

MOHIT JOSHI

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Hometown: Almora, Uttarakhand
Permanent Address: Lucknow, Uttar Pradesh
Current Location: Varanasi, Uttar Pradesh



Career Objective

- To contribute to academic excellence through effective teaching, student mentorship, and continuous learning.
- To utilize my expertise in Quantum Computing and Computer Science to provide quality education and foster innovation among students.
- I have successfully completed the Pre-PhD Seminar (thesis proposal defense) and am currently in the final stage of PhD thesis submission.

Education

Doctor of Philosophy in Computer Science (Pursuing)

March 2022 – Present, Varanasi, Uttar Pradesh, India

Currently pursuing a Ph.D. in Computer Science from Banaras Hindu University (BHU), A Central University, focusing on Quantum Computing.

Master of Science in Information Technology

2019 - June 2021, Uttar Pradesh, India

Completed my Master's in Information Technology with a Gold Medal in 2021 from Babasaheb Bhimrao Ambedkar University (A Central University).

Bachelor of Science in Maths

2016-2019, Uttar Pradesh, India

Completed my Bachelor's degree in Math, Physics, and Computer Science from NPGC, affiliated with Lucknow University.

Publications

1. **Joshi, M., Mishra, M.K. & Karthikeyan, S.** *Universal blind quantum computation with recursive rotation gates.* *Quantum Inf Process* 25, 168 (2026). (SCIE, Q2, IF 2.2)
2. **Joshi, M. Mishra, M. K., and Karthikeyan S.** "Quantum computing on encrypted data with arbitrary rotation gates." *Physica Scripta* (2025). (SCIE, Q2, IF 2.6)
3. **Joshi, M., Mishra, M.K., & Karthikeyan, S.** *Impact of hardware connectivity on Grover's algorithm in the NISQ era.* *Quantum Inf Process* 24, 118 (2025). (SCIE, Q2, IF 2.2)
4. **Joshi, M., Mishra, M.K., & Karthikeyan, S.** *Leveraging Grover's Algorithm for Quantum Searchable Encryption in Cloud Infrastructure and its application in AES Resource Estimation.* *Int J Theor Phys* 63, 209 (2024). (SCIE, Q3, IF 1.7)
5. **Joshi, M., Karthikeyan S., and Mishra M. K.** *Recent trends and open challenges in*

blind quantum computation. *International Conference on Advanced Network Technologies and Intelligent Computing*. Cham: Springer Nature Switzerland, 2022. (Conf.)

6. **Joshi, M.,** Mishra, M. K., Karthikeyan, S. "Impact of Noise and Hardware Connectivity on Grover's Quantum Search algorithm in NISQ Devices." *Second Workshop on Applications of Computational Intelligence and Interactive Systems (2024)*. (Conf.)
7. **Joshi, M.,** Mishra, M.K., Karthikeyan, S. (2026). Performance of Circuit-Based Blind Quantum Computation in NISQ Era. In: Shastri, A., Singh, R., Tiwary, U.S., Singh, D. (eds) *Intelligent Human Computer Interaction. IHCI 2025. Lecture Notes in Computer Science*, vol 16436. Springer, Cham. (Conf.)
8. **Joshi, M.,** and Manoj Kumar Mishra. "Quantum computing and new dimensions in network security." *Computational Intelligence Applications in Cyber Security*. CRC Press, 2024. 234-246. (Book Ch.)
9. **Joshi M.,** Mishra M. K., and Karthikeyan S. 'Quadratically fast searching in quantum computing: an overview', *Research Advances in Network Technologies*, Vol. 3, CRC Press (2026). (Book Ch.)

Invited Lectures

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- Delivered a technical talk on "Introduction to Secure Computing with Blind Quantum Computation" at RNS Institute of Technology, Bangalore, on April 18, 2026.
 - Delivered two-day invited lectures on 'Quantum Computing Algorithms' in 'Quantum Computing Bootcamp' organized by Bapatla Engineering College, Andhra Pradesh, between March 22-28, 2026.
 - Delivered a special lecture as guest speaker on 'Applications of Grover Algorithm' at QSilver28, organized QNepal Initiative.
 - Delivered invited talks on 'Grover's algorithm and Blind Quantum Computation' in the Faculty Development Program organized by Sastra University during June 30 and July 05, 2025.

Achievements

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- Recipient of **Junior Research Fellowship** by qualifying the National Eligibility Test organized by the University Grant Commission in December 2020- June 2021 merged cycle.
 - Qualified **Graduate Aptitude Test in Engineering (GATE) – Computer Science and Information Technology (CS)** conducted by the Indian Institute of Science, Bangalore, in 2024.
 - Qualified **Graduate Aptitude Test in Engineering (GATE) – Data Science and Artificial Intelligence (DA)** conducted by the Indian Institute of Science, Bangalore, in 2024.
 - **Gold medallist** in a Master's degree in Information Technology from Babasaheb Bhimrao Ambedkar University.
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