

## EXHIBITION ORGANIZED

Public awareness program is a inter-phase between the govt. and the people. Public belief in crime investigation based on clues that tell tales and speak language, which is deciphered by the experts, was showcased in the exhibitions organised in pursuance to request from district administration and police department.

The exhibition with the theme **Forensics-in-Action** were organized in 43<sup>rd</sup> HPPSDM (27-29.11.13) Distt. Red Cross Fair (09.11.13) & State level Children Science Congress (20-23.11.13) at Dharamshala.



## TEACHING & TRAINING

Name & Designation	No. lecture / demonstration
Dr. Meenakshi Mahajan, Assistant Director	49
Dr. Neeti Prakash Dubey, Assistant Director	04
Dr. Surender Kumar Pal, Assistant Director	38
Sh. Chaman Lal Sharma, Scientific Officer	05
Sh. Ajay Sehgal, Scientific Officer	25
Sh. Mam Raj Sharma, Scientific Officer	61
Dr. Vijay Kumar, Scientific Officer	17
Sh. Rajesh Kumar Jamwal, Scientific Assistant	26
Sh. Jaswant Singh, Scientific Assistant	11
Sh. Rajat Chaudhary, Scientific Assistant	02

### TRAINING ATTENDED

Name	Course
Dr. Meenakshi Mahajan	<ul style="list-style-type: none"> <li>• E-governance under National e-governance plan organized by DIT/ HP Govt. at Shimla on 09-11.09.13.</li> <li>• Hands on training on Forensic XP 4010D at RFSL, NR on 28.02- 02.03.14.</li> </ul>
Dr. Surender Kumar Pal	<ul style="list-style-type: none"> <li>• Right to Information Act-2005, Regional Training Centre (HIPA), Dharamshala on 8-9.01.14.</li> </ul>
Sh. Mam Raj	<ul style="list-style-type: none"> <li>• Right to Information Act-2005, Regional Training Centre (HIPA), Dharamshala on 8-9.01.14.</li> <li>• Hands on training on Forensic XP 4010D at RFSL, NR on 28.02-02.03.14.</li> </ul>
Sh. Ajay Rana	<ul style="list-style-type: none"> <li>• Basic Computer Course, Regional Training Centre (HIPA), Dharamshala on 20-24.01.14.</li> </ul>
Sh. Upender	<ul style="list-style-type: none"> <li>• Basic Computer Course, Regional Training Centre (HIPA), Dharamshala on 23- 27.09.13.</li> <li>• Hands on training on Forensic XP 4010D at RFSL, NR on 28.02-02.03.14.</li> </ul>

## COURSE ORGANIZED

In pursuance to Himachal Pradesh Police Act, 2007, to enhance professionalism in crime investigation amongst Investigating Officers of the Northern Range, the Police Head quarters allotted two training courses of two weeks duration. The trainees were delivered theory lectures and imparted practical trainings. On completion of training, the trainees appeared in a written test and the result was communicated to the Police Headquarters.

Course	Number
• Training programme on Forensic Science for the investigating officers of northern range on 15-27.7.13.	21
• Training programme on Forensic Science for the investigating officers of northern range on 03-15.03.14.	15
<b>Total</b>	<b>36</b>

### INTERNSHIP

Title	Number
• Students of M.Sc. Forensic Science, Department of Forensic Science, SHIATS, Allahabad on 05- 07.06.13.	15
• Students of M.Sc. School of Earth and Environment Sciences, Central University, HP on 25.06-25.07.13.	08
• Students of P.G. Diploma Forensic Science, Khalsa College, Delhi University on 07-11.10.13.	02
• Students of P.G. Diploma Forensic Science, Khalsa College, Delhi University on 16- 20.12.2013.	16
• Students of M.Sc. Forensic Science, Punjabi University, Patiala on 04.10.13.	20
• Students of M.Sc. Forensic Science, Maharaja Agrasen University, Baddi on 02- 06.01.14.	08
• Students of M.Sc. Forensic Science, Kurukshetra University, Kurukshetra on 23.01- 31.03.2014.	02
• Students of B.Tech Biotechnology, Shoolini University, Solan on 03-29.03.2014.	02
<b>Total</b>	<b>83</b>

