



हंसराज कॉलेज
— दिल्ली विश्वविद्यालय —

HANSRAJ COLLEGE
University Of Delhi
NAAC Grade A+ with CGPA 3.62

2019-2020

Name of the Department/Society: Department of Physics and Electronics/LUMEN

Name of the Event 1: Guest Lecture of the Society

Date of the Event: 23rd January 2020

Lumen, the Society of Department of Physics and Electronics conducted a guest lecture on "ELUSIVE NEUTRINOS" on 23rd January'20 presented by Dr. Md. Naimuddin from the Department of Physics and Astrophysics, University of Delhi. The title of the talk was "The Elusive Neutinos: How elusive it can be?"

Key points of the Lecture are:

- Neutrinos are born during the process of nuclear fusion in the Sun. This fusion leads to the formation of heavier Helium and releases neutrinos which eventually reach Earth. The first experimental evidence was in 1990.
- They are invisible particles and change form as they travel through space.
- Several trillions of neutrinos pass through your body doing no harm and leaving no trace.
- They are capable of traversing the Earth in the blink of an eye with almost a speed of light and nothing can stop them.
- They rarely interact with the nucleus, mass are nearly zero, can travel near light speed and hence called as GHOST Particles.
- Three different types: Electron neutrinos, Muon neutrinos, or Tau neutrinos.
- The oscillations of the neutrinos make them elusive.
- Importance of detection of Neutrinos: Can help us identify other forces in the Universe.
- Challenges in observing "Neutrino event" was explained.

The young audience was really enlightened by the whole session.

