



भारतीय प्रौद्योगिकी संस्थान भुवनेश्वर
Indian Institute of Technology Bhubaneswar

Press Release

**IIT Bhubaneswar explores the cosmic history of the Universe
through a talk on ‘The Big Bang: A Discovery Written in the Sky’**

Bhubaneswar, 3rd October 2026: Indian Institute of Technology (IIT) Bhubaneswar organised an Institute Seminar on “The Big Bang: A Discovery Written in the Sky” on 29th September 2026, featuring eminent radio astronomer Professor Ravi Subrahmanyan, Former Director, Raman Research Institute, Bengaluru, as the invited speaker.

In his welcoming remarks, the Director of IIT Bhubaneswar Prof. Shreepad Karmalkar emphasized that genuine education goes beyond grades and exams. He highlighted how the institute promotes well-rounded development by integrating expert-led extramural lectures, life skills like cycling, sports and culture into the student experience. Stressing that these outside-the-classroom activities are crucial for career shaping, he recalled how a guest lecture on nation-building via entrepreneurship motivated him to pursue a two-year entrepreneurial venture after his PhD. He concluded by noting that the day's session on the Big Bang was designed to help students and researchers explore foundational questions about the universe and its exploration technologies.

Drawing on nearly 45 years of research in radio astronomy and cosmology, Professor Subrahmanyan explained how increasingly precise astronomical observations have transformed our understanding of the Universe. He took the audience from the structure of the Milky Way and the cosmic web of galaxies to the evidence revealing how the Universe has evolved over billions of years.

A key focus of the lecture was the Cosmic Microwave Background (CMB)—the faint radiation that provides a window into the early, hot and dense Universe. Professor Subrahmanyan explained how observations of the CMB, galaxies and intergalactic gas together have helped scientists reconstruct the evolution of cosmic structures.

He also highlighted the critical role of engineering and technological innovation in astronomy, drawing from his own experience in designing instruments capable of detecting extremely faint cosmic signals. Looking ahead, he identified dark energy, the formation of the first stars and galaxies, and the evolution of cosmic structures among the major questions driving contemporary research.

The seminar concluded with an interactive Q&A session, offering students and researchers an opportunity to engage directly with the distinguished scientist. Dr. Shantanu Patra, Professor-in-Charge-Extra Academic Affairs coordinated the programme.
