

# RESUME

## **PURUSHOTTAM SHARMA**

Recipient:- (President Police Medal for Meritorious Service)

**Director (HR Institute of Forensic Science Research and Training), Delhi.**

**Director (Supreme Testing Lab and Forensic Evidence  
Protection Technology Pvt. Ltd) STEP (ISO Certified 9001:2015 and in Collaboration  
with Delhi Technological University {DTU})**

FORENSIC CONSULTANT WITH OVER 40 YEARS OF EXPERIENCE

**Ex-Assistant Director (Sc. Aid):** North Eastern Police Academy, Shillong.

**Ex-Sr. Scientific Officer (Toxicology):** L.N.J.N.-National Institute of Criminology & Forensic Science, Ministry of Home Affairs Govt. of India, Rohini, Sec-3, New Delhi-110085.



<b>Contact</b>	Phone: (M): +91-9212431150, 9599935432 Email ID: psnepa25@gmail.com
<b>Education</b>	M. Sc. (Chemistry) with Specialization  (i) Analysis of Drugs and Pharmaceuticals (II) Analysis Connected with Forensic Chemistry
<b>Experience a. Service</b>	<ul style="list-style-type: none"><li>➤ Asstt. Director (Scientific Aids), North eastern police academy, Umsaw, Group-A:-To teach Criminology and Forensic Science to Dy. SP (P) and cadet SI and lecture in other courses for in-service personnel.</li><li>➤ LNIN-National Institute of Criminology and Forensic Science (Ministry of Home Affairs), Sr. Scientific Officer (Toxicology), Group-A:-To teach forensic chemistry and Toxicology to the student of M.Sc. (F.Sc.) programme and act as course Director for in service training programme for Forensic Scientist &amp; police Officer/Judicial Officers/Prosecuting Officer/Forensic Scientists and Reporting Officers including maintenance of Instrumentation wing of Chemistry Division.</li></ul>
<b>b. Research</b>	<ul style="list-style-type: none"><li>i. Forensic Applications of IR/FTIR, A.K. Jaiswal, N.G. Giri, Anil Kumar Jaiswal, Nilima Samal, P. Sharma, T. Millo, S.K. Gupta, Journal of Forensic Chemistry and Toxicology, Volume 3 Number 1, January - June 2017.</li><li>ii. Paper Entitled Prevention of Chemical Break Down of Alkaline, Phenolphthalein in Trap Cases, in Indian Journal of Criminology and Criminalistics in Jan-June 1988. R.K. Gupta, P. Sharma, Dr. G.J. Mishra, Dr. P.C. Maiti.</li></ul>

- iii. Analysis of Opiates Alkaloids in Pilli Mitte, Published In SAARC Workshop on Forensic Science Oct. 4- 7, 1995, Dept. Of Forensic Science, Punjabi University, Patiala.
- iv. Drug-Dye Complex metric method of extraction for Vecuronium using different type of dyes-Sent for publication in the Journal of Institution of Chemist. (Risha Jasmin Nathan, P.Sharma, Lily Saroj Nathan)
- v. Ion –Pair extraction of a quaternary ammonium Drug Vecuronium from Rat Liver and screening by thin layer Chromatography-sent for publication in the Journal of Institution of Chemist. (Risha Jasmin Nathan, P.Sharma, Lily Saroj Nathan)
- vi. Determination of the Toxic Lead and copper levels in Cosmetic Hair-Dye power by Flame Atomic Absorption Spectrophotometry- accepted for publication in Medico –Legal Update vide no. 2905/MLU/2013. (Risha Jasmin Nathan, P.Sharma, Lily Saroj Nathan)
- vii. Assessment of Drinking water collected from Refugee camp in India for toxic Lead and Copper Level by Flame Atomic Absorptions Spectrophotometry-Accepted for publication inJournal of Medico legal –expert and toxicology- . (Risha Jasmin Nathan,P.Sharma, Lily Saroj Nathan)
- viii. Quantitative Analysis of the amino steroidal muscle Relaxant Vecuronium in Rat Liver and Kidneys using Ion-Pairing and Liquid Chromatography-Tandem Mass Spectrometry-Accepted for publication in News Letter of The Academy of Environmental Biology Journal-. (Risha Jasmin Nathan, P.Sharma, Lily Saroj Nathan)
- ix. viii. Removal of Lead from Drinking water using Banana Peels – Accepted for publication to Journal India academy of Forensic Science (Risha Jasmin Nathan ,P.Sharma, Lily Saroj Nathan)
- x. A Study Based on Somatometric Measurements of Hand and Foot forthe Estimation of Stature of Ramgarhia Sikh Population in Delhi Region, Indian Journal of Research in Anthropology Volume 1 Number 1, July - December 2015, (Harjas Preet Kaur, Mohammad Imran, P. Sharma)
- xi. New Color Test and Solvent Systems for the Identification of Alprazolam Drug in Food and Biological Matrices by Thin Layer Chromatography, Journal of Forensic Chemistry and Toxicology Volume 1 Number 1, July - December 2015, (Mohammad Imran, P. Sharma, Risha Jasmine Nathan Singh)
- xii. Effects of temperature & putrefaction on the analysis of carbofuran & carbaryl insecticides, (P.Sharma& Risha Jasmine Nathan Singh)
- xiii. Vatsal Chopra, Abhijay Pandita, Rushil Bhairak, Mahua Chakraborty, Purushottam Sharma. “Analysis of soil nutrients and their simultaneous effect to human health in terms of toxicity: A pilot study”. International Journal of Forensic Medicine and Toxicological Sciences, July September, 3(3): 50-59, 2018.

