



**Dr. Kriti Nigam**

Assistant Professor & Head I/C

Department of Forensic Science

Jharkhand Raksha Shakti University, Ranchi

Mob: +91- 8303793737, Email ID: kritinigam1@gmail.com

Presently associated as Assistant Professor & Head I/C in an organization that is enhancing my horizon of knowledge and giving me the opportunity to prove myself by working innovatively for the enhancement and betterment of education in the field of Forensic Science. I am working for a university which is offering career growth and chances to learn and improve my knowledge and to contribute towards the organizational goal through my skills and past experiences.

### **CAREER SYNOPSIS**

- Presently working as Assistant Professor and Head I/C, Department of Forensic Science, Jharkhand Raksha Shakti University, Ranchi since March 2022
- Worked as Assistant Professor, Dr. A.P.J. Abdul Kalam Institute of Forensic Science & Criminology, B.U., Jhansi from May 2015 to March 2022.
- Teaching UG and PG students of Forensic Science of SHUATS since 2011 till April 2015.
- Research experience of more than 11 years.
- UGC-NET Qualified for JRF vide letter No A097279, 2009.
- Ph.D. in Forensic Science.
- Full Time Post Graduate Degree in Forensic Science.
- Full time Degree of Law (LL.B.).

### **ADMINISTRATIVE POSITIONS**

- Former Coordinator/Head, Institute of Forensic Science & Criminology, BU, Jhansi
- Controller of Examination (I/C), JRSU from March 2022- September 2023
- Nodal Office, NEP-2020, JRSU
- Coordinator, IQAC, JRSU
- Coordinator, Anti-ragging Cell, JRSU
- Presiding Officer, Internal Complaints Committee, JRSU

### **KEY SKILLS**

- Profound knowledge in Forensic Science with a niche in Document Examination & Law.

- Proficient in Teaching Ability, Communication & Presentation Skill.
- Highly skilled in using the different course books and material for teaching Forensic Science.
- Ability to dramatize Forensic Scenario effectively and creativeness in teaching process.
- Ability to plan, collect material and deliver the lessons in theclass.
- Capacity to arrange the competitions and assess the performance of thestudents.
- Ability to inspire the students for desired effects in the Forensic Science teaching task.
- Sound Knowledge of Microsoft Office and other general use of Computer software andinternet.

### **ACADEMIC AND PROFESSIONAL CREDENTIALS**

- Ph.D. (Forensic Science) on “Multiple Classifier System in Off-line Handwriting for Writer Identification and verification” from Department of Forensic Science under able guidance of Dr. Munish Mishra, Assistant Professor, Department of Forensic Science, Sam Higginbottom University of Agriculture, Technology & Sciences, Allahabad.
- UGC-NET qualified for Junior Research Fellowship (Dec 2009, Certificate No.- A097279).
- Bachelor of Law (LL.B.) from C.C.S. University, Meerut (2008-2011) securing 61.25%.
- Master of Science in Forensic Science from Dr. B.R. Ambedkar University, Agra (2006-2008) securing66.9%.
- Bachelor of Science (Z.B.C.) from C.C.S. University, Meerut (2003-2006) securing73.75%.
- Online Introductory Course in Intellectual Property Rights from ASCL Law School, Pune.
- Introductory Course in Hacking and Cyber Security from Data64 Techno Solutions Pvt. Ltd.,Pune.
- Online Introductory Course in Cyber Laws from Asian School of Cyber Laws,Pune.
- Introductory Course in Password Breaking and Security from Data64 Techno Solutions Pvt. Ltd.,Pune.

### **MEMBERSHIP OF PROFESSIONAL BODIES**

- Life Member of Indian Academy of Forensic Science, Kolkata,India

### **TRAINING / INTERSHIPS**

- **Organization:** Government Examiner of Questioned Documents  
**Duration:** 12.06.2007-22.06.2007

**Description:** Different areas of Forensic Documents Examination, handled all sort of document examination while working on live cases and assisting the Document examiner.

