

# CURRICULAM VITAE

## SONICA UPADHYAY

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**CAREER OBJECTIVE:** To pursue a challenging career and be part of a progressive organization that gives scope to enhance my knowledge, skills and to reach the pinnacle in the computing and research field with sheer determination, dedication and hard work.

## ACADEMIC DETAILS:

YEAR	Degree/Exam	Institute
2014	M.Tech (CS)	Banasthali Vidyapith, Banasthali (Rajasthan.)
2011	B.Tech (CS)	UP Technical University, Lucknow
2007	Sr. Secondary	T.R.Girls Inter College, UP Board, Aligarh
2005	Secondary	T.R.Girls Inter College, UP Board, Aligarh
	Phd( <b>Pursuing</b> )	Banasthali Vidyapith, Banasthali (Rajasthan.)

## TRAININGS:

INSTITUTE/ORGANIZATION	DURATION	PROJECT
1) Guru Gobind Sng Indraprastha University (Govt. of NCT of Delhi), New Delhi	Ten Months M.Tech Dissertation (June,2013-March 2014).	Unsupervised Neural Networks For Image Processing
2) ACET, Aligarh	Two months B.Tech Project (July 2010-August 2011).	Question Paper Generator

## PROJECTS AND WORK DONE:

- **M.Tech 2<sup>nd</sup> year Dissertation: "Unsupervised Neural Networks For Image Processing"**

M.Tech Dissertation was done at Guru Gobind Sigh Indraprastha University (Govt. of NCT of Delhi), New Delhi, under the guidance of Prof. C.S. Rai, Dean, University School of Information, Communication, and Technology (USICT). This project aim is to present a system that can help to identify the image by analyzing a pair of images with the help of Kohonen Self Organizing Feature Map. This system classifies a given input (an image) and identifies it, known as Recognition System. In this Process test image is compare to all trained image database. The Simulation Results on image Recognition achieves the closeness of images i.e. similarity matching. This work can be very helpful in Fraud image detection.

- **B.TECH Project final year: "Question Paper Generator"**

**Project Abstract:** This website is intermediate between examination controller and teacher. The purpose is to enable the faculty to search for the specialization question. Using this website, users can place their requirements and hence can retrieve the information needed sitting at their place.

### Teaching Experience: Five Years (07)

- I have worked as Assistant Professor in Trinity Institute and Higher Education which is affiliated from Guru Gobind Singh Indraprastha University, New Delhi (2015-2016).
- I have worked as Assistant Professor in Computer Science Department in Baba Saheb Ambedkar Institute and Technology, Vikas Puri, New Delhi, since (2017-2019).
- I have worked as Assistant Professor (Guest Basis) in Department of Computer Science & Engineering, Gautam Buddha University, Greater Noida, Gautam Budh Nagar (UP), since 27 January 2020 to 10 march 2021.
- Currently I am working as Assistant Professor in Maharaja Surajmal Institute of Technology(MSIT) affiliated to GGSIPU University, New Delhi.