<b>Book Published</b>	Three chapters authored in the book, <b>a forensic science guide for crime investigators</b> <b>“Standard operating procedures”</b>
<b>Research Projects</b>	<p>Ever since VII<sup>th</sup> five year plan, I have been associated with formulation of research projects financed by the Department of science and technology in the areas of forensic chemistry, toxicology and biochemistry and other related areas. The project includes drafting of plan proposals with various objects; year wise schedule, target and achievements including its financial aspects, in addition monitoring and evaluation of these projects were also undertaken on regular basis. The title of the project as follows:</p> <p>I) Study of metabolites of drugs and poisons,  II) Application of antigen and antibody technique in forensic toxicology,  III) Chemical and biological study of Lectines.</p>
<b>Scheme Administrator</b>	<p>Under XI<sup>th</sup> five year plan from (2007-2012) for the five year plan project completed and submitted on:</p> <ol style="list-style-type: none"> <li>1. Analysis of various poisons in Biological fluids/tissues, up gradation of Forensic Toxicology Division.</li> <li>2. Creation of computer forensic division in the LNIN NICFS (under XIth five year plan)</li> </ol>
<b>Survey</b>	<ol style="list-style-type: none"> <li>1. Collected sewage water samples from sewage water treatment plants of Delhi for the estimation of DBS by drug dye complexometry under the project.</li> <li>2. Survey of various black printing inks in India for their characterization and individualization.</li> <li>3. Shortage of manpower in forensic science laboratory (Financed by BPR&amp;D).</li> </ol>
<b>Instrumentation</b>	<ol style="list-style-type: none"> <li>1. High performance thin layer chromatography,</li> <li>2. High performance liquid chromatography,</li> <li>3. Gas liquid chromatography,</li> <li>4. GC-MS equipment,</li> <li>5. Photochemical reactor,</li> <li>6. Atomic absorption spectrophotometer,</li> <li>7. Ultraviolet spectrophotometer,</li> <li>8. FTIR spectrophotometer.</li> <li>9. LC-MS/MS</li> </ol>
<b>Training</b> <b>a. Received</b>	<ol style="list-style-type: none"> <li>1. Teachers Training Program (UTTP) from 15/06/2017-28/06/2017, Carlton University, Ottawa, Canada.</li> <li>2. Bio-assay of drugs according to the methods prescribed in Indian pharmacopoeia Central India Pharmacopoeia lab. Ghaziabad from 23/7/84 to 28/7/84.</li> <li>3. Training of trainer course for trainers in customs, excise, police and other drug enforcement organizations. Date of training. And central excise in New Delhi 9/5/88 to 14/5/88.</li> <li>4. Short term course on `Trace analysis for forensic scientists` in CFSL, Hyderabad from 20/3/89 to 23/3/89.</li> </ol>