- **Organization:** Forensic Science Laboratory, Delhi  
**Duration:** 26.02.2014- 26.03.2014  
**Description:** Experience of working on live cases on various aspects of questioned document examination, and working on different instruments used for Forensic Document Examination.
- **Organization:** Department of Forensic Science, SHUATS, Allahabad  
**Duration:** 25.06.2014- 04.07.2014  
**Description:** Verification of genuine Candidates for admission at SHUATS by their biometric identification during University Admission counseling.
- **Organization:** Center for e-Learning, SGTB Khalsa College, University of Delhi, Delhi  
**Duration:** 15.12.2014- 03.03.2015  
**Description:** Associated as intern in e- PG Pathshala Project sponsored by UGC under NMEICT mission of MHRD, Govt. of India.
- **Organization:** Innovation Center, Bundelkhand University, Jhansi  
**Duration:** 03.10.2018- 06.10.2018  
**Description:** Faculty Training Programme on Advance Scientific Research Equipments.
- **Organization:** Shri Vaishnav Vidyapeeth Vishwavidyalya  
**Duration:** 07.08.2020- 11.08.2020  
**Description:** Faculty Development Programme on Forensic Document Examination: Principles and Practices.
- **Organization:** Shri Vaishnav Vidyapeeth Vishwavidyalya  
**Duration:** 23.08.2022- 27.08.2022  
**Description:** Faculty Development Programme on Recent Advancements in Criminal Justice System.
- **Organization:** Indira Gandhi National Open University  
**Duration:** 07.11.2022- 16.11.2022  
**Description:** UGC approved Short- Term Professional Development Programme on 'Implementation of NEP-2020 for University and College Teachers'.
- **Organization:** UGC Human Resource Development Centre, University of Lucknow  
**Duration:** 06.01.2023- 04.02.2023  
**Description:** Guru Dakshta (Orientation Programme/ Faculty Induction Program)
- **Organization:** Sherlock Institute of Forensic Science  
**Duration:** 03.04.2023- 28.04.2023  
**Description:** Foundation Certificate Course in Forensic Odontology
- **Organization:** Inter University Center for Teacher Education, B.H.U., Varanasi  
**Duration:** 09.12.2024- 17.12.2024  
**Description:** NEP Orientation & Sensitization Programme
- **Organization:** Indian Institute of Information Technology, Ranchi  
**Duration:** 19.12.2024- 23.12.2024

**Description:** Faculty Development Programme on 'AI & ML for Sustainable Development: From Fundamentals to Advanced Applications'

- **Organization:** National Institute of Technical Teacher's Training & Research, Kolkata
- Duration:** 27.01.2025- 31.01.2025

**Description:** Faculty Development Programme/ Short Term Training Programme on 'Development of Laboratory Instruction and Manual'

### **RESEARCH AND ANALYTICAL EXPERIENCE**

- Examination & Identification of FINGER PRINTS by various methods including the Biometrical Approach
- Experienced in examination of suspected document with high resolution optical instruments and spectral analysis using sophisticated instruments like VSC.
- Experienced in Identification of characteristic features of handwriting, Natural Variations, study of Disguise, Secret and Indented Handwriting for its genuineness.
- Expertise in examination of counterfeit documents including currency notes for their genuineness.
- Experience of handling instruments based on Analytical Techniques like TLC, GC, HPLC and U.V. Spectrophotometer.

### **ACHIEVEMENTS AND CO-CURRICULAR ACTIVITIES**

- Delivered lectures on Law to students of PG Diploma in Forensic Science at SGTB Khalsa College, New Delhi, as a Guest Faculty.
- Worked as Intern with UGC sponsored e-Content Development for PG Courses Project under NMEICT, MHRD, Govt. of Delhi from 15<sup>th</sup> December, 2014- 3<sup>rd</sup> March, 2015.
- Attached as Content Writer to a project of U.G.C. on e-Content Development for PG Courses under NMEICT, MHRD, Govt. of Delhi.
- Conducted awareness program on "Need of Forensic Science" in CJM Compound, Rath on 8<sup>th</sup> August, 2015.
- Actively participated as Co- Convenor in Literary Events Committee in the Inter University Central Zone Youth Festival organized by Bundelkhand University, Jhansi from 19<sup>th</sup> November- 23<sup>rd</sup> November, 2015.
- Laboratory visit at Regional Forensic Science Laboratory, Northern Range, Dharamshala from 12<sup>th</sup> January- 22<sup>nd</sup> January, 2016.
- Attached as Content Writer with a project of I.G.N.O.U. on e-Content Development for one-year Postgraduate Diploma in Forensic Anthropology.
- Actively participated as Member of Literary Events Committee in the Inter Faculty Cultural Competitions organized by Bundelkhand University, Jhansi from 17<sup>th</sup> October- 19<sup>th</sup> October, 2016.
- Laboratory visit at Regional Forensic Science Laboratory, Northern Range,

Dharamshala from 18<sup>th</sup> January-28<sup>th</sup> January,2017.