**CONFERENCE/SEMINAR/WORKSHOP/SYMPOSIUM ATTENDED**

Name	Remarks
Dr. Arun Sharma	<ul style="list-style-type: none"> <li>• Combined DNA Index System (CODIS) by FBI specialist at US Embassy, New Delhi on 19.9.13.</li> </ul>
Dr. Meenakshi Mahajan & Sh. Man Raj	<ul style="list-style-type: none"> <li>• Demonstration on mobile phone examination on the equipment XRY at State FSL HP on 7-8.07.13.</li> </ul>
Dr. Surender Kumar Pal	<ul style="list-style-type: none"> <li>• Workshop on Right to Information Act-2005 at Regional Training Centre (HIPA), Dharamshala on 23.11.13.</li> </ul>
Sh. Vijay Kumar	<ul style="list-style-type: none"> <li>• Workshop on Integrated Criminal Justice System at Delhi on 01.02.14.</li> </ul>

**SESSION CHAIRED/RADIO TALK/TV TALK**

Name & Designation	Activity
Dr. Arun Sharma, Dy. Director	<ul style="list-style-type: none"> <li>• Talk on Forensic Science and Environment to the teacher trainees in First Summer School on environment Sciences at Academic Staff College, HPU, Shimla on 13.6.13</li> <li>• Talk on : Forensic Science in the Service of Mankind &amp; DNA Profiling in Forensics at workshop for lawyers at Mandi on 23.11.13.</li> <li>• Talk on DNA profiling and sampling under CME programme to medical officers at Bilaspur on 30.11.13.</li> </ul>
Dr. Meenakshi Mahajan, Asstt. Director	<ul style="list-style-type: none"> <li>• Radio talk on Cyber Crime at AIR, Dharamshala.</li> <li>• Talk on Cyber Crime at workshop for lawyers at Mandi on 23.11.13.</li> <li>• Talk on communication skill in scientific matters at conference Hall, SP office, Dharamshala on 18.07.13.</li> </ul>

## DIGNITARY

Visitor(s)	Date
Sh. Virbhadra Singh, Hon'ble Chief Minister, H.P.	29.10.13
Sh. Sudhir Sharma, Hon'ble Cabinet Minister, H.P.	29.10.13
Sh. P. Mitra, IAS, Addl. Chief Secretary ( Home & Vigilance) HP	24.01.14
Sh. Sanjay Kumar, IPS, DGP, HP	28.10.13
Sh. G.S. Chambial, IAS (Retd.)	29.10.13
Dr. O.P. Jasuja, Professor (Forensic Science ), PU Patiala	04.10.13
Dr. Amit Chattree, Associate Professor (Forensic Science), SHIATS, Allahabad	07.06.13
Dr. Vaibhav Saran, Asstt. Professor(Forensic Science), SHIATS, Allahabad	07.06.13
Dr. R.S Chandel, Asstt. Professor(Forensic Science ), PU Patiala	04.10.13
Dr. Kanudeep Kaur, Asstt. Professor, SGBT, Khalsa College, Delhi	17.12.13
Sh. B. Darshan, Asstt. Director, FSL Uttrakhand	07.03.14



# RFSL, CR, MANDI

## INTRODUCTION

Mandi formerly known as Mandav Nagar which remained capital of erstwhile princely state of Mandi is situated on the bank of river Beas. Mandi town is the head-quarter of Mandi district and Zonal Head Quarter of Central Zone. There are more than 300 old and new temples at Mandi also known as “Chotti Kashi”.

In the first meeting of the Himachal Pradesh Forensic Science Development Board, the Government created Regional Forensic Science Laboratory, Central Range, Mandi to cover central range districts for quick and timely availability of the scientific reports in crime investigations. Initially in the year 2008 the RFSL, CR Mandi was temporarily housed in a rented accommodation at Gutkar at NH-21. The RFSL moved to its own new complex in March, 2013. The complex has an area of about 10,000 square feet and constructed as per passive solar principles. The RFSL Mandi is catering to the needs of five districts viz. Mandi, Kullu, Lahaul & Spiti, Bilaspur, Hamirpur. There are three specialties viz. Biological Sciences, Physical Sciences and Chemical Sciences.