5. Training program on high performance thin layer chromatography in CFSL, Hyderabad from 26/7/93 to 30/7/93.
6. Analysis of explosions residues and practical demonstration of diffusions of live bomb. FSL, Agra from 25/7/94 to 29/7/94.
7. Analysis of petroleum products as related to forensic science. Indian instt. Of Petroleum, Dehradun from 8/8/94 to 11/8/94.
8. Application of GC-MS technique in the analysis of drugs and poisons. Central drug research instt. Lucknow, from 24/8/94 to 28/8/94.
9. 4<sup>th</sup> course on office automation and PC operation. National crime record bureau, New Delhi 19/5/97 to 30/5/97.
10. Training programme for analysis of oil and fats. Food research and standardization lab., Ghaziabad, from 11/11/97 to 12/11/97.
11. Capsule course on improvised explosive devices. Indo-Tibetan border Police Academy, Mussorie from 20/8/98 to 22/9/98.
12. Workshop on instrumental methods of analysis. Indian instt. Of chemical Technology, Hyderabad, from 16/11/98 to 26/11/98.
13. Course on forensic science aspects of fire and arson investigation. Defense research instt. Of Fire research, Delhi from 18/11/99 to 23/11/99.
14. Fundamental principles and laboratory techniques in chemical analysis of poisons. Indl. Toxicological Research Centre, Lucknow from 6/4/99 to 17/4/99.
15. Introduction to explosives and identification. High energy material research lab, Defense, R&D Organization, Pune from 17/6/99 to 24/6/99.
16. Capsule course on identification and handling of explosives. Indo-Tibetan border Police Academy, Mussorie from 24/6/99 to 27/6/99.
17. Training programme on forensic chemistry and toxicological analysis. FSL, Agra, from 12/7/99 to 16/7/99.
18. Training programme on neutron activation analysis. Indian instt. Of chemical technology, Hyderabad from 11-22/12/2000.
19. Instrumental methods of analysis in forensic science. Do- from 15-19/10/01.
20. Operation of atomic absorption spectrophotometer. Central Instt. Of Plastic Engineers & Technology, Bhubaneswar from 10-12/2/03.
21. Training on identification, testing and quality control of plastic materials. SFSL, Chandigarh from 15-19/3/2004.
22. Training on practical demonstration on explosives and explosion residue analysis. Indo Tibetan Border Police Academy, Mussorie from 27-31/10/2003.
23. Training on liquor analysis SFSL, Ahmadabad from 12/1/2004-16/1/2004.
24. Pre and post blast investigation including legal aspects. CFSL, Hyderabad from 2-4/3/05.
25. 6<sup>th</sup> international seminar on explosives NSG, Manesar from 16-17/2/2006.
26. Course on digital evidence collection Govt. examiner questioned document, Kolkata from 16/2/2006-17/2/2006.
27. Course on criminology: LNIN NICFS, from 24.6.2008 to 28.6.2008.
28. Course on Photometry and calorimetric

	<p>National Physical Laboratory, Delhi from 5.10.09 to 09.10.09</p> <p>29. Course on “DIRECT TRAINER SKILL(DTS)” NATRSS, Delhi from 1.08.2011 to 05.08. 2011</p> <p>30. Laboratory Quality Management System and internal Audit as per IS/ISO/IEC 17025 National Institute of Training for standardization ,NOIDA, from 16-19 July 2013</p> <p>31. Course on Evaluation of Training-National Academy for Training and Research in Social Security from 17-21 Feb.2014</p> <p>32. Training on Triple stage quadrupole quantum Access Max LC_MS/MS System Thermo Fisher Scientific India Pvt. Ltd Mumbai from 14-19 July 2015</p> <p>33. Three days Training Programme on” Intellectual Property Rights and Business” From April 10-12, 2017organized by IP Spectra-an Intellectual Property Facilitation centre for agro based MSME, Zonal Technology Management and business planning and Development ICAR-IARI, New Delhi</p> <p>34. Hands on training on Patent drafting from 18<sup>th</sup>-20<sup>th</sup> July, 2018 at Zonal technology management and business planning and development unit, ICAR, Indian Agricultural research Institute, New Delhi.</p>
<b>b. Imparted/ Training courses conducted</b>	<ol style="list-style-type: none"> <li>1. M.Sc.(F.Sc.) IIInd semester,</li> <li>2. Certificate Course On Explosive And Explosion Residue Analysis,</li> <li>3. Orientation Course on Scientific Investigation of Crime for SI, Inspectors. Of Delhi police.</li> <li>4. Course on preventive forensics i.e. Application of science and technology in the prevention of crime.</li> <li>5. Course on Investigation of road accidents.</li> <li>6. Workshop on Instrumentation Technique in Forensic Science.</li> <li>7. Evaluator for spot evaluation of Answer Script &amp; paper setter of M.Sc. (Forensic Science) of GGSIP University Delhi, since 2004 and supervising the dissertation work of M.Sc. (F.Sc.) IVth semester.</li> </ol>
<b>Teaching/Lectures</b>	<ol style="list-style-type: none"> <li>1. Diploma in forensic toxicology,</li> <li>2. PG Diploma in forensic chemistry &amp; toxicology,</li> <li>3. Certificate course in chromatographic techniques in forensic science.</li> <li>4. Certificate course in forensic chemistry incl. toxicology,</li> <li>5. Certificate course on explosives and explosion residues analysis,</li> <li>6. Workshop on petroleum product adulteration,</li> <li>7. Students of M.Sc.(Forensic Science) Program.</li> </ol> <p>The participants of these courses are scientist nominated from all central and state FSLs possessing minimum M.Sc. degree in chemistry or B.Sc. with five years’ experience. The students regularly attending M.Sc. (Forensic Science) Affiliated with GGSIP University, New Delhi.</p>