- Laboratory visit at State Forensic Science Laboratory, Junga from 14<sup>th</sup>March-23<sup>rd</sup> March,2018.
- Attached as Content Writer with a project of I.G.N.O.U. on e-Content Development for two-year Postgraduate Program in Forensic Anthropology.
- Delivered invited lecture on “Science of Fingerprint Patterns” under Forensic Summer Finishing School organized by SIFS, Delhi on June 25<sup>th</sup>, 2023.
- Delivered invited lecture as Resource Person on “Role of I.T. in Criminal Justice System: Current Trends and Future Perspectives” on March 16<sup>th</sup>, 2024 in Multi-Disciplinary Refresher Course in Information Technology organized by UGC-MMTTC, Ranchi University, Ranchi.

#### **CONFERENCES, SEMINARS AND WORKSHOPS ATTENDED / ORGANIZED**

- Attended in National Seminar on “Globalization Impact on Privatisation and Investment Policies in Public Sector Enterprises in India” (sponsored by I.C.S.S.R & U.G.C.) organized by Department of Economics, Kisan (P.G.) College, Simbhaoli on February 4<sup>th</sup>,2010.
- Presented a paper titled “Human Rights and Women” in I.C.H.R. sponsored National Seminar organized by Jagdish Saran Hindu Snatakottar Mahavidyalay, Amroha on February 6<sup>th</sup>-7<sup>th</sup>, 2010.
- Presented a paper titled “Anti-social Activities of Immature and Parenting Styles” in National Seminar organized by Shri Varshney Mahavidyalay, Aligarh on February 20<sup>th</sup>-21<sup>st</sup>, 2010.
- Actively participated in National Seminar on “Digital Forensic- A Tool for IT Security” organized by Department of Forensic Science, SHIATS, Allahabad on February 24<sup>th</sup> - 25<sup>th</sup>,2011.
- Actively participated in one day workshop on “Ethical Hacking & Cyber Forensics” organized by Department of Forensic Science, SHIATS, Allahabad on February 26<sup>th</sup>, 2013.
- Actively participated in National Seminar on “Forensic Investigation & Crime Scene Management, their role in Justice Delivery System” organized by Department of Forensic Science, SHIATS, Allahabad on September 13<sup>th</sup>-14<sup>th</sup>,2013.
- Actively participated at IDA Connect Workshops at World didac India-2014 for the session “Technology Enhanced Learning in Higher Education”, organized by Center for e- Learning, Khalsa College, DelhiUniversity.
- Actively participated as Joint Secretary in organizing National Seminar on “Online Banking Frauds: Security Countermeasures” organized by Department of Forensic

Science, SHIATS, Allahabad on April 16<sup>th</sup> -17<sup>th</sup>,2015.

