



Sakshi Singh

 : 0009-0004-0437-5835
Scopus ID: 60623603100
 VIDWAN : 616540

Assistant Professor - PhD Scholar (CSE)
sakshisingh161b191@gmail.com

Profile

I am an Assistant Professor and PhD Scholar in Computer Science & Engineering with over six years of combined teaching, research, and industry experience. I currently serve in the Department of Computer Science & Engineering at The ICFAI University, Jaipur, while pursuing doctoral research at IIIT Ranchi. My career reflects a steady progression from telecom engineering into academia and research, marked by a consistent commitment to student mentorship, curriculum development, and the pursuit of original, publishable research.

My academic foundation began with a Bachelor of Technology in Computer Science & Engineering from Jaypee University of Engineering & Technology (JUET), Guna, completed in 2020. I went on to earn a Master of Technology in Computer Science & Engineering from Rajiv Gandhi Proudyogiki Vishwavidyalaya (RGPV), Bhopal, in 2024, before being admitted to the doctoral programme at IIIT Ranchi in 2025. This progression from a strong undergraduate grounding through applied postgraduate study to independent doctoral inquiry reflects my sustained dedication to advancing my expertise in computer science and emerging artificial intelligence technologies.

At the heart of my doctoral work lies my dissertation, "Feature-Based Image Registration Using Quantum-Inspired Metaheuristic Optimization," which explores how principles drawn from quantum computing can be adapted into metaheuristic optimization frameworks to improve the accuracy and efficiency of image registration. This research sits at the intersection of computer vision, optimization theory, and quantum-inspired computing, and reflects my broader interest in applying novel computational paradigms to longstanding problems in image analysis and pattern recognition.

My research output is already reflected in three Scopus-indexed conference publications spanning artificial intelligence, large language models, and secure networks. My paper "Quantum-Resistant Artificial Intelligence Algorithms for Secure Networks" was presented at the 7th International Conference on Information Management & Machine Intelligence (ICIMMI '25), published by ACM. I also co-authored "Multimodal Information Fusion for Intelligent Disaster Response Systems"

and "Evaluating the Role of LLMs in Enhancing Chatbot Responsiveness for Customer Service Applications," both presented at the 5th MAHSA International Conference on Industrial Revolution, Information & Communication Technology (MI-IRICT 2025) and published by IEEE. Together, these papers reflect a research agenda that bridges security, disaster-response systems, and the practical deployment of large language models.

As Assistant Professor at The ICFAI University, Jaipur, since February 2025, I teach undergraduate courses in Computer Science & Engineering, delivering both theoretical grounding and practical instruction, while also contributing to curriculum planning and academic mentoring. This role builds on my earlier position as Research Scholar and Lecturer in CSE at VITS Satna between April 2022 and February 2025, where I combined full teaching responsibilities with active research, laying the foundation for my subsequent doctoral study.

Before moving into academia, I built a solid foundation in the telecommunications industry. At Ericsson, Noida, I worked first as an Intern in the RAN domain across 2G, 3G, and 4G networks, gaining hands-on experience in radio KPI optimization and RSSI analysis, and later as a Domain Support Specialist monitoring applications through the Netcool tool and tracking incidents via BMC Remedy. I subsequently worked as a Network Engineer at Orcapod, contributing to system design, configuration, and performance optimization on live networking projects. My industrial project experience also includes application production support and process auditing for Telstra, and root-cause analysis of batch job failures along with end-to-end process documentation for Indosat.

I continue to invest in emerging technologies through numerous certifications and Faculty Development Programmes, including coursework in large language models, agentic AI, MCP and A2A enterprise protocols, generative AI fluency, and TensorFlow for machine learning, alongside foundational training in Python, SQL, and Tableau, and Android development with Compose. My technical skill set spans programming and data tools such as Python, SQL, and Linux; AI/ML and emerging technologies including machine learning, generative AI, LLMs, and agentic AI frameworks; and platforms such as Tableau, Netcool, and BMC Remedy. In recognition of my service to the academic community, I have also received the Unnat Bharat Abhiyan (UBA) Certificate for organizing and coordinating UBA activities at my college.