## Study Visits

To following laboratories for lecture cum demonstration and attachment, accompanying the officers trainees of above mentioned courses attending different professional courses in the institute : -

1. Central Drug Research Instt., Lucknow,
2. Indl. Toxicological Research Centre, Lucknow,
3. National Chemical Laboratory, Pune,
4. High Energy Material Research Laboratory, Pune,
5. Bhaba Atomic Research Centre, Trombay, Mumbai,
6. Indian Instt. of Petroleum, Dehradun,
7. National Geographical Research Instt., Hyderabad,
8. IIT, New Delhi,
9. IOC Research Centre, Faridabad,
10. National Instt. of Pesticides Formulations & Technology, Gurgaon,
11. Central Cellular & Molecular Biology, Hyderabad,
12. AIIMS, New Delhi,
13. Uni. College of Medical Science, New Delhi.
14. Vimta Lab. Ltd., Hyderabad,
15. Indian National Scientific Documentation Centre, New Delhi,
16. National Information Centre, New Delhi,
17. Govt. Examiner of Questioned Document, Shimla,
18. Terminal Ballistics Research Laboratory, Chandigarh.
19. National Crime Record Bureau, New Delhi,
20. Central Insecticides Laboratory, Faridabad,
21. Prevention and Food Adulteration Laboratory, Delhi,
22. Centre For Biotechnology, Delhi,
23. Fingerprint Bureau, Delhi Police, Delhi,
24. Various C/SFSLs, Delhi,
25. National Security Guard, Manesar,
26. Indian Instt. of Chemical Technology, Hyderabad,
27. Defense Instt. of Fire Research, Delhi,
28. Centre for Explosives and Environmental Safety, Delhi,
29. Indian Pharmacopoeia Laboratory, Ghaziabad,
30. Food Research and Standardization Laboratory, Ghaziabad,
31. BCAS, BDD Unit at IGI Airport,
32. Parliament House, New Delhi,
33. Ammunition Factory, Kirki, Pune.

<b>Membership/ Awards/Honors/ Examiner ships</b>	<ol style="list-style-type: none"> <li>i) Life member of Indian science congress association, Calcutta,</li> <li>ii) Life member of Indian academy of forensic science, Calcutta,</li> <li>iii) Indian association of medico-legal experts, New Delhi,</li> <li>iv) Life member of society of analytical chemist, BARC, Mumbai.</li> <li>v) Life member of Metrology Society of India NPL, New Delhi.</li> </ol> <p>Assisted to Additional Director/Asstt. Director (Chem.) in Various Cases Received For Consultation/Examination from various Govt. Agency Connected to Forensic Chemistry and Toxicology including Explosives.</p> <ol style="list-style-type: none"> <li>1) Identification of Ink on a Document in Smt. Indira Gandhi Murder Case,</li> <li>2) In a Case Registered Under NDPS Case I.E., Seizure made by BSF at International Border for Drug Identification and Quantification,</li> <li>3) Explosions of “HAND GRANADE” stated to be made in China at International Border and Delayed Symptoms of Poisons in Effected Persons,</li> <li>4) Poisoning of Sniffer Dogs of National Security Guard,</li> <li>5) Explosives received from NSG.</li> <li>6) Mass Poisoning of Loom Workers at Bhiwandi, Mumbai,</li> <li>7) Illicit Trade of Ayurvedic Preparations, Orissa,</li> <li>8) Judicial Enquiry from Kerala, in case of Road Accident and Fire,</li> <li>9) Detection and Quantification of Blood Alcohol from Delhi Police,</li> <li>10) Identification of Ink on a Document from UPSC, New Delhi,</li> <li>11) Identification of Ink on a Document from Controller of Examination, Roorkee University,</li> <li>12) Detection of Paper Gum from CISF,</li> <li>13) Assisted in Analysis Post Explosion Residues from various parts of the country received from NBDC, NSG, Manesar and also the establishment of Laboratory, the Photocopy of the order enclosed, please see at Annexure-D,</li> <li>14) Adulteration in Opium by the farmers.</li> <li>15) Testing of paper for surface properties, from central pulp &amp; paper Research Institute, Saharanpur.</li> </ol> <p>B. Expertise acquired during attachment to State/Central Forensic science Laboratory all over India along with Trainees of different course conducted in Chemistry Division</p> <ol style="list-style-type: none"> <li>a. Forensic chemistry (Alcohol intoxication, Liquor, Synthetic drugs, Drugs of Abuse, NDPS, Arson, Petroleum adulteration, Insecticides, Fertilizers, Trap, Adulteration of consumer products, Solvents, Corrosives, etc.),</li> <li>b. Toxicology (Poisons and Poisoning including viscera examination comprising of poisoning due to common and uncommon poisons etc.)</li> <li>c. Explosives -Post Blast residues and chemicals.</li> <li>d. Scene of Crime Examinations in cases related to Poisoning, Bomb Blasts, Murder, Arson etc.</li> </ol>
<b>Administrative Work</b>	<ol style="list-style-type: none"> <li>1. About 31 years’ experience of indenting and procurement of equipments, chemicals and glass wares etc for the laboratory,</li> <li>2. More than 30 years’ experience for assisting in evaluation and selection of suitable highly sophisticated instruments for chemistry laboratory,</li> <li>3. Assisted in establishment of forensic science museum and gallery,</li> <li>4. Assisted in establishment of crime scene room,</li> <li>5. As Administrative Officer –One Year</li> </ol>