- Presented Research Paper titled “Crime Against Women: Issues & Challenges of 21st Century” in 38<sup>th</sup> Annual Conference of the Indian Society of Criminology on “Sex, Power, Crime & Victims: The Requiror for Policy Shift in India” organized by Department of Criminology & Criminal Justice, Manonmaniam Sundaranar University, Tamil Nadu on October 15<sup>th</sup>-16<sup>th</sup>,2015.
- Presented Research Paper as Invited Speaker on “Forensic Aspects of Nanotechnology” in National Conference on “Recent Trends in Biotechnology” organized by Vijayaraje Institute of Science and Management on 30<sup>th</sup>31<sup>st</sup> January, 2016.
- Presented Research Paper titled “Forensic Examination of Disguised Handwriting” in National Seminar on “Issues and Challenges in Forensic Medicine & Forensic Science” organized by Department of Forensic Science, SHIATS, Allahabad on 9<sup>th</sup>- 10<sup>th</sup> March,2016.
- Actively participated as Treasurer in organizing National Seminar on “Role of Forensic Science in Disaster Victim Identification in Indian Perspective” organized by Dr. A.P.J. Abdul Kalam Institute of Forensic Science Criminology, BU, Jhansi on March 18<sup>th</sup> - 19<sup>th</sup>,2016.
- Actively participated as Treasurer in organizing National Conference on “Future Perspectives of Forensic Science in India” organized by Dr. A.P.J. Abdul Kalam Institute of Forensic Science & Criminology, BU, Jhansi on March 9<sup>th</sup>-10<sup>th</sup>,2017.
- Actively participated in National Seminar on “Prospects of Uniform Civil Code in Present Indian Scenario” organized by BabuJagjivan Ram Institute of Law, Bundelkhand University, Jhansi on November 3<sup>rd</sup>,2017.
- Presented Research Paper entitled “A Comparative Study of Consistency in Handwriting of Twins” in National Conference on “Forensic Science: An Interface between Science, Law and Justice” organized by Institute of Forensic Science, Nagpur on 23<sup>rd</sup> December,2017.
- Actively participated as Treasurer in organizing International Conference on “Advances in Forensic DNA Technology” organized by Dr. A.P.J. Abdul Kalam Institute of Forensic Science & Criminology, BU, Jhansi on February 22<sup>nd</sup>-24<sup>th</sup>, 2018.
- Actively participated in Awareness Seminar on “e-Learning and MOOCs in Higher Education”organizedbyGuruAngadDevTeachingLearningCenterofMHRD,SGTB Khalsa College, Delhi University and Bundelkhand University on January 24<sup>th</sup>, 2019.
- Actively participated as Co- Organizing Secretary in organizing National Conference on “Challenges and Innovations in Criminal Justice System (FORENSICON- 2019)” organized by Dr. A.P.J. Abdul Kalam Institute of Forensic Science & Criminology, BU, Jhansi on February 21<sup>st</sup> -22<sup>nd</sup>,2019.

- Actively participated in Webinar on “The Governance of Cyberspace: Co-Production of Cyber Security” organized by Department of Criminology and Criminal Justice, Manomaniam Sundaranar University and Indian Society of Criminology on May23<sup>rd</sup>, 2020.
- Attended Webinar on “Application of Forensic Psychology in the Court Room” organized by Criminological Research & Development Organization on June03<sup>rd</sup>, 2020.
- Delivered lecture at virtual workshop (IGVW-2020) on Handwriting Examination organized by Infinivis Global Institute, during June 12<sup>th</sup>-21<sup>st</sup>, 2020.
- Actively participated in Webinar on “Maximize your Forensic Lab Efficiency with Advances to Capillary Electrophoresis Workflow” organized by Thermo Fisher Scientific, India on July17<sup>th</sup>, 2020.
- Actively participated as Co- Chairperson and member of Scientific Committee in 3<sup>rd</sup>International e-Conference on “Document Examination” organized by International Association of Scientists and Researcherson March 27<sup>th</sup>-28<sup>th</sup>,2021.
- Actively participated as member of Scientific Committee in 4<sup>th</sup>International e-Conference on “Fingerprint Analysis” organized by International Association of Scientists and Researchers on April 24<sup>th</sup>-25<sup>th</sup>,2021.
- Actively participated as member of Scientific Committee in 6<sup>th</sup>International e-Conference on “Cyber & Digital Forensics” organized by International Association of Scientists and Researchers on June 26<sup>th</sup>-27<sup>th</sup>,2021.
- Actively participated as member of Scientific Committee in 7<sup>th</sup>International e-Conference on “Forensic Psychology” organized by International Association of Scientists and Researchers on July 24<sup>th</sup>-25<sup>th</sup>,2021.
- Actively participated as member of Scientific Committee in 8<sup>th</sup>International e-Conference on “Forensic Medicine & Toxicology” organized by International Association of Scientists and Researchers on August 28<sup>th</sup>-29<sup>th</sup>,2021.
- Actively participated as member of Scientific Committee in 9<sup>th</sup>International e-Conference on “Forensic Chemistry & Toxicology” organized by International Association of Scientists and Researchers on September 29<sup>th</sup>-30<sup>th</sup>,2021.
- Actively participated as member of Jury and Scientific Committee in 10<sup>th</sup>International e-Conference on “Crime Scene Investigation” organized by International Association of Scientists and Researchers on October30<sup>th</sup>-31<sup>th</sup>,2021.
- Actively participated as member of Scientific Committee in 11<sup>th</sup>International e-Conference on “Cyber Security” organized by International Association of Scientists and Researchers on November 27<sup>th</sup>-28<sup>th</sup>,2021.
- Actively participated as member of Scientific Committee in 12<sup>th</sup>International e-

Conference on “Forensic Physics” organized by International Association of Scientists and Researchers on December 11<sup>th</sup>-12<sup>th</sup>, 2021.

