



**Dr. Upasana Sinha, Associate Professor**

**Centre/School/Special Centre:** Engineering & Technology

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### **Educational Qualification**

1. **Ph.D. in Computer Science & Engineering** from Dr. C.V. Raman University, Kota, Bilaspur (C.G.): June 2017, under the guidance of Dr. Kamal K Mehta, Professor and Head , Department of Computer Science and Engineering, Shri Shankaracharya Group of Colleges, Bhilai, India and Dr. A.K Shrivastava, Head and Professor, Department of Physics, Dr. C.V. Raman University, Kota, Bilaspur (C.G.), India.
2. **M.E. (Computer Technology and Application):** July 2012: from Shri Shankaracharya Group of Colleges, Bhilai (C.G.), with 8.53 CPI (Honours).
3. **B.E (Computer Science Engineering):** Apr 2007: from Bhilai Institute of Technology, Durg (C.G.), with 7.72 CPI.

### **Field of Interest:**

- Digital Image Processing
- Artificial Intelligence
- Pattern Classification
- Deep Learning
- Pattern Recognition
- Computer Vision

### **Experience: 14 years of Teaching Experience**

### **Achievements/ Awards**

- Won HOD of the year Award through INSc (Institute of Scholars) in 2020.
- Won Best Senior Faculty Award, by Novel Research Academy, 2021

**International Collaboration/Consultancy:** Nil

**Best Peer Reviewed Publication (up-to 10):**

- Ramakant Chandrakar, **Rohit Raja**, Rohit Miri, Raj Kumar Patra, Upasana Sinha, Computer Succored Vaticination of Multi-Object Detection and Histogram Enhancement in Low Vision. Int. J. of Biometrics. Special Issue: Investigation of Robustness in Image Enhancement and Preprocessing Techniques for Biometrics and Computer Vision Applications. **Accepted [SCI Index Impact Factor – 1.2].**
- Ramakant Chandrakar, Rohit Raja, Rohit Miri, Upasana Sinha, Alok Kumar Singh Kushwaha, Hiral Raja, Enhanced the moving object detection and object tracking for traffic surveillance using RBF-FDLNN and CBF algorithm, 2021, [Expert Systems With Applications 191 \(2022\) 116306](#), [SCI Index Impact Factor – 6.954].
- Upasana Sinha, Sudhir Kumar, A Survey on Health Sector Using Artificial Intelligence And Big Data, Design Engineering, Issue: 6, pp. 7901-7911, ISSN: 0011-9342 2021. [Scopus] **Index Impact Factor:1.5**
- Upasana Sinha, Sudhir Kumar, Coronary Heart Disease (CHD) Risk Prediction Using Tree (DT) And Multi-Layer Perceptron (MLP), Design Engineering, Issue:6, pp.7912-7920, ISSN: 0011-9342 2021. [Scopus]. **Index Impact Factor:1.5**
- Upasana Sinha, Dileshwar Patel, Jyoti Yadav, A novel approach for Human Action Recognition, Journal of Xi'an Shiyou University, Natural Science Edition, vol 17 Issue: 09, pp.375-382, ISSN: 1673-064X. **Scopus Index Impact Factor:6.5**
- Upasana Sinha, Atul Singh, Dileshwar Patel, Modern Job Search Using Ontology Approach in Online Job Portals, International Journal of Advanced Science and Technology(IJAST), Issue:4, Vol 29, ISSN:2005-4238, pp. 4182-4189, 2020.[Scopus] **Index Impact Factor:0.475**
- Upasana Sinha, Vikas Dubey, A Study on Semantic Web: Technologies, language, goal, architecture & challenges, Journal of Xidian University, <https://doi.org/10.37896/jxu14.4/179>, ISSN:1001-2400. [Scopus] **Index Impact Factor:0.16**
- Upasana Sinha, Vikas Dubey, The Technique of Different Semantic Search Engines, International Journal of Recent Technology and Engineering (IJRTE), Vol 9, Issue:1, pp. 1496-1501, ISSN:2777-3878, 2020. [Scopus]. **Index Impact Factor:5.97**
- Upasana Sinha, Sandeep Tiwari, Forming Management Using Semantic Web Technology: A Review, Vol 31, Issue 27, pp. ISSN: 0971-2143, 2020 [UGC].
- Upasana Sinha, Sandeep Tiwari, Machine Learning Techniques in the Semantic Web, Tathapi, Vol 19, Issue:8, pp.985-991, ISSN:2320-0693. [UGC].

