

Curriculum Vitae

Rajesh Kumar, M.Sc., Ph.D.

Head, Department of Forensic Science

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POSITION HELD

Post	Duration
Head, Department of Forensic Science, Government Institute of Forensic Science, Aurangabad, MS, India	Sept., 2016 - till date
Assistant Professor, Department of Forensic Science, Government Institute of Forensic Science, Aurangabad, MS, India	Dec., 2014 - till date
SSA (Physics), Forensic Science Laboratory, Govt. of NCT of Delhi, New Delhi, India	Nov., 2011 - Nov., 2014
Research Fellow, Central Forensic Science Laboratory Hyderabad, Directorate of Forensic Science Services, MHA, Govt. of India.	May, 2007 – Nov., 2011
Scientific Assistant (Physics), Forensic Science Laboratory, Karnal, Haryana, India	Mar., 2007 – May, 2007
Scientific Associate (Physics), Forensic Science Laboratory, GNCT, New Delhi, India	Aug., 2006 – Mar., 2007

EXPERIENCE IN FORENSICS

- As Assistant Professor and Head, Department of Forensic Science, I have completed the following assignments:
 - Developed curriculum as a member for M.Sc., B. Sc. and PG Diploma in Forensic Science for Dr. BAM University, Aurangabad, MS, India.
 - Helped local police and CID Maharashtra in terms of examination of cases, crime scene reconstruction and guiding them on collection of samples at scene of crime.
 - Delivered more than 30 lectures in Police Departments, Police Training Colleges, academic Institutions and national and International conferences.
 - Organized workshops as coordinator and program chair in various discipline of Forensic Science including Crime Scene Investigation.
 - Organized summer and winter internship for the students of M.Sc., B.Sc. and PG Diploma in Forensic Science to the various Forensic Science Laboratories of the country.

- As SSA(Physics) at Forensic Science Laboratory, Govt. of NCT of Delhi:
 - Examined more than 300 cases and visited more than 75 scene of crime of diverse nature.
 - Delivered expert lectures at Central Bureau of Investigation (CBI) Academy, Ghaziabad and National Institute of Criminology and Forensic Science, Ministry of Home Affairs, Govt. of India.
- As a Research Fellow at Central Forensic Science Laboratory, Hyderabad:
 - Developed an image processing and pattern recognition framework for Forensic Document Examination.
 - Signature verification system developed by our team was placed among the best four signature verification system around the globe in ICFHR10-4NSIGCOMP signature verification competition.
 - Carried out a pioneer work in terms of development of software for the automatic detection of alteration in documents.
- As Scientific Assistant (Physics) at Forensic Science Laboratory, Haryana and Scientific Associate (Physics) at Forensic Science Laboratory Delhi, assisted senior forensic experts in more than 100 cases.

RESEARCH EXPERIENCE

- Published 8 papers in peer-reviewed journals /conference proceedings including IEEE Transaction Information Forensics and Security (**Impact Factor-4.332, JCR2017**) and Pattern Recognition Letters (**Impact Factor-1.995, JCR 2017**).
- Presented more than 15 papers in national and international conferences related to Forensics and Computer Science.
- Worked as referee in four international journals including IEEE Transactions of Cybernetics, IEEE Transaction Information Forensics and Security and IET Biometrics.
- Worked as program committee member and reviewer in more than 30 international conferences and reviewed more than 80 manuscripts.

PROFESSIONAL ACTIVITIES:

- **Chairman/Member in Academic Body**
 - Chairman, Examination Committee, M.Sc. (Forensic Science), Dr. BAMU, Aurangabad

- Member, Examination Committee, M.Sc. (Forensic Science), Mumbai University, Mumbai
- Member, Paper Setting Committee, UGC-SET Maharashtra, India
- Invited Member, Board of Studies (ETE), Govt. Engineering College, Aurangabad, Maharashtra, India
- Member, Board of Studies (Forensic Science), YCIS Satara (MS), India
- Invited Member, Punjab Public Service Commission, Patiala, Punjab, India
- Invited Member, MP Public Service Commission, Indore, MP, India
- **Chaired a Technical Session**
 - IEEE International Conference on Advances in Pattern Recognition (ICAPR 2015), India. [2015]
 - National Conference on Recent Trends in Forensic Science, YCIS, Satara, Maharashtra, India. [2016]
- **Worked as Program Chair**
 - National Workshop on Role of Diatoms in Forensics (NWRDF2016), Pune, India.