## MISCELLANEOUS QUALIFICATION ACQUIRED

1. Studied 1<sup>st</sup> year LLB From Merrut University
2. Studied three Semester of Cost & Work Accountancy from Institute of Cost & Work Accountant, Kolkatta..
3. Attended one & half month certificate Course on entrepreneurship at IIT Roorki, (Step), Roorki.
4. Attended Various Programmes at NIESBUD, Institute under Ministry of Skill Development.
5. Attended National conference on Export packing and UN certification on Hazardous Goods-Testing and labeling of Bulk Containers  
January 13,2017, at the Park hotel, 15 parliament street , New Delhi
6. Conducted two days Training Programme on “Private Investigation” and Fire and Arson Investigation, at NIES BUD, Sec -62, NOIDA under Ministry of Skill India.
7. I attended training on Certificate Programme in Management Consulting (CPMC) from Consultancy Development Centre: An Autonomous Institution of DSIR, Ministry of Science and Technology, Govt. of India, Core IV B, 2<sup>nd</sup>, Floor, India Habitat Centre, Lodi Road, New Delhi - 110 003

## SERVICES/ EXPERTISE AVAILABLE FOR:

1. Poisoning Cases: All types of Viscera Examinations such as Common and uncommon poisons, Metallic &Non metallic poisons, alcoholand other volatile poisons, drug over dosage, Pesticides, Insecticides, Narcotics, Tranquilizers, hydrocarbon and chemical poisoning as well as plant poisons etc.
2. NDPS cases such as opium, charas, ganja, cocaine, Bhang, Synthetic drugs and psychotropic substances.
3. Petroleum adulteration, arson/ fire examination, explosives.
4. Building material like cement, mortar.
5. Restoration of erased numbers.
6. Chemical examination of consumer items.
7. Gunshot residues.
8. Physical matching of tool marks.
9. Blood and other Body Fluids including DNA Profiling.
10. Handwriting, Fingerprints and Questioned Documents.
11. Computer forensics/digital crime.
12. Scene of Crime Examinations.
13. Polygraph Test.
14. Medico legal Report Consultation.

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**Present Assignments:-**

- 1. As Director, HR Institute of Forensic Science Research and Training, Delhi.**
- 2. As Director, Supreme Testing Lab and Forensic Evidence Protection Technology Pvt. Ltd.**
- 3. As Investigating Officer (IO) in Fire/Arson related cases in relation to Industrial and Motor Vehicle Fire since 2005.**
- 4. As guest Faculty at LNJN National Institute of Criminology and forensic Science, New Delhi.**
- 5. As guest Faculty at Amity University, Gurgaon.**
- 6. As training Partner to National Institute of Entrepreneurship and Small Business Development (NIESBUD), Ministry of Skill India, Govt. Of India.**

**We have memorandum of understanding with following insurance companies for Forensic/ Fire/Arson Investigations of Insurance Claims:**

- 1. HDFC ERGO General Insurance Company**
- 2. Tata AIG General Insurance**
- 3. Bharti Axa General Insurance Ltd.**
- 4. Chola MS General Insurance**
- 5. SBI General Insurance.**
- 6. Bajaj Allianz General Insurance**
- 7. National Insurance Corporation Ltd.**
- 8. United India General Insurance**
- 9. The New India Assurance Co. Ltd.**