

Anindita is a Senior Quantum Technologist at CDAC Pune who leads various quantum-related initiatives of CDAC. At present, she is working on fiber QKD, QRNG, and aerial quantum communication platforms. In the area of quantum computing, she is working on different quantum computing applications on accelerated platforms. Earlier, she worked as Quantum Research Head and VP at QuNu Labs Pvt Ltd, focusing on quantum-safe solutions for cybersecurity. At QuNu Labs, she developed India's first fiber-based QKD system from TRL 2 to TRL 6. Specifically, she realized the distributed phase reference protocols for QKD in fiber-based systems. She was also involved in theoretical security proofs, simulation, and key rate analysis. Further, she developed India's first QRNG based on Time-of-Arrival and mixed QRNG. Further, during her PhD, Anindita had developed novel quantum communication protocols and worked on the synthesis and optimization of quantum circuits. As a post-doctoral fellow, she established a quantum optics lab in the Bose Institute, Kolkata, and conducted some foundational experiments. The products developed by her are tested by various government and industry organizations. She has already received 4 US and 1 Indian patents as recognition of her success in converting academic research into useful products. She has also written several well-cited research papers.

She leads a team of young researchers in Pune. She has trained many scientists and student interns over the years. She has also co-authored a book published by SPIE (Optical quantum information and quantum communication, A. Pathak and A. Banerjee, SPIE Spotlight Series, SPIE Press (2016) ISBN: 9781510602212), which has helped many researchers and students to learn the basics of optical quantum information. She is part of the AICTE committees that developed courses for a minor degree and MTech degree in Quantum Technologies. She has also developed course materials called CAKES for CDAC employees interested to learn quantum technologies. She has also delivered a TED talk and several invited talks to promote and popularize the area of quantum information in India. In addition, the following may be noted.