*Push SMS service* has been introduced in the laboratory to expedite working. *e-granthalya* software for the management of libraries is being introduced.

## WORKING

There are three scientific divisions:

Biological Sciences (Biology & Serology division)

Chemical Sciences (Chemistry & Toxicology Division)

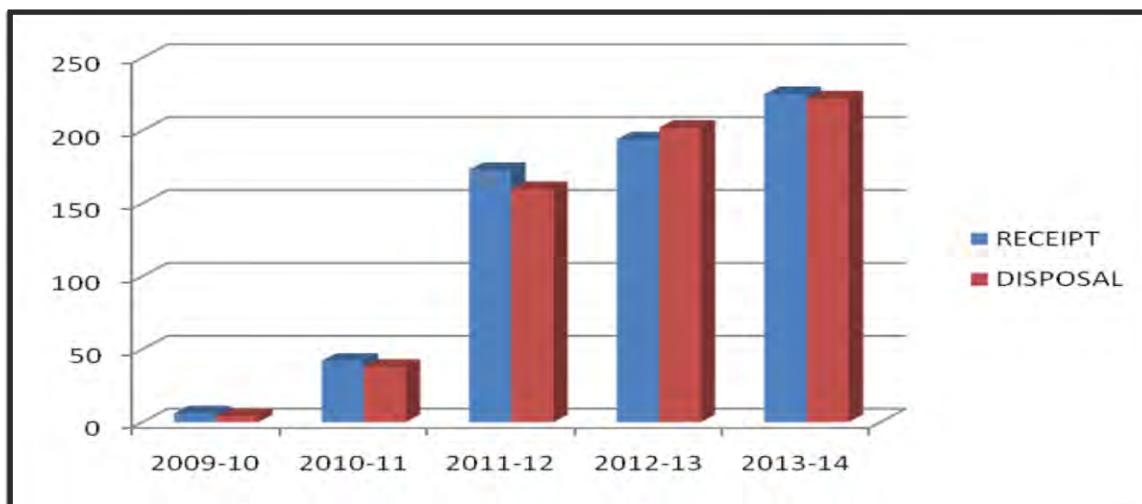
Physical Science (Physics & Ballistics Division)

## BIOLOGY & SEROLOGY DIVISION

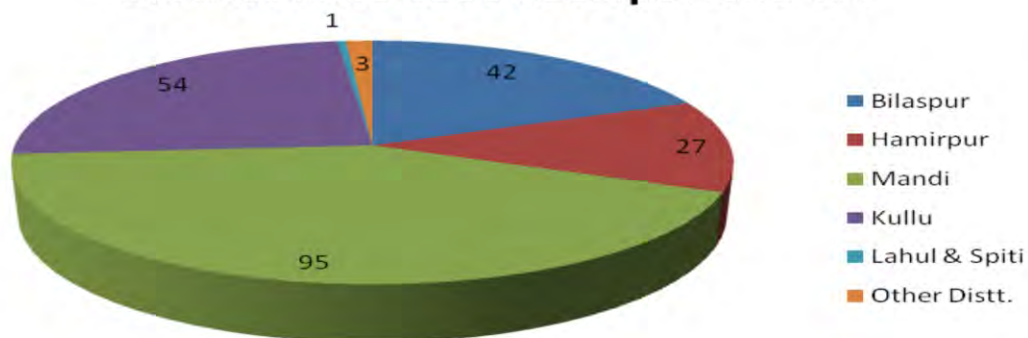
This division is functioning since 2009 and undertakes examination of the following types of evidentiary clues in different crime cases for identification and comparison:

- Blood, semen & saliva
- Diatom
- Vomit & faecal matter
- Charred bone, tissue & skin
- Bone (animal & human)
- Hair (animal & human), fibre, feather
- Wildlife cases (flora & fauna)
- Wood & plant product
- Maggot

