

# CERTIFICATE COURSE

**AICTE ATAL sponsored 6-Days**

**Online FDP**

**on**

**Recent Advances in**

**Quantum Technology and its Applications**



## Introduction and Background

The AICTE ATAL Online FDP on Recent Advances in Quantum Technology and its Applications aims to provide a comprehensive understanding of the emerging quantum revolution. With rapid advancements in quantum computing, quantum communication, and quantum sensing, it is crucial to equip faculty members and researchers with foundational knowledge and practical insights into these transformative technologies. This FDP will cover the theoretical principles of quantum mechanics, hands-on simulation tools, and recent research trends shaping the future of information processing and secure communication. The program is designed to bridge the gap between classical technologies and quantum innovations, fostering interdisciplinary learning. Participants will benefit from expert lectures, interactive sessions, and real-world applications of quantum technologies.

## About ABV-IIITM Gwalior

Atal Bihari Vajpayee Indian Institute of Information Technology & Management (ABV-IIITM), Gwalior, was established in 1997 by the Ministry of Human Resource Development, Government of India. It is a premier institute known for excellence in Information Technology and Management education. Located in Gwalior, Madhya Pradesh, the institute promotes a vibrant academic culture rooted in research and innovation. ABV-IIITM maintains strong industry linkages, encouraging real-world learning and collaboration. It has been accredited with a NAAC 'A' grade and holds the status of an Institute of National Importance. The institute strives to create future-ready professionals through cutting-edge curriculum and interdisciplinary learning. Its mission is to integrate technology, management, and research for societal and industrial impact.

**ABV-Indian Institute of  
Information Technology and  
Management, (ABV-IIITM)  
Gwalior, MP, India**

**(An Institute of National Importance,  
Ministry of Education, Govt. of India)**

**24 - 29 November 2025**

**Online Mode Only**



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## Organized By



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## Course Objectives

- To introduce the fundamental principles of quantum mechanics relevant to quantum technologies.
- To explore the architecture and algorithms of quantum computing systems.
- To familiarize participants with quantum communication protocols and secure information transfer.
- To provide hands-on training using quantum simulation tools such as Qiskit.
- To discuss the latest research developments and applications in quantum technologies.
- To encourage interdisciplinary research and collaborative opportunities in quantum science.
- To build capacity among faculty for integrating quantum technologies into teaching and curriculum development.



# ATAL Academy

AICTE is committed to the development of quality technical education in the country by initiating various schemes launched by Govt. of India, Ministry of Human Resource Development. The council understands that there is an urgent need to train the young generation and enhance their skills in these core areas, hence the need is there to train the faculties and technicians in this area. It was felt that Training with the latest tools and technologies is vital to keeping an institute competitive and more productive. Training is required for increasing the knowledge and skills of students to make them more employable to acquire global competencies. It also transforms them to harmonize with society and most importantly to make them good citizens of the country.

## Test and Certificate

- A test shall be conducted (online) by coordinator at the end of the program.
- The certificates shall be issued to those participants who are registered on ATAL portal (<https://atalacademy.aicte-india.org/signup>) and attend the program with minimum 80% attendance and score minimum 70% marks in the test.
- Feedback must be shared by participants through portal available on their login.

## Eligibility

This course is open to all Faculty, Staff, and Ph.D. scholars of the AICTE approved institutions and Industry Personnel seeking to obtain an in-depth knowledge of Quantum Technologies.

**Intake:** - Limited Seats

**Duration:** 6-Days (24/11/2025 to 29/11/2025)

**Mode:** Online

## Chief Patron

Prof. S. N. Singh, Director,  
ABV-IIITM Gwalior, MP

## Patron

Prof. Rajendra Kumar Sahu, Dean (Research and Consultancy), ABV-IIITM Gwalior, MP

## Program Coordinator

Prof. Pankaj Srivastava, Department of Engineering Sciences, ABV-IIITM Gwalior, MP

## Program Co-coordinator

Dr. Gaurav Pandey, Department of Electrical and Electronics Engineering (EEE) , ABV-IIITM Gwalior

## Resource Persons

- Dr. Santu Sardar, DYSL-Quantum Technologies, DRDO, Pune
- Dr. Ajay Wasan, ECE Department, IIT Roorkee
- Dr. Amit Chauhan, QNu Labs, Bangaluru
- Dr. Neel Kanth Kundu, CARE, IIT Delhi
- Prof. Arul Lakshminarayan, IIT Madras, Chennai
- Dr. Rajiv Krishna Kumar, QuantumBasel, Basel, Switzerland
- Dr. Sandeep Kumar Singh, IIT Roorkee
- Dr. Satyendra Kumar Mishra, CTTC, Spain
- Dr. M. H. Rahman, DRDO DIA-CoE, IIT Delhi
- Dr. Harish Sahu, DRDO Delhi
- Dr. S. Adhikari, DTU Delhi
- Prof. Pankaj Srivastava, ABV-IIITM Gwalior, MP
- Dr. Gaurav Pandey, ABV-IIITM Gwalior, MP

## Online Delivery

Online Platform links will be shared with the Registered candidates via email.

## Registration Details

- **All Participants: Free**
- **Registration link:** Please fill out registration using the following link. [Registration Form](#)

**Title: Recent Advances in Quantum Technology and its Applications**

**Application No: 1748602720**

**Mode of FDP: Online**

## Steps for Registration

Interested participants can register using the following link:

**<https://atalacademy.aicte-india.org/login>**

Step 1: Sign-Up

Step 2: Select the Role '*Participant*'

Step 3: Click on FDPs

Step 4: Select FDP Type – *ATAL Online*

Step 5: Select Month- *November*

Step 6: Select Thrust Area- *Engineering and Management*

Step 7: Select Mode- *Online*

Step 8: Select *Faculty Development on "Recent Advances in Quantum Technology and its Applications"*

Step 9: Click the *plus sign* button to register

Step 10: . Upload the NOC as per format given in ATAL website and Apply



## Contact Details

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