### Research & Publications

- 1 Sonica Upadhyay "Crypto Currency Price Predictor", *IJARESM*, vol. 10, ISSN:2455-6211.
- 2 Deepika Gupta, Vishnu Chauhan, Sonica Upadhyay, Manoj kumar Khanna, Rajesh kumar "General Methods for Fabrication of Sensing Devices", *Smart Nanostructure Materials and Sensor Technology*, ISBN 978-981-19-2685-3 , <https://doi.org/10.1007/978-981-19-2685-3>
- 3 Vishnu Chauhan, Deepika Gupta, **Sonica Upadhyay**, Jagjeevan Ram, Shalendra Kumar and Rajesh Kumar "Advancement of High-k ZrO2 for Potential Applications: A Review", *Journal (SCI)*, vol. 59, 811-826, 2021.
- 4 Deepika Gupta, Vishnu Chauhan, **Sonica Upadhyay**, N.Koratkar, Fouran Singh, Shalendra Kumar, Aman Mahajan, Ramesh Chandra, Rajesh Kumar "Defects Engineering and enhancement in optical and structural properties of 2D-MoS2 thin films by high energy ion beam irradiation" *Journal (Material Chemistry and Physics)*, Publisher(**ELSEVIER**) vol. 276(2022) 1245422, 2021, Impact Factor:4.5
- 5 Gupta, D., Sharma, S., **Upadhyay, S.**, Sharma, S. K., Chauhan, V., & Kumar, R. (2023). Ion-beam-induced Modifications of Nanocrystalline ZnO thin Films Grown by Atomic Layer Deposition. *Indian Journal of Engineering & Materials Sciences*, 30(2023).
- 6 Chauhan, V., Kumar, Y., Gupta, D., Sharma, A., Deepika, Upadhyay, S., & Kumar, R. (2023). Quantum dots and nanoparticles in light-emitting diodes and displays applications. In *Advanced Materials for Solid State Lighting* (pp. 253-277). Singapore: Springer Nature Singapore.
- 7 Gupta, D., **Upadhyay, S.**, Rana, A.S., Kumar, S., Deepika, Bharti, A., Malik, V.K., Sharma, S.K., Khanna, M.K. and Kumar, R., 2025. Enhanced Mobility in MoS2 Thin Film Transistors Through Kr Ion Beam-Generated Surface Defects. *Journal of Electronic Materials*, 54(1), pp.191-204.
- 8 Chauhan, V., Vashisht, G., Gupta, D., **Upadhyay, S.**, & Kumar, R. (2024). Metal oxides for plasmonic applications. In *Metal Oxides for Next-Generation Optoelectronic, Photonic, and Photovoltaic Applications* (pp. 477-510). Elsevier.
- 9 **Upadhyay, Sonica**, and Yogesh Kumar Gupta. "A Multi-Class Text Sentiment Analysis Using Artificial Neural Networks (ANNs)." *2025 7th International Conference on Information Systems and Computer Networks (ISCON)*. IEEE, 2025.
- 10 **Upadhyay, Sonica**, and Yogesh Kumar Gupta. "Customer Feedback Sentiment Analysis of Social Media Text Using Machine Learning Classifiers." *2025 2nd International Conference on Advanced Computing and Emerging Technologies (ACET)*. IEEE, 2025.
- 11 Upadhyay, Sonica, et al. "A Comprehensive Framework for Customer Segmentation and Predictive Analytics." *Available at SSRN 5037551* (2024).

- 12 Gupta, Deepika, et al. "Defects engineering and enhancement in optical and structural properties of 2D-MoS2 thin films by high energy ion beam irradiation." *Materials Chemistry and Physics* 276 (2022): 125422.
- 13 Chauhan, V., Gupta, D., **Upadhyay, S.**, Mahajan, A., Gaur, A., Kumar, S., & Kumar, R. (2022). Influence of high dose gamma radiation on optical, physico-chemical and surface morphology properties of nanocrystalline ZrO2 thin films. *Optical Materials*, 126, 112125.
- 14 Gupta, D., **Upadhyay, S.**, Rana, A. S., Kumar, S., Deepika, Bharti, A., ... & Kumar, R. (2025). Enhanced Mobility in MoS2 Thin Film Transistors Through Kr Ion Beam-Generated Surface Defects. *Journal of Electronic Materials*, 54(1), 191-204.
- 15 Chauhan, V., Vashisht, G., Gupta, D., **Upadhyay, S.**, & Kumar, R. (2024). Metal oxides for plasmonic applications. In *Metal Oxides for Next-Generation Optoelectronic, Photonic, and Photovoltaic Applications* (pp. 477-510). Elsevier.

#### Key Roles and Responsibilities :-

1. Member of R&D Cell
2. Member of Vision Magazine, MSIT
3. Departmental Newsletter Incharge
4. Departmental Library Incharge
5. Mentor, Proctor
6. Lab Incharge

#### PERSONAL PROFILE:

Name : **Sonica Upadhyay**  
Gender : Female  
Marital status : Single  
Nationality : Indian  
Father's Name : Shri. Ram Kumar Upadhyay  
Mother's Name : Smt. Suman Upadhyay  
Permanent Address : Flat No. K-403, K Block, Golf View Condos, Sector 19B, Dwarka New Delhi – 110078  
Hobbies : Listening to Music, Playing Badminton, Meditation, Reading Spritual books.  
Personal Strength : Self-confidence, Optimism, Hard working and Honesty.

**DECLARATION:** I hereby declare that all the details furnished above are true to the best of my knowledge and belief.

**Date:** 01-04-2026

(Signature)

**Place:** New Delhi

**Sonica Upadhyay**