### CASE STATISTICS



### District wise case receipt 2013-14

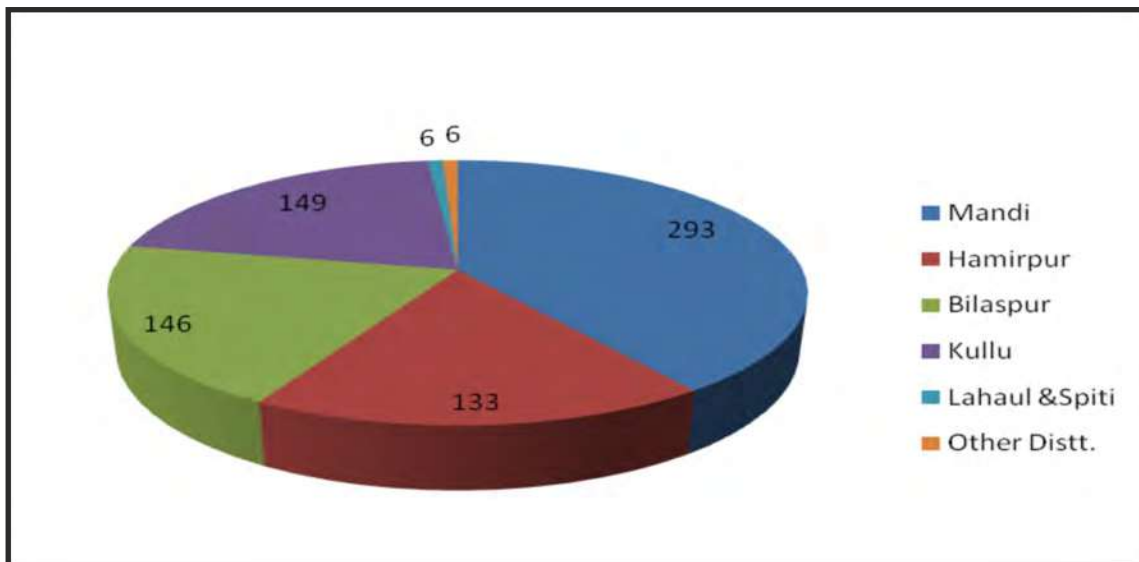
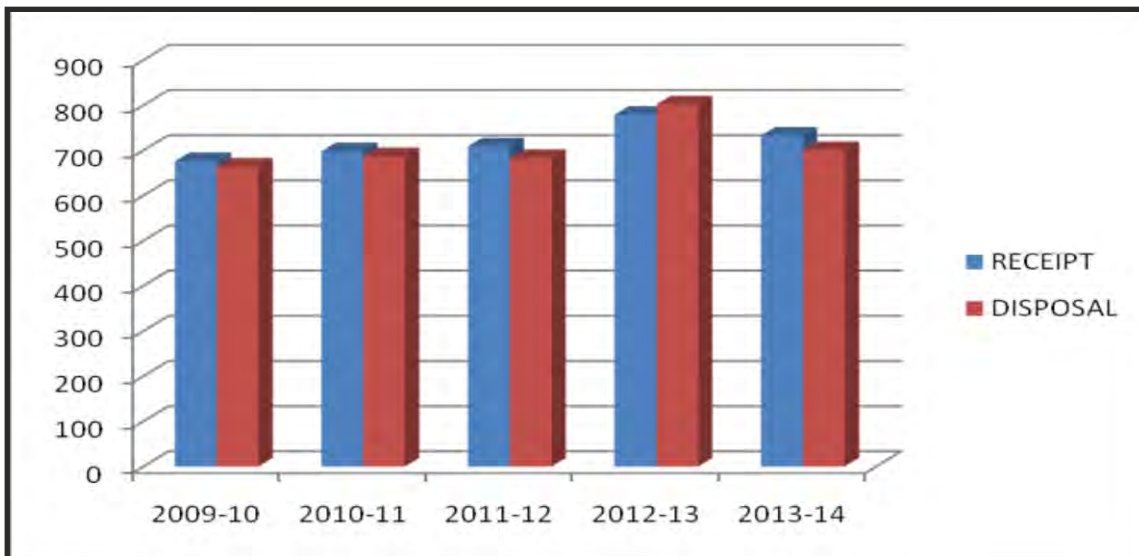


# CHEMISTRY & TOXICOLOGY DIVISION

The division undertakes examination of clue materials such as:

