

# Dr. SUSHMA R B

Assistant Professor, Department of Computer Science & Engineering (Data Science)  
Jawaharlal Nehru New College of Engineering (JNNCE), Shivamogga, Karnataka, India

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## Career Objective

To contribute to the field of computer science through quality teaching and impactful research, with a focus on deep learning and data security, while guiding and inspiring students to achieve academic and professional success.

## Academic Qualifications

- Ph.D. “Design and Implementation of Steganographic Techniques to Secure data for Next Generation Networks.” VTU , 2025
- M.Tech in Computer Science & Engineering, BIT, Davangere, VTU Belagavi – 2013
- B.E. in Computer Science & Engineering, BNM Institute of Technology, Bangalore, VTU Belagavi-2008

## Professional Experience

- Assistant Professor, Department of Computer Science & Engineering (Data Science), JNNCE, Shivamogga (2024 – Present)
- Assistant Professor, Department of Computer Science & Engineering JNNCE, Shivamogga (2014 – 2024)
- Lecturer, Department of Computer Science & Engineering JNNCE, Shivamogga (2010 – 2014)

## **PATENT Published:**

Application No.: 202341038568

Date of Filing: 05/06/2023

Applicants Name: 1. Dr. Manjula G R, 2. Dr. Sushma R B

Title of Invention: Live Video Steganography Using Machine Learning and Morlet Wavelets.

Field of Invention: Computer Science

Publication Date (U/S 11 A): 18/08/2023

## **Subjects Taught**

Database Management systems, Discrete Mathematical Structures, Data Structures, Introduction to Big Data Analytics, No SQL, Computer Networks, Computer Graphics and visualization, Cryptography and Network Security, Analysis and Design of Algorithms, Computer Organization, Data Communication, Artificial Intelligence and Machine Learning, Advanced Computer Architecture.

## **Professional Responsibilities handled**

- Involved in SAR preparation for NBA and NAAC
- Timetable Co-Ordinator, Project Co-Ordinator and Seminar Co-Ordinator in CS&E Dept and CS&E(Data Science) Dept.
- Worked as Project Coordinator and effectively organized the "I2CONECCT" state-level project exhibition under IEEE,

## **Papers Published:**

- [1] Sushma R B, Manjula G R, Manjula C. Belavagi, "A Mellin transform based video steganography with improved resistance to deep learning steganalysis for next generation networks", **MethodsX**, Volume 13,2024,102887,ISSN 2215-0161,<https://doi.org/10.1016/j.mex.2024.102887>. (**Q1 Journal - Scopus Indexed**).
- [2] Sushma RB, Manjula GR. StegVRN: Enhancing Quality of Video Steganography Using CNN-Based Object Selection. SN Computer Science. 2024 Jan 20;5(2):227. ( **Q1 Journal - Scopus Indexed**)
- [3] Sushma R B, Manjula G R, "An Adaptive Steganography approach for live video streams based on edge analysis and frame variability", ICRAIS-2023, MIT, Manipal during 6th to 7th November 2023.

- [4] G R, Manjula, and Sushma R B. "Video steganography: a survey of techniques and methodologies." Proceedings of the International Conference on Smart Data Intelligence (ICSMDI 2021). 2021.
- [5] Sushma R B, Manjula G R, "Hiding of text tunes in video", International Journal of Emerging Technology and Advanced Engineering, ISSN 2250-2459, Volume 10, Issue 8, pg 32-40. Published Online August 2020 in IJETAE. (**SCOPUS INDEXED**).
- [6] Sushma R B, Manjula G R, "DNA Based Steganography using 2-3-3 technique" has been presented in 2019 IEEE international Conference on data science and communication held during 1<sup>st</sup> and 2<sup>nd</sup> Mar 2019 held at, Christ College of Engineering, Bangalore.

### **Research Interests**

- Image and Video Steganography
- Deep Learning and Neural Networks
- Information Security
- Transform Domain Embedding Techniques
- Steganalysis and Covert Communication

### **Declaration**

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

**Dr. Sushma R B**