jhansi (U.P.) India from March 9-10, 2017.
- 29) Attended National Conference on Forensic Science at the Service of Mankind - 2017 organized by Department of Anthropology, Lucknow University, Lucknow (U.P.) India from March 23-24, 2017.
- 30) Attended and Delivered a Keynote address during 1<sup>st</sup> National Forensic Science Conclave on 'Role of Universities in Nurturing the Discipline' organized by Forensic Science Section, Department of Anthropology, University of Delhi, Delhi on February 10, 2018.
- 31) Attended 'FORENSICON 2019' A National Conference on "Challenges & Innovations in Criminal Justice System" organized by Dr. Abdul Kalam Institute of Forensic Science and Criminology, Bundhelkhand University, Jhansi (U.P.) India from February 21-22, 2019.
- 32) Attended and delivered the EXPERT TALK in EXPERT TALK SERIES organized by Sherlock Institute of Forensic Science, Delhi, India on 23-08-2021.

- 33) Attended and delivered an expert session during the International Conference on Recent Developments in Forensic Sciences (ICRDFS) 2024 sponsored by DST-SERB at Sandip University, Nasik (Maharashtra) from 18th - 20th July 2024 (ICRDFS-2024).
- 34) Attended and delivered talk at the Faculty Development Program as Distinguished Speaker at *Shri Vaishnav Institute of Forensic Science, Shri Vaishnav Vidyapeeth Vishwavidyalaya, Indore (M.P.) INDIA* on the date 07-09-2024.

## REFERENCES

### **Dr. P.K. Chattopadhyay,**

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