- Poison
- Petroleum product residues in arson and dowry deaths
- Alcohol estimation from blood and urine for drunkenness
- Phenolphthalein in trap cases
- Liquor
- Methanol in hooch tragedy
- Acid & alkali attacks
- Grease, wax, oil & resin
- Cosmetic & organic dyes
- Adulteration in petroleum products
- Chemical identification of unknown substances

## CASE STATISTICS





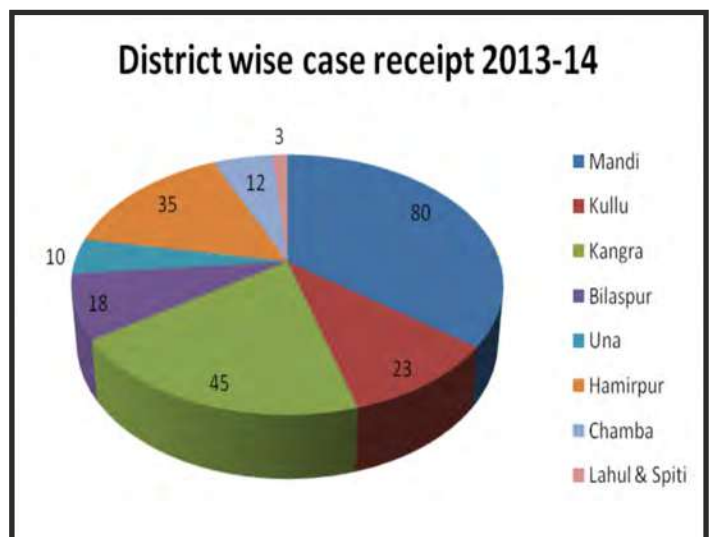
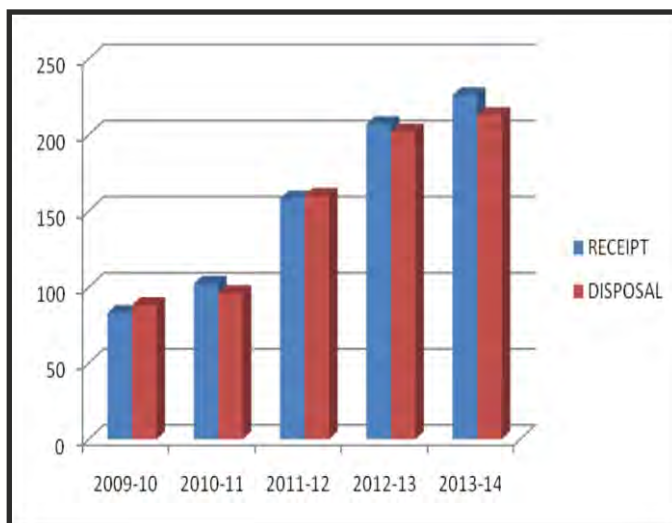
## PHYSICS & BALLISTICS DIVISION

The division undertakes examination of clue materials such as:

- Tool mark & telephone cable
- Footprint, shoe print & tyre mark
- Paint & glass
- Building material & bitumen
- Paper & fiber
- Metal adulteration in jewellery
- Soil, sand & grit
- Shining globule formation in electric short circuiting
- Resuscitation of number of stolen vehicle chassis & firearm
- Firearm, ammunition & gunshot residue etc



### CASE STATISTICS



## TEACHING & TRAINING

Name & Designation	No. of lecture / demonstration
Dr. Rajesh Kumar, Deputy Director	25
Dr. B.R. Rawat, Assistant Director	02
Sh. Rajesh Kumar, Assistant Director	06
Sh. Tek Chand, Assistant Director	15
Dr. Neeti Parkash Dubey, Assistant Director	08
Dr. Naresh Kumar, Scientific Officer	06
Sh. Sanjeev Singh, Scientific Officer	07
Sh. Rakesh Kumar Rana, Scientific Assistant	08
Sh. Dev Raj Kalia, Scientific Assistant	10
Sh. Chanderkant Sharma, Scientific Assistant	09

### TRAINING ATTENDED

Name	Course
Sh. Rajesh Kumar	Essentials of Finance and Financial Methodology sponsored by DST/GOI at Amity University, Noida on 18-29.11.13.
Sh. Tek Chand	Training on Office Procedure and Financial Administration at HIPA Mandi on 7-11.10.13.
Sh. Sanjeev Singh	Training on Office Procedure and Financial Administration at HIPA Mandi on 2-6.7.13.
Sh. Chander Kant	Training on Office Procedure and Financial Administration at HIPA Mandi on 9-13.12.13.
Sh. Hitesh Singh	Course on basic computer at HIPA Mandi on 24-28.09.13.