## Book Chapters

- Upasana Sinha, Akansha Gupta, Samera Khan, Shilpa Rani, Swati Jain, “Human Machine Interaction and Visual Data Mining”, Data Mining Technologies Using Machine Learning Application, 13:9781119791782,2021.
- Upasana Sinha, Kamal Mehta and Prakash C Sharma, “An Introduction to Medical Image Analysis in 3D”, Advanced in Artificial Intelligence, Machine learning in 2D/3D Medical Image Processing, 9780367374358, 2020
- Kamal mehta, Prakash C Sharma, Upasana Sinha,” Medical Image Fusion Using Adaptive Neuro Fuzzy Inference System”, Advanced in Artificial Intelligence, Machine learning in 2D/3D Medical Image Processing, 9780367374358, 2020.
- K Ramya Laxmi, Upasana Sinha, P. Sravana Laxmi, Sravya Gujjarlupudi, “The Prediction of performance & pricing of cryptocurrency Using machine Learning”, Blockchain and Machine learning based Emerging Technology Taylor & Francis Publishing House USA, 978-613-8-94950-3, 2020.
- Suman Kumar Swarnkar, Asha Ambhaikar, Virendra Swarnkar, Upasana Sinha, “Optimized Convolution Neural Network (OCNN) for Voice-Based Language Recognition: Optimization and Regularization”, nformation and Communication Technology for Competitive Strategies (ICTCS 2020), [https://doi.org/10.1007/978-981-16-0739-4\\_60](https://doi.org/10.1007/978-981-16-0739-4_60)

## Ph.D. Supervision

### Ongoing-02

## Additional Information:

### National / International Patent Published / Granted:

1. Patent Published: A System And Method For Determining Drowsiness Condition Of A Train Driver, Application Number:2778/MUM/2015A, Patent filed Date: 22/07/2015, Patent Published Date:27/01/2017
2. An Unmanned Aerial Vehicle for Surveillance. Application no.202021045472, filing date-19/10/2020  
Published date-13/11/2020 **Grant**
3. International Patent: Home Automation Based on User Detection Using Internet of Things, Application no.2021100439, Filing Date:23/01/2021, Grant:7/04/2021.

4. Optimized Convolution Neural Network (OCNN) for Voice Based Sign Language Recognition: Optimization. Application no 20201030006

### **Conferences/ FDP/ Guest Lecture**

Upasana Sinha, Analysis of Information and Communication Technologies Application and Improvement of Student Performance in Higher Education, 9th International Conference on Innovations in Electronics and Communication Engineering (ICIECE-2021), Aug 13<sup>th</sup>

Upasana Sinha, Tarun Diwan, Intelligent Learning Environment Model for Education, 2017 IEEE 7TH International Advance Computing Conference, Jan 5<sup>th</sup>, 2017.

Upasana Sinha, Knowledge Acquisition For Rule Based Development using Expert System, International Conference on Electrical, Electronics and Computer Science, Nagpur, July 7<sup>th</sup>, 2012.

Upasana Sinha, Kamal K Mehta, Railway Derailment Mionitoring and its Application to Avoid Sudden damages, International Conference on Electronics, Information and Communication System Engineering (ICEICE), March 28<sup>th</sup>, 2011

Upasana Sinha, Device Driver Wrapper enables the use of Microsoft Windows drivers for WebCams on Linux based Systems, National Conference on Innovation In Engineering, J.K.Institute of Engineering, Bilaspur, Feb 2<sup>nd</sup>, 2015.

RESEARCH METHODOLOGY” (RM-2021), One Week Joint Teachers Training Program (RM-2021) conducted under AICTE - CSVTU MoU Joint Teachers Training Program – 2021 organized by Chhattisgarh Swami Vivekanand Technical University, Bhilai-Durg (C.G.), March 21<sup>st</sup> 2022.

Deep Learning and Machine Learning Applications in Computer Vision”, One-week Faculty Development Programme Organized by Electronics & ICT Academies, NIT Patna, Aug 22, 2020.

Skill based Class on, National Program on Technology Enhanced Learning(NPTEL), Apr 10<sup>th</sup>, 2018.

Computational Intelligence and Blockchain Technology, FDP on Computational Intelligence and Blockchain Technology (CIBT-21)” organized by the Department of Computer Science & Engineering, NIT Raipur, Oct 4, 2021.

Artificial Intelligence And Machine Learning, Four days FDP Organganized by Lakhmi Chand Institute of Engineering, Bilaspur, Department of Computer Science Engineering, Jun 26, 2021

**Invited Guest lectures:**

Introduction to Image Processing, Organized by Dr.C.V.Raman University, Kota Bilaspur, Jan 22<sup>nd</sup>, 2022

Internet And Multimedia technology, Organized by Dr.C.V.Raman University, Kota Bilaspur, Nov 22,2011.

Compiler Design, Govt.E Raghvendra Rao P.G Science College(Guest Lecture)Organizing Institution, Bilaspur, Nov 27<sup>th</sup>, 2020