



इलेक्ट्रॉनिकी एवं  
सूचना प्रौद्योगिकी मंत्रालय  
MINISTRY OF  
ELECTRONICS AND  
INFORMATION TECHNOLOGY

Ideation & Innovation



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# SHORT TERM COURSE ON POST - QUANTUM CRYPTOGRAPHY

UNDER ISEA PHASE-3

ORGANIZED BY IIIT BHUBANESWAR

VLIT / ONLINE MODE

20TH MARCH - 22ND MARCH 2025

## ABOUT THE PROGRAM :

This intensive short-term training program is designed to provide participants with a deep understanding of the emerging field of Post-Quantum Cryptography [PQC]. As quantum computing rapidly advances, traditional cryptographic systems that form the backbone of modern security infrastructures are becoming increasingly vulnerable. This program aims to equip professionals with the knowledge and skills necessary to understand, implement, and adapt cryptographic systems in a post-quantum world.



### Objectives

- The program aims to foster a deeper understanding of quantum computing's potential and prepare participants to take proactive measures in securing their digital environments against the coming wave of quantum threats.
- This will Enable participants to identify and address quantum security risks in their current cryptographic infrastructures and plan for future-proofing their systems.
- Learn about the latest advancements in post-quantum cryptography, focusing on algorithms that are resistant to quantum-based attacks, such as lattice-based, hash-based, and code-based cryptography.
- Upon completion, participants will be well-equipped to contribute to the development and deployment of secure, quantum-resistant systems, ensuring long-term data protection in a quantum computing era.



### Expected Outcomes

## ABOUT IIIT BHUBANESWAR :

International Institute of Information Technology (IIIT), Bhubaneswar is a premier institute established to promote education, research, and innovation in the field of Information Technology and allied disciplines. The institute is dedicated to fostering a culture of innovation, research excellence, and entrepreneurship, with a strong emphasis on emerging technologies like Artificial Intelligence, Cybersecurity, Data Science, and Internet of Things.

Website Link : <https://tinyurl.com/STC-IIITBH>

## REGISTRATION :



<https://tinyurl.com/ISEA-STC2025-IIIT-BH>



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## WHO CAN APPLY :



The Short-Term Course on "Post-Quantum Cryptography", scheduled to be held at IIIT Bhubaneswar from March 20–22, 2025, is open to the following participants:

- Students – B.Tech, M.Tech, and Ph.D. students from Computer Science, Electronics, and related fields interested in cryptography and cybersecurity.
- Faculty Members – Professors, lecturers, and researchers looking to enhance their knowledge of post-quantum cryptographic techniques.
- Industry Professionals – Cybersecurity experts, IT professionals, and engineers working in encryption, network security, and cryptographic applications.

## CONTENTS:

- Introduction to Cryptography & Quantum Computing
- Post-Quantum Cryptographic Algorithms & Implementations
- Lattice-Based Cryptography
- Code-Based Cryptography
- Real-World Applications & Future of PQC
- Industry Trends & Future Research Directions
- Final Hands-on & Q&A Session

## COORDINATORS:

Ms. Sucharita Mohanty ( Coordinator )  
Email : sucharita@iiit-bh.ac.in

Mr. Ashutosh Mallik ( Coordinator )  
Email : ashutosh@iiit-bh.ac.in

## IMPORTANT DATES :

Registration Starts : 20/02/25

Registration Ends : 15/03/25

Intimation of Selection : 16/03/25

## ORGANIZING COMMITTEE :

Prof. Ashish Ghosh ( Director, IIIT Bhubaneswar ) - Chief Patron  
Dr. Debasish Jena (Associate Professor, IIIT Bhubaneswar) - General Chair  
Dr. Srichandan Sobhanayak ( Assistant Professor, IIIT Bhubaneswar ) - Convenor

## VENUE :



INTERNATIONAL INSTITUTE OF INFORMATION TECHNOLOGY, (IIIT) BHUBANESWAR

## DATE:



20TH MARCH 2025 - 22ND MARCH 2025

## CONTACT US :

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