

Organizing Chair

Dr. Fr. Joseph C C, Vice Chancellor, Christ University

Honorary Chairs

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Fr. Shijin P J, Assistant Director, SoET, Christ University

Dr. Raghunandan Kumar, Dean, SoET, Christ University

Dr. Mary Anita E A, Associate Dean, SoET, Christ University

Conveners

Dr. Shilpashree S P

Associate Professor and Head, Dept. of Sciences and Humanities,
Christ University

Dr. Balamurugan M

Associate Professor and Head, Dept. of CSE, Christ University

Course Coordinators from Christ University

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Principal Investigator, E&ICT Academy

Prof. Gaurav Trivedi

Professor, Dept. of Electronics and Electrical Engineering, IIT
Guwahati

PI of E&ICT, IIT Guwahati

Course Coordinator from IIT Guwahati

Dr. Ribhu Chopra

Assistant Professor

Dept. of Electronics and Electrical Engineering, IIT Guwahati



About E&ICT Academy

Electronics and ICT Academy is an initiative of the Ministry of Electronics and Information Technology (MeitY), Govt. of India for conducting various Faculty / Research Scholar Development Programme. Academy has planned short term training programmes on fundamental and advanced topics in IT, Electronics & Communication, Product Design, Manufacturing with hands-on training and project work using the latest software tools and systems. In addition, the Academy will conduct specialized / customized training programmes and research promotion workshops for corporate sector & educational institutions.

Who Can Attend?

The Programme is open to Faculty Members and PhD Research Scholars from universities and colleges. Faculty members are requested to submit an NOC from their respective institute before attending the session.

For details of the Programme and course contents please log in to Electronics and ICT Academy website: <https://eict.iitg.ac.in>

Scan to Register



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One Week Online Faculty Development Programme on

The Physics behind Qubits: A Journey in Quantum Computing

02nd to 06th February, 2026



Organized by

E&ICT Academy IIT Guwahati

in association with

CHRIST (Deemed to be University), Bangalore

& Support from

Experts Organized by E&ICT Academy IIT Guwahati

Mode of Delivery: Online through Webex Platform





About CHRIST University:

CHRIST (Deemed to be University), founded in 1969 as Christ College by St. Kuriakose Elias Chavara and managed by the Carmelites of Mary Immaculate (CMI), is a premier institution known for its modern curriculum and holistic approach to education. The institution was granted autonomy in 2004 and attained Deemed-to-be University status in 2008. Accredited with an 'A+' grade by NAAC, CHRIST is ranked 63rd in NIRF 2025. With a vibrant academic community of over 30,000 students, the university operates across multiple campuses in Bangalore, Pune, and Delhi NCR, offering a wide range of programs in Humanities, Sciences, Management, Engineering, and allied disciplines. The university strongly promotes multiculturalism and excellence in academics, arts, sports, and literature. The Department of Sciences and Humanities focuses on nurturing scientific temper and strengthening foundational knowledge in Physics, Chemistry, Mathematics, and English. Equipped with advanced laboratory facilities and a strong research ecosystem, the department actively supports PhD scholars through expert supervision, seminars, invited lectures, and holistic academic mentoring. The Department of Computer Science and Engineering offers B.Tech, M.Tech, and PhD programs in CSE, IoT, and Cyber Security. With faculty expertise in AI, ML, Cryptography, Data Mining, Big Data, Cloud Computing, Quantum Computing, and Digital Image Processing, the department provides strong academic and research opportunities. Regular workshops on emerging technologies ensure students are industry-ready and research-oriented.

Course Objectives

After the completion of the course, participants will be able to:

- ❑ Understand the foundational principles of quantum mechanics.
- ❑ Analyse the physical realization of qubits.
- ❑ Connect abstract quantum states and operators to quantum circuits, gates, and algorithms.
- ❑ Identify current challenges and future research directions in quantum computing from both physical and computational perspectives.

Course Outcomes

On successful completion of the course, participants will be able to:

- ❑ CO1: Explain and apply the postulates of quantum mechanics to describe qubit states, measurement outcomes, and quantum evolution.
- ❑ CO2: mathematical and visual representation of quantum information using single-qubit and multi-qubit states.
- ❑ CO3: Design and simulate simple quantum circuits using quantum principles.
- ❑ CO4: Describe the modern quantum computing ecosystem, including hardware platforms, software stacks.

Pre-Requisites

- ❑ Awareness of fundamental quantum concepts such as superposition, uncertainty, and wave-particle duality.
- ❑ Fundamental understanding of linear algebra, probability, statistics, and basic calculus.
- ❑ Prior exposure to computational frameworks used for simulating quantum circuits and parameterized models is desirable.
- ❑ Basic familiarity with Python programming and Jupyter Notebook or a similar development environment.

Please Note:

- ❖ Registration fees includes participation certificate and grade certificate.
- ❖ Participants have to submit UTR No. as the proof of payment while registering for the Faculty Development Programme.
- ❖ Registration Fees is refundable if the registration cancellation request is submitted before the last date of registration.

For Online Transfer

Bank Name: State Bank of India

Account Name: IIT Guwahati R and D
E and ICT Academy

Account No.: 36071160089

IFSC Code: SBIN0014262



Registration Link

<https://forms.gle/rreaXUQSoT4HHfsk9>

Registration Fees:

Rs. 500/- (Inclusive of GST)

Mode of Payment: Online Only (NEFT/RTGS/IMPS)

Course Date:

02 February to 06 February, 2026

Last Date of Registration:

25/01/2026 (Online Registration Link will be open from:
10/01/2025)

Per Day Timing:

09:00 am to 04:00 pm

Contact Hours for the Course:

40Hrs (Theory, Activities, Case Studies & Evaluation)