



**(Dr. Satish Kumar)**

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**[Google Scholar](#) | [Orcid Id](#) | [Researchgate](#) | [linked in](#)**

## **PROFILE**

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### **Profile Summary:**

- **Academic and Research Expertise:** Over 6 years of research experience and 2 years of teaching experience in computer science and information technology.
- **Specializations:** Proficient in Medical Image Security, Healthcare Security, Cybersecurity, Cloud Computing, Machine Learning, and Soft Computing.
- **Research Proficiency:** Strong expertise in Multi-Criteria Decision Making (MCDM) and Medical Image Security.
- **Publications:** Extensive publication record in reputed journals, including IEEE, Springer, and Taylor & Francis.
- **Teaching and Mentorship:** Skilled in guiding students in both theoretical and practical aspects of computing.
- **Research Tools:** Experienced with tools such as GNU Octave (GUI), SciSpace and MINITAB for data analysis, implementation, and validation.
- **Focus on Sustainability:** Passionate about leveraging MCDM, ML, and AI for sustainable development and addressing global challenges.
- **Cybersecurity Applications:** Hands-on experience in developing cybersecurity frameworks for Medical Image Security and Precision Agriculture systems.

### **RESEARCH INTEREST:**

- Information Security
- Healthcare Security
- Medical Image Security
- Cloud Data Security

### **SUMMARY OF RESEARCH ACCOMPLISHMENT:**

- I have over 6 years of research experience in Medical Image Security, MCDM, and cloud computing, with several publications in reputed journals like Springer, IEEE, and Taylor & Francis. My work focuses on:
  - Medical Image Security

- Information Security
- Cybersecurity in Precision Agriculture
- **My doctoral thesis,**
  - **Titled:** “Improving Security of Medical Image Transmission Using Hybrid Fuzzy-AHP Approach” from Babasaheb Bhimrao Ambedkar University (A Central University), Lucknow, India.

**PROFESSIONAL MEMBERSHIP:**

- International Association of Engineers (IAENG) Professional Membership (Member Number: 363201). ([www.iaeng.org/membership.html](http://www.iaeng.org/membership.html)).

**COURSE TAUGHT:**

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- Cloud Computing
- C++
- Java
- DBMS

**ADMINISTRATIVE/DEPARTMENTAL RESPONSIBILITY**

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- Member of Criteria IV: Infrastructure and Learning Resources.
- Member of Time-Table Departmental Committee.
- Member Secretary of Integral Learning Initiative-Learning Management System (ILI-LMS) Departmental Committee.
- Mentors of the Center for Career Guidance & Development (CCG&D) for Student Career Tracking at the Department Level.
- Member of departmental Sport Committee.
- Course Coordinators of BCA and MCA.

**STUDENTS SUPERVISION**

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Program	Completed
MCA	4

**PUBLISHED/ACCEPTED SCI/SCOPUS RESEARCH PAPERS**

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1. Satish Kumar, et al. (2020). Enhancement of two-tier ATM security mechanism: towards providing a real-time solution for network issues. International Journal of Advanced Computer Science and Applications, 11(7).
2. Satish Kumar, et al. "The Security of Transforming Digital Medical Images Using RDWT, HT, and SVD Techniques." Harbin Gongye Daxue Xuebao/Journal of Harbin Institute of Technology 54.10 (2022): 270-276.
3. Satish Kumar, et al. (2024, January). Evaluating the security of medical images through a fuzzy AHP-based hybrid approach. “Journal of intelligence & Fuzzy System” (**SCI, Accepted**).
4. Satish Kumar, et al. (2024, May). Optimizing Medical Image Security Through Soft Computing and Advanced Transmission Techniques. Journal of Imaging Informatics in Medicine (**SCI, Accepted**).

5. Satish Kumar, et al. (2024, September). Soft Computing-Driven Framework for Enhanced Security in Medical Image Transmission. "Proceedings of the National Academy of Sciences, India Section A: Physical Sciences." (**Scopus, Accepted**).
6. Satish Kumar, et al. (2024, June). Analyzing the Impact of Medical Image Security using Unified Cryptography, Steganography and Watermarking Techniques. "International Journal of Information Technology" (**Scopus, Communicated**).

#### **PAPER PUBLISHED IN INTERNATIONAL CONFERENCES**

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7. Satish Kumar, et al. "DCT and SVD-based Watermarking Technique for Imperceptibility and Robustness of Medical Images." 2022 4th International Conference on Advances in Computing, Communication Control and Networking (ICAC3N). IEEE, 2022.
8. Satish Kumar, et al. (2022, December). Securing Transmission of Medical Images Using Cryptography Steganography and Watermarking Technique. In International Conference on Cryptology & Network Security with Machine Learning (pp. 407-420). Singapore: Springer Nature Singapore.
9. Satish Kumar, et al. (2023, September). Comprehensive Analysis of Cloud Security: Issues & Challenges. In 2023 6th International Conference on Contemporary Computing and Informatics (IC3I) (Vol. 6, pp. 622-627). IEEE.
10. Satish Kumar, et al. (2023, September). Prioritization of Medical Image Security Features: Fuzzy AHP Approaches. In 2023 6th International Conference on Contemporary Computing and Informatics (IC3I) (Vol. 6, pp. 540-545). IEEE.
11. Satish Kumar, et al. (2023, November). Enhancing Security of Medical Image Transmission: An Innovative Fuzzy-AHP Approach. In International Conference on Trends in Computational and Cognitive Engineering (pp. 471-483). Singapore: Springer Nature Singapore.
12. Satish Kumar, et al. (2024, January). Diabetes Classification and Prediction Through Integrated SVM-GA. In Recent Advances in Computational Intelligence and Cyber Security: The International Conference on Computational Intelligence and Cyber Security (p. 96). CRC Press.

#### **BOOK CHAPTERS**

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1. Satish kumar et. al. (2024, March). Improving the Hardware Security of Wireless Sensor Network System by Using Soft Computing. Bentham Science Publishers. (**Accepted**).
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