

LAXMANIKA

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EDUCATION QUALIFICATIONS

- Doctorate of Philosophy (PhD) in Computer Science & Engineering from Jaypee University of Information Technology, Solan, Himachal Pradesh, (Thesis Submitted).
 - ✓ **Area of Research:** Image Processing and watermarking
- **Thesis Title:** Robust and Secure watermarking scheme for multimedia data against various attacks
- M. Tech in Computer Science & Engineering from, Galgotias University, Greater Noida, U.P. Year of awarded: 2015.
 - ✓ **Area of Research:** Computer Networking
- **Thesis Title:** Security Enhancement of DSR protocol on mobile ad-hoc Network
- B. Tech in Information Technology from AKTU, U.P. Year of awarded: 2012.

WORKING EXPERIENCE

- Working as faculty in School of Computing in Indian Institute of Information Technology Una, Saloh, Una since June 2, 2023 to till date.
- Worked as Assistant Professor in Rayat-Bahra Institute of Engineering & Nano Technology, Hoshiarpur from 26 August 2022 to 31 May 2023.
- Worked as Assistant Professor in the Department of CSE at G.L. Bajaj Institute of Technology and Management, Greater Noida from November 2021 to 31 May 2022.
- Worked as Visiting faculty from November 2020 to August 2021 in IET, AGRA.
- Worked as an Assistant professor from Aug 2015 to June 2017 in Kunwar Satya Veera College of engineering and management, Bijnor, U.P.
- Worked as a Lecturer from Aug 2012 to June 2013 in VKIT, Bijnor, U.P.

RESEARCH AREA

- Digital Image Processing
- Watermarking
- Computer Networks

COURSES TAUGHT

- DATA STRUCTURES AND ALGORITHMS
- SOFTWARE ENGINEERING
- OPERATING SYSTEM
- IMAGE PROCESSING
- PROBLEM SOLVING AND PROGRAMMING IN C
- DATA MINING AND WAREHOUSING
- SOFTWARE TESTING AND QUALITY ASSURANCE
- WEB TECHNOLOGY
- MACHINE LEARNING

RESEARCH PUBLICATIONS

➤ SCI/SCIE Journal Publications

1. **Singh, L.**, Singh A. K., & Singh, P. K. (2020). Secure data hiding techniques: a survey. *Multimedia Tools and Applications*, 79(23), 15901-15921. [SCI Indexed, IF=2.757].
2. **Singh L**, Singh P. K. (2021) “A robust image watermarking through SVD-DCT and BEMD in Wavelet domain based on PSO” *Multimedia Tools and application*, 81(16), 22001-26. [SCI Indexed, IF=2.757].
3. **Singh L**, Singh P. K. & Sidhu J. (2021) “A proposed secure watermarking technique based on BEMD, SVD and Arnold transform in wavelet domain”, *International Journal of Systems Assurance Engineering and Management (IJSA)*, Springer [Scopus] DOI: <https://doi.org/10.1007/s13198-022-01732-z>.
4. **Singh L**, Singh P. K. & Sidhu J. (2022) “Comparison based on the basis of applications of various transform techniques based on watermarking” *Journal of Computing Science and Engineering*, JCSE. [Communicated]

➤ Book Chapter Publication

1. Published chapter “An efficient image watermarking through BEMD and discrete cosine domain based on PSO” In *Innovations in Information and Communication Technologies (IICT-2021)* (Springer)
Link: DOI: https://doi.org/10.1007/978-3-030-66218-9_56
2. Published chapter “A Robust Image Watermarking Through Bi-empirical Mode Decomposition and Discrete Wavelet Domain” In *Lecture Notes in Electrical Engineering* book series (LNEE, Volume 605) (ICETIT 2019) (Springer) DOI: https://doi.org/10.1007/978-3-030-30577-2_92

➤ **Conference Publication**

1. **Singh L**, Singh A. K., & Singh P. K. (2020). A Robust Image Watermarking Through Bi-empirical Mode Decomposition and Discrete Wavelet Domain. In Proceedings of ICETIT 2019. Springer, pp. 1041-1054 DOI: https://doi.org/10.1007/978-3-030-30577-2_92.
2. **Singh L** & Singh P. K. (2021) “An efficient image watermarking through BEMD and discrete cosine domain based on PSO”, In Proceedings of IICT 2020, Springer, pp: 469-474 DOI: https://doi.org/10.1007/978-3-030-66218-9_56
3. **Singh L**, Singh A. K & Singh P. K. (2018). Image Processing Techniques for Forestry applications. 3rd Himachal Pradesh science congress (HIMCOSTE) at IIT Mandi. (Abstract presentation)

