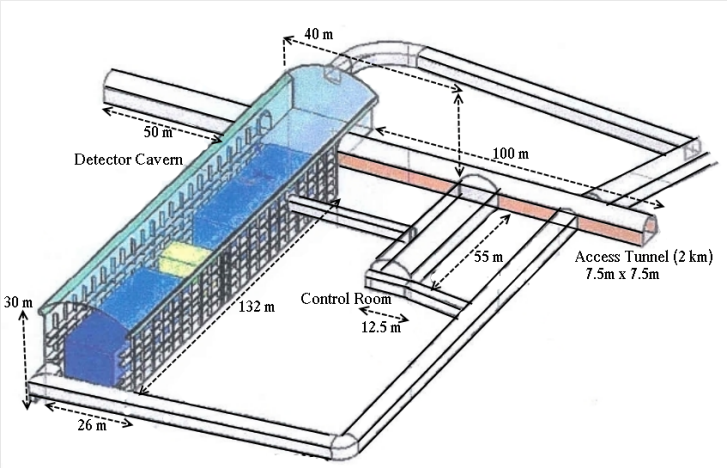
The Site Location

INO will build two caverns inside a mountain. One to house the detector (26m(width) x 30m(height) x 132m (length)) and the other to house the computers and other devices controlling and monitoring the detector.
Considering the geological and seismic factors, scientists have recommended that the stable and dense rocks found in the Western Ghats of Tamil Nadu are suitable for making such caves.

The proposed observatory will be located in West Bodi Hills in Theni district, which is about 110 km from Madurai in Tamil Nadu. Two caverns will be made inside this hill and a tunnel of 2 km will connect these caverns to the portal outside the hill.
Outside the hill, surface facilities like housing for scientists, engineers and other workers, hostel for students, labs, offices and workshops will be constructed in the available land.



The INO Collaboration

The INO project will benefit the entire country by enhancing its scientific manpower.

INO requires and employs state-of-the-art technologies in its design and development. This would produce a generation that would be building up a technologically stronger nation. The detectors used in INO also find use in fields such as Medical Imaging. A project of this kind would merge various disciplines and in turn benefitting the human kind.

INO will require a substantial investment in human resources. It needs a large number of physicists and engineers who will ultimately be the backbone of INO and contribute to its success.

A number of universities and research institutes in India are already part of the INO Collaboration.

The collaboration at the Tata Institute of Fundamental Research is currently leading the research in the fabrication and study of RPCs and in the development of the related electronics. The teams at the Bhabha Atomic Research Centre in Mumbai and the Variable Energy Cyclotron Centre in Kolkata are focussed on the development of the magnet for the experiment.

Graduate Training Program

INO has recently started a graduate training school, leading to Ph.D, to train students in the various disciplines of neutrino research, The students attend course-work for a year and later go on for research work at various collaborating institutes.

Visit our site for more details.

INDIA-BASED NEUTRINO OBSERVATORY

By the time you complete reading this sentence, over a million neutrinos might have passed through your body without leaving any traces of their path !

In the same time more than a 100 million neutrinos would have passed through the earth and have come out on the other side.

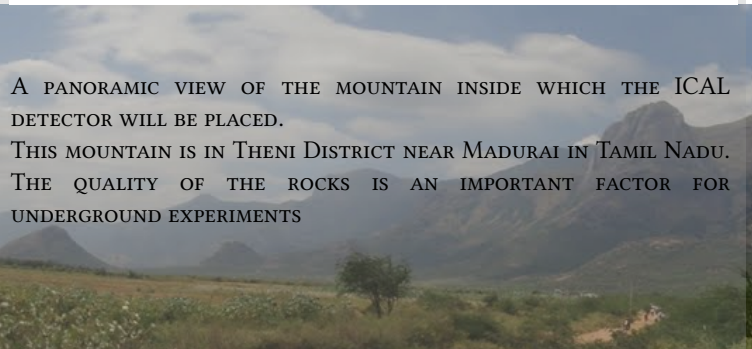
What are these particles called Neutrinos ?

Where are these particles produced ?

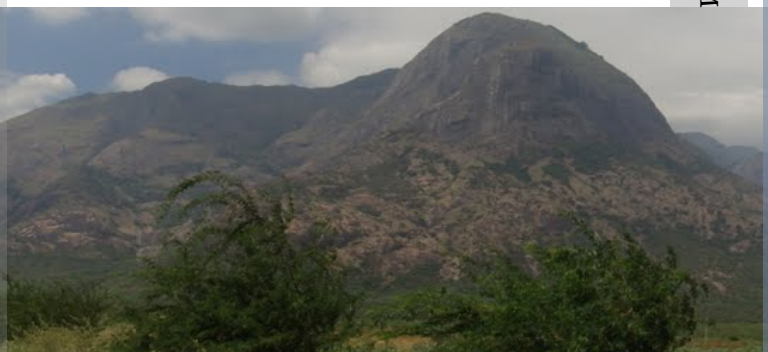
What is so interesting about them ?

What makes them pass through my body or the earth so easily ?

What is the India-based Neutrino Observatory all about ?



A panoramic view of the mountain inside which the ICAL detector will be placed.
This mountain is in Theni District near Madurai in Tamil Nadu. The quality of the rocks is an important factor for underground experiments



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