- Participated in one day NAAC sponsored seminar on “Quality Enhancement and Sustenance in Higher Education” organized by Internal Quality Assurance Cell (IQAC), Uttarakhand University, Dehradun on November 25<sup>th</sup>-26<sup>th</sup>, 2022.
- Participated in National Conference on “Forensic Advancements and Technological Explorations” organized by Lovely Professional University on November 18<sup>th</sup>, 2022.
- Participated in two days’ workshop on “University’s Vision and Strategy Development” organized by Raj Bhawan, Ranchi in association with DSPMU and RU, Ranchi on November 7<sup>th</sup>-8<sup>th</sup>, 2023.
- Oral Presentation on “Qualitative Analysis of Neonicotinoid Group of Pesticides” in International Conference on “Trends in Forensics, Law and Criminology: Empowering Criminal Justice in 21<sup>st</sup> Century and Beyond” organized by The West Bengal National University on Juridical Sciences on March 20<sup>th</sup>-22<sup>nd</sup>, 2024.
- Appointed as member of Panel for Item Writing and Test-paper Development Workshop organized by National Testing Agency, Delhi from September 22<sup>nd</sup>-27<sup>th</sup>, 2025.

#### **LIST OF PUBLICATIONS**

- **Nigam, K.**, Gupta, A.K. and Chattree, A. (2013) “Analysis of Narcotics in Urine: A Review”. Research and Reviews: Journal of Medical and Health Sciences, Vol.2 Issue 2, pp- 22-27. (Online ISSN:2319-9865)
- **Nigam, K.**, Saran, V., Gupta, A.K. and Ahmed, S. (2013) “Emerging Trends of Automated Handwriting Analysis”. International Research Journal of Management Science & Technology, Vol.1 Issue 4, pp- 13-25. (Online ISSN:2250-1959)
- **Nigam, K.**, Saran, V., Gupta, A.K. and Ahmed, S. (2013) “Automated Tool Based on Statistical Study for Predicting Probability of Female Authorship”. International Journal of Engineering Research & Technology, Vol.2 Issue 11, pp- 904- 906. (ISSN: 2278-0181)
- Saran, V., Kumar, S., **Nigam, K.**, Ahmed, S. and Gupta, A.K. (2015) “Automated Measuring Tool for Handwriting Examination”. International Journal of Engineering and Computer Science, Vol. 4 Issue 3, pp- 10964-10967. (ISSN:2319-7242)
- **Nigam, K.**, Ahmed, S., Sharma, A.K., Gupta, A.K. and Saran, V. (2015) “Examination of Handwritten Suicide Note for Authorship and Changes due to Depression: A Case Study”. Indian Police Journal, Vol. LXII No. 2, pp- 192-198. (ISSN:0537-2429)
- Yadav, M.M., **Nigam, K.**, Srivastava, A. and Kumar, P. (2016) “Recent Advancements

in Ear Biometrics: A Review". International Journal of Engineering Sciences & Research Technology, Vol. 5 Issue 4, pp- 652-659. (ISSN:2277-9655)