### CONFERENCE/SEMINAR/WORKSHOP/SYMPOSIUM ATTENDED

Name	Remarks
Sh. Rajesh Kumar	Workshop on Speaker Identification and Tape Authentication at NICFS, New Delhi on 06-08.08.13.
Sh. Tek Chand	Workshop on Integrated Criminal Justice System at Delhi on 01.02.14.

### COURSES ORGANIZED

Course	Number
• Capsule course for the trainees of Forest Research Institute at RFSL Mandi on 3 <sup>rd</sup> 4.09.13.	25
• Training programme on Forensic Science for the investigating officers of central range on 21.10-02.11.13.	17
• Training programme on Forensic Science for the investigating officers of central range on 18-30.11.13.	20
• Demonstration on Forensic Science to the students of DAV School, Mandi.	25
<b>Total</b>	<b>87</b>



## RESEARCH PUBLICATION

A communiqué from the editor of journals (national/international) and organizers of conference/seminar conveying acceptance of the research work for publication are the fuels that keep us moving forward. An endeavor has been made by creating congenial environment, encouraging officers/officials to write articles, research papers. There has been exponential increase in research publications from the department in comparison to preceding years.

Author(s) Name	Title	Reference
Bhatt, A., Bannerjee, S., Agnihotry, A., Neelam and Sharma, A.	Role of Micro organism in Forensic Science.	<i>e-journal of Him Forensics</i> (Accepted)
Chand, T., Sharma, N., Raj, D., Singh, R. and Sharma, A.	Tools of Forensic of Botany Confirmed the Identity of an Illegally Extracted and Traded Medicinal Herb, Nagchatri	<i>e-journal of Him Forensics</i> (Accepted)
Hoonka, S., Dubey, N.P., Esteve-Romero, J., Durgbanshi, A. and Bose, D.	Rapid Screening of Ketamine in Confiscated orange juice by Thin Layer Chromatography	<i>J. Indian Chem. Soc.</i> , 2013; 90:513-517.
Hoonka, S., Durgbanshi, A., Esteve-Romero, J., Dubey, N.P., and Bose, D.	Simultaneous Determination of Three Stupefacients in Foodstuff Using High-Performance Liquid Chromatography.	<i>J. of Liquid Chromatography &amp; Related Technologies</i> , 2014; 37(9):1287-1297.
Hoonka, S., Durgbanshi, A., Esteve-Romero, J., Dubey, N.P., and Bose, D.	Simultaneous Determination of Three Stupefacients in Foodstuff Using Micellar Liquid Chromatography.	<i>J. of AOAC International</i> (Accepted).
Ashok, V., Agrawal, N., Durgbanshi, A., Dubey, N.P., and Bose, D.	Detection and Quantification of Some Banned Colours In Common Indian Spices with the Help of UV-Visible Spectrophotometer.	<i>J. Indian Chem. Soc.</i> (Accepted).
Kumar Rajesh	Scene of Crime Examination and Reconstruction	INPALMS Conference at Malaysia (Accepted)
Mahajan, M., Sharma, A., and Sharma, N.	Cell Phone: A Vital Clue	<i>International Journal of Communication Sciences and Engineering</i> , 2013;7(7):201.
Mahajan, M., Sharma, A., and Sharma, N.	Cell Phone Transactions Security and Issue	<i>National Seminar on Social Media and Security</i> (Communicated)
Pal, SK, Sharma, A., Sehgal, A. and Kumar, V.	Individualisation of the Biological Remains from Anthropological Perspective-A Case Study.	<i>Medico-Legal Update</i> (An International journal), 2014;14(1):41-45.
Pal, SK, Sharma, A. and Sehgal, A.	Mystery of Double Murder Unraveled by Forensic Clues – A Case Report.	<i>Indian Journal of Forensic Medicine &amp; Toxicology</i> (Accepted).

