

**Quantum ontology and epistemic boundaries: Deciphering the paradoxes and Interpretations of subatomic reality**

**Mr.Adnan KV,**  
India

**Abstract**

Modern scientists describe the universe in terms of two basic partial theories: firstly, the general theory of relativity proposed by Albert Einstein, and secondly, the theory of quantum mechanics. This theory introduces an immense reality and simultaneously creates complex questions for the world of physics. Quantum mechanics is an incompletable knowledge however scientists are finding the basic theories from this theory. They propose complex mathematical expressions from quantum mechanics to prove the basic law of atoms. Quantum mechanics is the entire knowledge of subatomic particles such as electrons, protons, and neutrons. Quantum mechanics reveals that what we see is just a part of a deeper reality. Then we can grasp from this theory that the material world is not the completed reality; there are other things beyond human physical senses. The concept of quantum mechanics describes particles that can exist in multiple states. The concept of quantum mechanics is directly proportional to contemporary world technologies. The super specialty of this theory is that scientists cannot be explained universe without quantum mechanics. The uncertainty principle of Heisenberg in quantum mechanics suggests that there are limits to what we can know about a particle state of an atom. Humans cannot yet find out what it looks like and how we can imagine the existence of subatomic particles in an atom. That was an unseen dynamite for humans' perspective observation of the material world.

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