- Yadav, M.M., **Nigam, K.**, Srivastava, A. and Yadav, V.K. (2017) "A Preliminary Study on Frequency Distribution & Inheritance Pattern of Different Characteristics of Ear among Population of Moth Region of Jhansi District". International Journal for Research in Applied Science & Engineering Technology (IJRASET), Vol. 5 Issue X, pp- 236-241. (ISSN:2321-9653)
- Srivastava, A. Mahajan, M. and **Nigam, K.** (2017) "Decipherment of Latent Handwritten Impressions: A Case Study". Journal of Forensic Research, Vol. 8 Issue 5, pp- 1-2. (ISSN :2157-7145)
- Harshey, A., Srivastava, A., Yadav, V.K., **Nigam, K.**, Kumar, A. and Das, T. (2017) "Analysis of Glass Fracture Pattern made by .177" (4.5 mm) Caliber Air Rifle". Egyptian Journal of Forensic Sciences, Vol. 7 Issue 20, pp- 1-8. (ISSN: 2090 -5939)
- **Nigam, K.**, Saran,V., Srivastava, A., Ahmed, S. and Gupta, A.K. (2018) "Automated Tool Based on Statistical Study for Predicting Probable Dextrality of Writers". Journal of Forensic Sciences & Criminal Investigation, Vol. 7 Issue 1, pp- 001-006. (ISSN: 2476 -1311)
- Abhyankar, S., Srivastava, A., Yadav, V.K., **Nigam, K.**, and Harshey, A. (2018) "Glass Fractures Made from Different Pellet Shapes- A Preliminary Study". Journal of Forensic Sciences & Criminal Investigation, Vol. 8 Issue 3, pp- 001-007. (ISSN: 2476 - 1311)
- Yadav, M.M., Srivastava, A., **Nigam, K.**and Yadav, V.K. (2018) "Comparative Analysis of Wild Animal Hairs". Global Journal of Engineering Science and Researches, Vol. 5 Issue 11, pp- 239-245. (ISSN:2348-8034)
- Yadav, V.K., Srivastava, A., **Nigam, K.** and Yadav, M.M. (2018) "Statistical Evaluation of Poisoning Trends in Bundelkhand Region". International Journal of Research and Analytical Reviews, Vol. 5 Issue 4, pp- 378-388. (ISSN:2348-1269)
- Srivastava, A., Kumawat, R., Dixit, S., Kaitholiya, K., Shrivastava, D., Yadav, V.K., **Nigam, K.**, Sharma, H., Trivedi, V.B., Chaube, G. and Shrivastava, P. (2019) "Genetic data for PowerPlex 21™ Autosomal and PowerPlex 23 Y-STR™ Loci from Population of the State of Uttar Pradesh, India". International Journal of Legal Medicine (Springer), doi.org/10.1007/s00414-018-01993-z.(ISSN: 1437-1596)
- **Nigam, K.**, Srivastava, A., Yadav, V.K. and Ahmed, S. and Gupta, A.K. (2019) "Automated Tool Based on Statistical Study for Predicting Probable Medium of Education of Writers". Journal of Emerging Technologies and Innovative Research, Vol. 6 Issue 4, pp- 276-280. (ISSN: 2349 -5162)
- Tiwari, N., Das, T., Harshey, A., Abhyankar, S., Yadav, V.K., **Nigam, K.**, Anand V.R. and Srivastava, A. (2019) "Evidential significance of multiple fracture patterns on the

glass in forensic ballistics”. Egyptian Journal of Forensic Sciences, Vol. 9 Issue 22, pp- 1-5. (ISSN: 2090 - 5939),<https://doi.org/10.1186/s41935-019-0128-4>

