



Report on

Technical Sessions on Quantum Technologies and Standardization

1. Event Overview

The BIS Club – Emerging Technologies at Gujarat Technological University – School of Engineering and Technology (GTU-SET) successfully organized Technical Sessions on Quantum Technologies and Standardization under the aegis of the Bureau of Indian Standards (BIS).

The event was held on 24th July 2025 from 10:30 AM onwards at Aryabhatt Hall, GTU-SET. It was attended by undergraduate students from Computer Engineering and Electronics & Communication Engineering along with faculty members. The program aimed to create awareness about quantum technologies, their applications, and the importance of standardization in emerging technology domains.

2. Coordinator & Organizing Body

- Coordinator: Prof. Dipak Dabhi, Assistant Professor, GTU-SET

 Prof. G. D. Makwana, Associate Professor, GTU-SET
- Convenor: Prof. J. A. Amin, Professor, GTU-SET
- **Organized By:** BIS Club Emerging Technologies, GTU-SET under the Aegis of the Bureau of Indian Standards (BIS) With *GTU-School of Engineering and Technology*.

3. Session Expert

Shri Sailendra Kumar Verma: Scientist—C and Deputy Director, Electronics & IT Department, Bureau of Indian Standards (BIS) Ministry of Consumer Affairs, Food & Public Distribution, Government of India. Shri Verma is responsible for advancing India's standardization initiatives in frontier technologies. He serves as Member Secretary of LITD 38 — Quantum Technologies and Applications and represents India in the IEC/ISO Joint Technical Committee 3 (JTC 3) — Quantum Technologies. His expertise spans quantum computing, communication, and metrology, alongside leadership roles in BIS committees on E-Learning, Biometrics, and Magnetic Components. He also contributes as an Indian expert in ISO/IEC committees on Biometrics and Learning Technologies, playing a key role in aligning India's interests with global standards.







Gujarat Technological University

School of Engineering and Technology

Under the Aegis of Bureau of Indian Standards

Organizes

Technical Sessions on Quantum Technologies and Standardization



No.	Sessions	Audience
1.	Computer Engineering Domain	UG CE & PG
2.	Electronics & Communication Domain	UG EC & PG
3.	Research Scholar & Faculty	

Mr. Sailendra Kumar Verma, Scientist-C and Deputy Director, Electronics and IT Department, Bureau of Indian Standards (BIS)

Date: 24th July 2025

Time: 10:30 AM Onwards
Coordinators: Prof. G. D. Makwana, Prof. Dipak Dabhi

Convenor: Prof. J. A. Amin

Open for UG and PG Students













4. Key Highlights of the Session

Introduction to Quantum Technologies & Standardization Efforts

- Fundamentals of quantum computing, quantum communication, and quantum metrology.
- BIS's role in creating national and international standards.
- India's participation in IEC/ISO technical committees for emerging technologies.

Emerging Technologies & Need for Standards

- Ensuring interoperability, security, and quality in quantum-based systems.
- Standardization trends in AI, Blockchain, IoT, and Cybersecurity alongside quantum technologies.
- Adapting global standards to meet India's needs.

Challenges in Quantum Standardization

- Technical complexity and rapid technological evolution.
- Cybersecurity implications of quantum computing.
- Global harmonization of protocols and practices.
- Limited academic infrastructure for quantum experimentation.

Future of Quantum Standardization & Opportunities

- Collaboration between BIS, academia, and industry for research and policy alignment.
- Student involvement in BIS technical committees.
- Career pathways in technology governance, compliance, and standardization.

5. Attendance & Participation

The event was attended by a total of 87 participants, comprising undergraduate students from Computer Engineering and Electronics & Communication Engineering, along with faculty members. The interactive Q&A session encouraged discussions on how students can become members of BIS committees, integrate their research projects with BIS standardization work, and explore opportunities for international collaboration in emerging technology standards.

The session concluded with the understanding that active engagement in standardization activities will not only enhance academic and research contributions but also strengthen India's role in shaping global technological advancements.

GUJARAT TECHNOLOGICAL UNIVERSITY SCHOOL OF ENGINEERING AND TECHNOLOGY

Technical Sessions on Quantum Technologies and Standardization

Date: 24th July 2025, Time: 10:30 AM to 11:30 PM, Venue: Aryabhatt Hall

ATTENDANCE SHEET

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80	Shite Rani Sarkar	BE-CE	1	Shite
81	Kashish K. Prajakati	BE-CF	1	Jecshish
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83	Projapati Yalsi B.	BE-CE	y st	yatri-
84	Manshvi Patel	CE	3rd	Attris
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86	Syothi Rupapura	CF	brg	Saylolis
87	Roshan Sankhut.	CE	3rd	Rogn-
	Prof. Kimani Prajapati	CE		Himon
89	Prof. Ananika Mittal	CE		Onersia
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