## PROFESSIONAL EXCELLENCE

### Dr. Arun Sharma:

- Member of syllabus committee (M.Sc. Forensic Science), Kurukshetra University, Kurukshetra.
- Member of the inspection committee constituted by HP Private Educational Institution Regulatory Commission for ascertaining the standards of admission, teaching, examination, research, faculty and infrastructure.
- Member of Selection Committee for Award of UGC-BSR Fellowships at PU, Patiala.
- Member of Selection Committee for recruitment at PU Patiala.
- An examiner for Forensic Science and Forensic Medicine at Police Training College, Daroh.
- Empanelled as an examiner for Post Graduate Degree and PhD thesis in forensic science in different universities.

### Dr. Rajesh Kumar

- Delivered lecturer to trainees of Forest Research Institute, Sunder Nagar.

### Dr. Meenakshi Mahajan

- Empanelled as an examiner for evaluation of PhD thesis in the department of Chemistry and Forensic Science at SHIATS, Allahabad.
- Invited to present research paper in 34<sup>th</sup> International conference on Forensic Science organised by World Academy of Science Engineering and Technology (WASET) at London, UK on 08-09.07.13 and published in Journal of WASET.

### Dr. G. C. Thakur

- Examiner for M.Sc. practicals of Environmental Science, HP University, Shimla

### Dr. Vivek Sahajpal

- Abstract of the chapter written on Microscopic Identification of wildlife items in trade for publication in *Advances in Microscopy*, Formatex Publishers, Spain.

### Sh. Tek Chand

- Delivered lecture to trainees of Forest Research Institute, Sunder Nagar.

### Dr. S.K. Pal

- Delivered lecture to the participants at State level Children Science Congress & received appreciation

## MAJOR INITIATIVES

- New logo showing new design, motto, Silver Jubilee year of State FSL was prepared and got approved from the Govt. First time Motto, Mission & Vision of the organization was prepared and got approved from the Govt.
- E-reporting, first of its kind in the country, from State FSL, RFSLs is on trial run.
- Him forensics e-journal prepared. Designed front page and contents. Editorial board constituted and is ready for launch.
- Video conferencing facility at State FSL with Courts for evidence mooted.
- First time documentary on State FSL & RFSLs prepared and is ready for launch.
- Work on new and comprehensive Website during Silver Jubilee Year completed and is ready for launch.
- An essay competition on Role of Science in Crime Investigation was organized in Govt. schools of all the three ranges.
- Dos & Don'ts at the crime scene was organized for students of Rani Ratna Kumari Govt. Senior Secondary School Nogli, Rampur Bushahr, Distt. Shimla.
- Examination of excise cases of liquor, diatom, and cell-phone forensic analysis commenced at State FSL H.P.
- Worked to revise syllabus of Departmental Examination conducted by HIPA to incorporate to advances in forensics.
- Efforts made to have Distt. Mobile Forensic Units with partial grant received in the year 2010-11 from GOI. The state Govt. approved the proposal & for additional grant a proposal was got revived at MHA/GOI after pursuing consistently. Fresh proposal for funds requirement sent.
- Proposal for Himachal Forensics Academy of Rs. 96 crore sent to the 14<sup>th</sup> Finance Commission. Likewise, another proposal of Rs. five crore sent to 14<sup>th</sup> Finance Commission through PHQ to BPR&D, MHA/GOI for training facilities.
- A proposal for Deptt./Directorate of Forensic Services was sent to the Govt.
- A proposal for biological waste management through scientific and environmental pollution free methods, after lab analysis with a time frame for storage, was mooted.