- Srivastava, A., **Nigam, K.**, Yadav, V.K. and Yadav, M.M. (2019) “Analysis of Diatoms of Fresh Water bodies in Manipur (India)”. Research Review International Journal of Multidisciplinary Sciences, Vol. 9 Issue 22, pp- 1-5. (ISSN: 2455 -3085)
- Srivastava, A., Yadav, V.K., **Nigam, K.**, Dixit, S.,Kumawat, R.K.,Shrivastava, D. andShrivastava, P. (2019) “Genomic Portrait of population of Uttar Pradesh, India drawn with autosomal STRs and Y-STRs”. ForensicScienceInternationalGeneticsSupplementSeries,Vol.7 Issue1,pp- 800-801. <https://doi.org/10.1016/j.fsigss.2019.10.182>
- Yadav, V.K., **Nigam, K.** andSrivastava, A. (2020) “Forensic investigation of arson residue by infrared and Raman spectroscopy: From conventional to non-destructive techniques” Medicine Science and the Law, <https://doi.org/10.1177/0025802420914807>
- Yadav, V.K., Harshey, A., Das, T.,**Nigam, K.**, Srivastava, A., and Sharma, K. (2020) “Effect of Different Matrices on the Identification of Ignitable Liquid Residue in Post Burn Arson Debris: A Multi-Derivative UV-Visible Spectrophotometric Approach” Asian Journal of Chemistry, <https://doi.org/10.14233/ajchem.2020.22902>
- Das, T., Harshey, A.,**Nigam, K.**, Yadav, V.K. andSrivastava, A. (2020) Analytical Approaches for Bloodstain Aging by Vibrational Spectroscopy: Current Trends and Future Perspectives. Microchemical Journal. (158) 105278.
- Kumar, A.,Srivastava, A., Das, T., Harshey, A.,Saini, V.R.,Kumar, A., Alim, Md.,**Nigam, K.**, and Yadav, V.K. (2020) “Restoration of Obliterated Stamped Marks on Aluminum Surfaces by Metallographic Etching Technique”, Oriental Journal of Chemistry, Vol. 36, No. 3, <http://dx.doi.org/10.13005/ojc/360628>
- **Nigam, K.**, Das, T., Harshey, A., Kumar, A., Kapoor, N.,Yadav, V.K.and Srivastava, A.(2020) “Effectiveness of Talcum Powder for Decipherment of Latent Fingerprints on Various Substrates” Asian Journal of Chemistry, <https://doi.org/10.14233/ajchem.2021.22949>
- Harshey, A.,Srivastava, A., Das, T.,**Nigam, K.**, Shrivastava, R. and Yadav, V.K.(2020) “Trends in Gunshot residue detection by electrochemical methods for forensic purpose”, Journal of Analysis and Testing, Springer
- Yadav, V.K., Das, T., Harshey, A., Yadav, M.M., **Nigam, K.**, Srivastava, A. (2021) “A Forensic Approach to Evaluate the Effect of Different Matrices and Extraction Solvents for the Identification of Diesel Residue in Simulated Arson by GC-MS. Chromatographia. <https://doi.org/10.1007/s10337-021-04022-1>
- Das, T., Harshey, A., Srivastava, A., **Nigam, K.**, Yadav, V.K.,Sharma, K. and Sharma, A. (2021) “Analysis of the ex-vivo transformation ofsemen, saliva and urine as they

dry out using ATR-FTIR spectroscopy and chemometric approach. *Scientific Reports* 11(1) <https://doi.org/10.1038/s41598-021-91009-5>

- Prajval Pratap Singh, Sunil Kumar Rai, Gyaneshwer Chaubey, Serosurveillance Consortium BHU (**Kriti Nigam**) (2023) “Estimation of real COVID-19 cases in India during the first wave” *IJID Regions*, Volume 6, Pages 80-83 DOI: <https://doi.org/10.1016/j.ijregi.2023.01.008>
- Abhimanyu Harshey, Alok Kumar, Akash Kumar, Tanurup Das, Kriti Nigam and Ankit Srivastava (2023) “Focusing the intervention of paper-based microfluidic devices for the forensic investigative purposes”, *Microfluidics and Nanofluidics*, Vol. 27: 65, Page No. 1 - 19, DOI: <https://doi.org/10.1007/s10404-023-02674-z>

#### CHAPTERS IN EDITED BOOKS AND PROCEEDINGS

- **Nigam, K.**, Srivastava, A., Yadav, V.K. and Kumar, P. (2015) “Crime against Women: Issues & Challenges of 21<sup>st</sup> Century”, 38<sup>th</sup> ISC conference proceeding of Department of Criminology & Criminal Justice, Manonmaniam University, Tirunelveli [ISBN-978-93-85477-26-3]
- **Nigam, K.**, Srivastava, A., Sahoo, S., Dubey, I.P., Tripathi, I.P. and Shrivastava, P. (2018) “Sequential Advancements of DNA Profiling: An Overview of Complete Arena” In: Pankaj Shrivastava, Hirak Ranjan Dash, Jose A. Lorente, Jahangir Imam (eds.) *Forensic DNA Typing: Principles, Applications and Advancements*, Published by Springer, Singapore [ISBN- 978-981-15-6654-7]
- Ammal, A., Yadav, V.K., **Nigam, K.**, Srivastava, A. (2023) “Instruments and Techniques in Forensic Science”, In: Shrivastava, P., Lorente, J.A., Srivastava, A., Badiye, A., Kapoor, N. (eds.) *Textbook of Forensic Science*, Springer Nature, Singapore, [ISBN No.- 978-981-99-1376-3] DOI: [https://doi.org/10.1007/978-981-99-1377-0\\_5](https://doi.org/10.1007/978-981-99-1377-0_5)
- Alim, M., Das, T., Yadav, V.K., Dev, K., Srivastava, A., **Nigam, K.** (2023) “Road Accident Investigation”, In: Shrivastava, P., Lorente, J.A., Srivastava, A., Badiye, A., Kapoor, N. (eds.) *Textbook of Forensic Science*, Springer Nature, Singapore, [ISBN No.- 978-981-99-1376-3] DOI: [https://doi.org/10.1007/978-981-99-1377-0\\_16](https://doi.org/10.1007/978-981-99-1377-0_16)
- Yadav, V.K., Kumar, A., Shahid, S., **Nigam, K.**, Srivastava, A. (2023) “Forensic Chemistry”, In: Shrivastava, P., Lorente, J.A., Srivastava, A., Badiye, A., Kapoor, N. (eds.) *Textbook of Forensic Science*, Springer Nature, Singapore, [ISBN No.- 978-981-99-1376-3] DOI: [https://doi.org/10.1007/978-981-99-1377-0\\_22](https://doi.org/10.1007/978-981-99-1377-0_22)

