

About Electronics & ICT Academy at



PDPM IIITDM Jabalpur

The Ministry of Electronics and Information Technology (MeitY), Government of India has instituted Electronics and ICT Academies in the year 2015. In the second phase, the academy at PDPM IIITDM Jabalpur aims at scalable training programmes in niche areas of Electronics and ICT for the development of the required knowledge base, skills and tools to unleash the talent of the Indian population. The Academy is identified by the MeitY as a hub of activities for capacity building through training, internships, research, and consultancy programmes in fundamental and advanced topics in electronics, information and communication technologies, the Academy conducts customized academic programmes for students, corporate sectors and researchers.

About Thapar Institute of Engineering and Technology, Patiala

The Thapar Institute of Engineering and Technology (TIET) is one of the premier educational institutions across the world, which provides a steady source of highly skilled talent. Founded in 1956 with a campus spread across sprawling 250 acres, TIET, located in Patiala, Punjab has been a pioneer in engineering education, research and innovation. Our community involves ingenious mind solvers who are eager to make the world a better place.

Faculty Development Programme

The goal of this FDP is to bring together renowned experts conducting pioneering research in the field of Quantum Computing for disseminating knowledge to faculty members, research scholars, and post-graduate students who want to explore this new technological frontier. The professionals will share their knowledge and experience to motivate participants in the fields of Quantum Computing.

Who can attend: Suitable for faculty from colleges, universities, and technical and professional institutes can attend. Students, fresh graduates, researchers, and industry personnel working in allied disciplines can also attend.

Important Dates

FDP Dates: November 17-22, 2025

Last Date of Online Registration: 15/11/2025

Timings: 09 AM to 01 PM & 02 PM to 06 PM

Coordinators

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(Mr Ashvarya Agrawal)

Faculty Development Programme

On

Quantum Computing

17-22 November 2025 (Online Mode)

Jointly Organized by



THAPAR INSTITUTE
OF ENGINEERING & TECHNOLOGY
(Deemed to be University)

Thapar Institute of Engineering and
Technology, Patiala, Punjab



and



Electronics and ICT Academy
PDPM IIITDM Jabalpur

*An Initiative of the Ministry of
Electronics and Information Technology,
Government of India*



Faculty Development Programme
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Resource Persons

- Prof. Bimalendu Deb, IACS
- Prof. Goutam Paul, ISI Kolkata
- Prof. Umakant Rapol, IISER Pune
- Dr. Jaskaran Singh, IIT Mandi
- Dr. Amit D. Lad, IIT Mandi
- Dr. Vaibhav Gupta, IIT Mandi
- Dr. Arun B Alosious, IIT Guwahati
- Dr. Ritajit Majumdar, IBM Quantum
- Dr. Debasmita Bhounik, IBM Quantum

Other Eminent Personnel from IITs, IIITs, NITs, and Industry experts shall deliver lectures and hands-on sessions

Course Contents

- Quantum Machine Learning
- Photonic Quantum Computing
- Quantum Error Correction
- Linear Optical based Quantum Computation
- Building Qbits with Trapped Ions
- Quantum Communication

Hands-On Sessions

- Basics of QML and hybrid quantum classical models using quantum classifier like Qiskit/Penny Lane
- Introduction to photonic qubits and linear optics Use Strawberry Fields (Xanadu) or similar simulator
- Introduce bit-flip and phase-flip errors using 3-qubit repetition code in Qiskit
- Basics of quantum key distribution (QKD) using BB84 protocol in simulation (Qiskit or QuNetSim)
- Simulate noisy channels and show how error correction improves fidelity

Programme Features

- Rigorous training for theoretical and practical knowledge on Big Data and its analysis
- Opportunities to connect with experts in the field.
- Instructor-led rigorous hands-on sessions
- Certificate on successful completion with full access to the course material.

Registration Details

- Registration link – Please fill out registration using the following link:
<https://forms.gle/nij2Eq6ePcm6F96CA>
- **Registration fee:** INR 500/ for online participation.
- **Last Date for Registration:** 15/11/2025

Online Payment Details

- **Internet banking**

Beneficiary Name	PDPM IIITDM Jabalpur
Bank Name	Indian Bank
A/C No.	50018692852
IFSC Code	IDIB000M694

- **UPI ID:** iiitdmj@indianbk

- **QR Code:**



Coordinators

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