## ACHIEVEMENTS

- Proposal of Rs. 5 crore for new Forensic Hqrs complex got approved from the Govt and the budget allotted during financial year 2014-15.
- Proposal of Rs. 2.25 crore was got approved from the Govt. and budget allotted for construction of staff quarters of RFSL, NR, Dharamshala during financial year 2014-15.
- Rs. 55 lacs under modernisation of police forces scheme were committed by the Govt. for the year 2013-14.
- Funds received under modernisation of police forces scheme (~ Rs. 60 lacs) were utilized and equipments-Forensic XP4010D, XRY etc. were got installed. E-surveillance project in progress.
- 100% basic computer literacy rate was achieved by deputing officers and officials to HIPA for the purpose of computerization in the Department.
- Seniority list & ACP of GOs was got finalized from the Govt.
- ACP cases of Class-III and Class-IV were finalized.
- Proposal to include HOD in the DPC of Class-I, II & III employees of State FSL and RFSLs was got approved from the Govt. Likewise, name of HOD has been approved for inclusion in the civil list.
- Canteen facility and Guest House facility for staff got approved from the Govt.
- 31 RTI applications were received and disposed off from 01.04.13 to 31.03.14.
- Annual Administration report 2012-13 was got approved from Govt.
- Vacant posts (LabAtt-4) were got filled up from surplus pool of Finance Deptt.

## PUBLIC AWARENESS

Public is the first to get the information, whenever there is an occurrence, followed by the police. Then comes the turn and role of the forensic experts. Accordingly, education about role of public in preserving the crime scene treasured with clues is vital. With that in mind, first of its kind in the country, important fairs in different parts of state visited by all folks were planned to be covered to disseminate forensics knowledge. Following exhibitions were organized:

Sr. No	Event	Period
1.	International Minjar Fair at Chamba	29.7- 04.08.13
2.	International Dushehra Fair at Kullu	14- 21.10.13
3.	International Lavi Fair at Rampur	11- 14.11. 13





# FORENSICS IN MEDIA

The good work done in the four walls of lab may remain buried in the records or may go unnoticed. Accordingly, media officers were nominated from each office to interact with press to convey how useful forensics is in crime investigation.





Hon'ble Chief Minister, Himachal Pradesh  
at RFSL, NR, Dharamshala



Trainee Judicial Officers at State FSL



Trainee Police Officers at RFSL, NR, Dharamshala



Forensic Awareness Programme



Hon'ble Cabinet Minister Inaugurating Forensic  
Exhibition at Minjar Fair Chamba



Trainee Medical Officers at State FSL



Trainee Forest Officers at RFSL, CR, Mandi



Forensic Awareness Programme

EVENTS AT A GLANCE

# WHO WROTE WHAT .....

S. No.	Address	Remarks
9/11/2013	PRATIBHA SINGH M.P. MANDI LOKSABHA. SHIMLA.	I congratulate the Forensic Lab for doing so much research and investigating matters which are of great help. Well done. Pratibha Singh
1.	DGP/HP, Shimla	Visited the stall in CPW Annual State meet. Some interesting cases in which Forensics played key role in teaching the accused have been displayed and explained to me. This establishes the importance of scientific evidence in investigation of cases. The staff are well versed and qualified in their respective fields. I hope they will keep contributing to qualitative investigation. I wish them all the very best for future. Sund 27/11/2013 (Sanjay Kumar)
120	SARNA PRAKASH THAKUR B-10, Hoshikhera Mustaf DP Bheethi Colony (Kullu)	Very valuable and excellent. Knowledgeable information. Awareness about various crimes, their occurrence & results etc. This will be quite useful for general public. Congratulations
L.	Ashish Chandra Dular 4418834911	SP Shimla: Very good initiative taken by forensic department to make people aware. More equipments could be put on exhibition in future. 11/11/13.

219

Dr P D Lal  
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A visit to this stall is really eye opening not only for professional life but also for ordinary citizens

220

Pl post me more literature

More effort should be made to inculcate such knowledge at school/college level too!

Visit to Forensic for students will be a great service!

Dr P D Lal

327. Kusthulan Verma  
DSF Sundernagar.

Outstanding display of the forensic knowledge to the common man to know the forensics & to make it helpful in detection of crime whereby people do come forward to help the investigation agencies to detect the crime. All the best.

SI. Dinesh Kumar AIP  
on study leave.

Amest  
29/10/13

Today I visited the exhibition at Police ground Dphala, and learnt the useful thing viz. during their origin, development and arson cases and fire cases. The knowledge about forgery through documents and murder case investigations can be enhanced with the help of forensic knowledge. Permanent facility at the Govt d Bains must be provided