



03-01-2025 NEWS

The Significance of the Quantum Year

What Is Quantum Science?

- ◆ The UN has declared 2025 the International Year of Quantum Science and Technology.
- ◆ Quantum science studies the unseen, subatomic world of particles, such as electrons, protons, and neutrons, which form the foundation of all matter.

Importance of Quantum Science

- ◆ The principles of quantum mechanics, established in 1925, mark their centennial in 2025. Key contributors to the field include Erwin Schrödinger, Max Born, Satyendra Nath Bose, and Werner Heisenberg.
- ◆ Applications of quantum science today include quantum computing, secure communication, and advancements in GPS and medical diagnostics.

Future Uses of Quantum Technology

- ◆ Predicting natural disasters like cyclones and earthquakes.
- ◆ Enhancing cybersecurity through quantum encryption.
- ◆ Revolutionizing data processing in the era of Big Data.

UN's Initiatives

- ◆ The UN encourages public awareness and celebration of quantum science, emphasizing its role in sustainable development, education, and technological innovation.