**2014-2016**

- Diversity of Diatoms at Different Sites of Orchha and Parichha: A Comparative Approach
- A Preliminary Study on Frequency Distribution and Inheritance Pattern of Different Characteristics of Ear among Population of Ear among Population of Moth Region of Jhansi District

**2015-2017**

- A Study of Correlation between Finger Length and Stature among Males and Females of Bundelkhand Region
- A Study of Pollen Grains of Jhansi District
- Handwriting Discriminability of Hindi Medium and English Medium Students of Uttar Pradesh
- A Comparative Study of Consistency in Handwriting of Monozygotic and Dizygotic Twins
- Metric Deviations between Genuine and Forged Signatures: A Mathematical Approach
- A Study of Influence of Pen Grasp Patterns on Handwriting
- Comparative Study of Humectants in Different Brands of Smokeless Tobacco through Gas Chromatography- Mass Spectroscopy

**2016-2018**

- Assessment of Relative Significance of Various Soot Removal Methods on Different Surfaces
- A Metric Approach towards Writer Identification for Hindi Script Handwriting
- A Comparative Study on Nicotine Concentration in Active and Passive Smokers
- A Comparative Study of Various Dental Parameters for Gender Determination
- Statistical Approach Towards Various Hindi Letters in Writer Identification
- A Study of Changes in Handwriting due to Alcohol Intoxication
- A Systematic Approach towards Forensic Analysis of Fountain Pen Ink
- Forensic Analysis of Arson Accelerants Extracted from Different Surfaces by using Various Techniques

**2017-2019**

- New Formulations of Conventional and Unconventional Dyes for SPR to Develop Latent Finger Print
- Validation of Phytochemical Methods for *Cerberaodollam*
- Comparative Study of Regional and Gender Variation in Ridge Minuatiae: A Statistical Approach
- Establishing the Efficiency of various existing and new unconventional powders for Latent Fingerprint Development with respect to different environmental conditions

- An Innovative Chemical Approach towards latent Fingerprint Development
- Analytical Detection of residues of Ignitable Liquids Recovered after using different Fire Extinguishing method
- Analysis of *Nerium oleander* by GC-MS-MS
- Stature Estimation from Different Foot Measurements Using Linear Regression Analysis

### 2018-2020

- Detection of Seminal Stains and Spermatozoa on different Fabric Laundered with Various Reagents
- Small Particle Reagent for Developing Latent Fingerprint on Wet Non-porous Unusual Surfaces
- Performance Analysis of Autopsy and RECUVA for Data Extraction from different Brands of Flash Drives: A Forensic Approach
- Comparative Study of Urdu Alphabets for Gender Determination
- Recognition of Non-habitual Urdu Writer using Digimizer: A Preliminary Study
- Phytochemical Analysis of Metabolites present in Different Parts of *Parthenium hysterophorous* Linn., A Noxious Weed
- Phytochemical Analysis of *Crotontiglium* Seed Extract and Powder: A Comparative Study
- Efficiency of Fingerprint Development on Different Surfaces under High Temperature Conditions
- Detection of Codeine in Various Caffeinated Beverages through Spot Tests
- Efficiency of Autopsy for Extraction of Different Image File Formats
- Sensitivity of Color Test for the Presence of Bezodiazapene Drugs in Different Beverages

### **OUTLINE OF SUBJECTS TAUGHT**

- Finger Print Examination
- Questioned Document Examination
- General Forensic Science
- Law
- Forensic Chemistry and Toxicology
- Research Methodology