EDUCATIONAL QUALIFICATIONS

- **Ph. D. [Criminology and Forensic Science (2013)]**
 - Thesis: An Image Processing and Pattern Recognition frame-work for Forensic Document Fraud Analysis.
 - University: Dr. H S G Central University, Sagar, M.P., India.
 - Collaboration with: Indian Statistical Institute Kolkata, India.
- **M.Sc. [Forensic Science (2006)]**
 - Institute: LNJN National Institute of Criminology and Forensic Science, Ministry of Home Affairs, Govt. of India, New Delhi, India
- **B.Sc. (H) [Mathematics (2003)]**
 - University: Patna University, Patna, India.

AWARDS AND FELLOWSHIPS:

- International Travel Support, Department of Science and Technology, Govt. of India, New Delhi (2018).

- Best Scientific Paper Award in 23rd All India Forensic Science Conference organized by Directorate of Forensic Science Services, MHA, Govt. of India, New Delhi, India (2015).
- Research Assistantship, Indian Statistical Institute, Kolkata, India (2011).
- Senior Research Fellowship, Directorate of Forensic Science Services, Ministry of Home Affairs, Govt. of India, New Delhi. [2009-2011]
- Junior Research Fellowship, Directorate of Forensic Science Services, Ministry of Home Affairs, Govt. of India, New Delhi. [2007-2009]
- University Grant Commission(UGC)- National Eligibility Test for Lectureship (2005)
- Summer Fellowship, NBHM, MTTS Level-I, RIE Mysore. (2003)

PEER-REVIEWED PUBLICATIONS

- **Rajesh Kumar** and Gaurav Gupta. On Forensic Authentication of Bank Checks, Advances in Digital Forensics XII, Springer Verlag, Germany, 311-324, 2016.
- **Rajesh Kumar**, Bhabatosh Chanda and J. D. Sharma. A novel sparse model based forensic writer identification, Special issue on Frontiers in Handwriting Processing, Pattern Recognition Letters, 35, January 2014, 105-112. (**Impact Factor-1.995, JCR 2017**).
- **Rajesh Kumar**, Nikhil R. Pal, J. D. Sharma and Bhabatosh Chanda. Forensic Detection of Alterations in Ball-Point Pen Strokes, IEEE Transaction on Information Forensic and Security.7(2), April 2012,809-820. (**Impact Factor-4.332, JCR2017**)
- **Rajesh Kumar**, J. D. Sharma and Bhabatosh Chanda. Writer-Independent Off-line Signature Verification using Surroundedness Feature, Pattern Recognition Letters. 33(3), 1 Feb. 2012, 301-308. (**Impact Factor-1.995, JCR 2017**).
- **Rajesh Kumar**, Lopamudra Kundu, Bhabatosh Chanda and J. D. Sharma. A Writer-Independent Off-line Signature Verification based on Signature Morphology, Proc. of IITM 2010, pp. 261–265, ACM Digital Library, 2010.
- Pulak Purkait, **Rajesh Kumar** and Bhabatosh Chanda. Writer Identification for Handwritten Telugu Documents using Directional Morphological Features, Proc. of ICFHR 2010, pp. 653–658, IEEE Computer Press, 2010.
- **Rajesh Kumar**, Nikhil R. Pal, Bhabatosh Chanda and J. D. Sharma. Detection of Fraudulent Alterations in Ball-Point Pen Strokes using Support Vector Machines , Proc. of IEEE INDICON 2009, pp. 253–256, IEEE Computer Press, 2009.
- **Rajesh Kumar**, Nikhil R. Pal, J. D. Sharma and Bhabatosh Chanda. A Novel Approach for Detection of Alteration in Ball Pen Writings, PReMI 2009, LNCS Vol-5909, pp. 400–405, Springer, 2009.