

Mysore to house neutrino centre

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From Kalyan Ray, DH News Service, Pune:

Mysore will be the research hub for a unique Indian initiative to understand the "spooky characteristics" of an elusive subatomic particle that will be captured in a deep underground tunnel in the Nilgiri Hills...

Mysore will be the "nerve centre of activities" for a unique Indian initiative to understand the "spooky characteristics" of an elusive subatomic particle that will be captured in a deep underground tunnel in the Nilgiri Hills.

While the detectors for the Rs 900-crore Indian Neutrino Observatory (INO) will be housed in a two km long and 1, 300-mt deep tunnel at Singara in Tamil Nadu, Mysore will be the research hub.

The INO team – supported by the Department of Atomic Energy and Department of Science and Technology – signed a pact with the Mysore University last October for acquiring land inside the university premises to set up the research establishment. However, the university expressed its inability to provide land for the INO.

"We preferred the university because of student availability. But, if the land is available nearby, we can manage. The centre should be big enough to house 50 scientists and 50 students," INO spokesperson Dr N K Mondal told Deccan Herald from the US where he is attending a conference. Dr Mondal said that construction work on the tunnel might commence within six months.

On Monday, Minister for Higher Education Arvind Limbavali said that the government had instructed the Mysore Deputy Commissioner to identify and sanction the land, as the State was not willing to let the project go out of its hands.

"The Mysore centre will be the project headquarters. It will remotely guide the experiments conducted at the underground laboratory. The site is a forest area where people cannot stay for long," said Dr Amit Roy, one of the INO board members.

The access tunnel portal will be close to one of the Tamil Nadu Electricity Board's (TNEB) hydel-power plants, which will share its infrastructure with the INO.

Research on neutrinos is crucial to find out answers on many mysteries related to the formation of universe, galaxies and stars.

However, since neutrinos barely interact with atoms, it is almost impossible to catch them in action, let alone study. Millions of neutrinos stream through human bodies every second without their presence being felt.

That is why underground laboratories are essential for neutrino research, as the rock shielding cuts down radiation.