

## About the Course

The course focuses on equipping participants with foundational knowledge of Quantum computing, practical skills, and entrepreneurial insights to leverage quantum innovations. Participants will learn how quantum algorithms can solve real-world problems and discover pathways to build innovative startups in this rapidly growing field. Ideal for students, researchers, and entrepreneurs eager to leverage quantum advantage for next-generation solutions.

### Key topics:

- Basics of qubits, superposition and entanglement
- Quantum gates and Circuits
- Quantum algorithms
- Quantum programming tools
- Emerging Applications
- Startup Opportunities

### Communication Desk

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### Patron

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**Prof. Manoj Kumar**  
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### Prof. Jitendra Bhaskar

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### Organizing Committee

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Dr. B. B. Sagar  
Dr. Abhishek Kumar Gupta  
Dr. Savita Singh  
Dr. Pankaj Kumar Mishra  
Dr. Jitendra Kumar



**One week  
Online Short-Term Course (STC)  
On**

# Quantum Technology for Innovations and Startups [QTIS-2026]

**02-06 Feb, 2026**



**Organized by**

**Department of Physics**  
In Association with  
**Institute Innovation Council (IIC) Cell,  
Incubation Hub**

**H.B.T.U., Kanpur – 208002 (U.P.)**

## About HBTU, Kanpur

**Harcourt Butler Technical University** (Formerly Harcourt Butler Technological Institute), Kanpur has always been a paragon and a source of inspiration in the field of science and technology since the year 1921. Now, as per Act No. 11 of 2016 by the government of Uttar Pradesh it is upgraded to University, i.e, Harcourt Butler Technical University, Kanpur (HBTU, Kanpur). The University has been established with a objective for making it a leading Residential University w.e.f 01.09.2016 to become a "Centre of Excellence" with focus on Research and Development and Incubation in the field of Engineering, Technology, Basic & Applied Sciences, Humanities, Social Science & Management and other professional courses. HBTU, Kanpur aims to promote studies, research & innovation in engineering areas of higher education, to enhance skill development through continuing education programme and to achieve excellence in higher technical education.

## About Department of Physics

**The Department of Physics, HBTU Kanpur**, has a very rich history of research and innovation, it is one of the oldest departments of the University, which is running since 1958. The department is actively engage in conducting research in the areas of Condensed Matter Physics with specialization in Nano Materials, Nano-Ionics, Energy Storage Materials and Devices, Optoelectronic Devices, 2D Materials, and Thin Film Technology. It offers foundational physics education along with specialized courses for B.Tech. and M.Sc. Physics (Materials Science and Nanotechnology) programs. Over 35 years, it has graduated more than 50 Ph.D. students, published over 500 research papers in journals of national/international repute.

## Incubation Hub & IIC

**The Incubation Hub** is established to inculcate entrepreneurship roots among students. **Institute Innovation Council (IIC)** is a running under Incubation Hub which was established under the Ministry of Higher Education's guidelines. It's role is to organizes workshops, hackathons, and mentoring sessions to nurture ideas into viable prototypes and ventures, in collaboration with the university's Technology Business Incubation Facility - HBTU TBI Foundation (Section-8 Company).The HBTU TBI Foundation is recognised as incubation centre by StartinUP, UP Government and MSME Government of India. The Startups are incubated and nurtured under HBTU TBIF. The University allows student for one semester for dedicatedly working for

startup's as founder / cofounder and consider as extended internship.

**RESOURCE PERSONS are from ISRO, IITs, IIITs, Central & Technical Universities, as well as from National and International institutions, industry, and research organizations, will deliver these lectures.**

**Note: There will be no participation fees.**

## WHO CAN ATTEND?

Academicians, Faculty Members, Engineers, Industry Professionals, Research Scholars, Postgraduate and Undergraduate Students from Physics, Chemistry, Material Science, Nanoscience, Electronics, Electrical, Mechanical Engineering are invited to participate in this one-week online short-term course.

**E-Certificate will be issued to all those participants who attend regularly all sessions.**

## Learning Outcomes:

- Master fundamental quantum computing concepts, including qubits, gates, and algorithms.
- Apply quantum programming tools and platforms to prototype innovative solutions for emerging technologies like AI, materials science, and cryptography.
- Analyze real-world industry applications and identify quantum-enabled opportunities for startup development.
- Develop actionable business strategies, including ideation, funding, IP protection, and go-to-market plans for quantum tech ventures.

## REGISTRATION FORM

### Quantum Technology for Innovations and Startup (QTIS-2026)

**02-06 Feb, 2026**

Full Name	
Designation	
Organization	
Department	
WhatsApp No	
E-mail	

## REGISTRATION PROCESS

The registration of participants will be done only through the following link:

Google Link: <https://forms.gle/oN2PUodURds435Qc6>



## IMPORTANT DATES

Course Duration: **02-06 Feb, 2026**

Registration Starts: **21 January 2026**

Registration Form Submission Deadline: **30 January 2026**

Confirmation Email to Participants: **31 January 2026**