



## The Everest movements: EvK2CNR installed the seismic station that studies the highest mountain in the world

Press release

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**Everest – Which slight movements or terrible rocking produces the earth's crust where stays the highest mountain of Planet Earth? Everest grows some mm every year and the rocks where is placed shift 4 cm yearly: these data prove the Indian tectonic plate movements toward Asian Continent. This project has been long-pursued by EvK2Cnr and now it has finally carried out: the Everest Seismic Station – Pyramid, one of the highest in the world, has been installed and is operating.**

The station's situ is near the Pyramid Laboratory/Observatory, at the base of Mount Everest and it's equipped with a digital broadband seismometer able to monitoring the earth's crust movements from the summit of Himalayan range.

The Pyramid Laboratory, since 1990, year of its construction, has moved one meter to the north-east, and the slippage goes on four cm each year. Franco Pettenati and Claudio Cravos – researcher and technician of OGS (Istituto Nazionale di Oceanografia e di Geofisica Sperimentale di Trieste) – together with Gian Pietro Verza EvK2CNR data acquisition stations manager, coordinated the team that in five days, installed the station; a work carried out also thanks to the continuous support of the OGS researchers in Trieste. The seismometer, recording the seismic waves, measures motions of the Himalayan ground and detects the time shift and the speed.

“Our seismic station, located at 5,050 m a.s.l., is one of the highest in the world. Thanks to our scientific partner NAST (Nepal Academy of Science & Technology), the station will be insert in the NSC (National Seismological Centre in Kathmandu) stations network, and it will supply very peculiar and important data, since now not available in the Nepalese network” explains Franco Pettenati, scientific project coordinator.

“Himalayan range is the result of the biggest tectonic plates collision and that originates the highest peaks in the world. The Everest Seismic station - Pyramid will help to study the Sagarmatha region, a interesting region from a seismic point of view, characterized by a high sliding speed and where occurred one of the most terrible earthquake of last century. It is also an important observatory on all the Asian seismic activities” Pettenati concludes.

In 1934, not too far from the point where the station is located (and at only 15 km from Everest) occurred an Earthquake reached magnitude 8.1 on the moment magnitude scale with more than 10.000 deaths. So this project earns more importance because - even if it is a strategic area from scientific an safety points of view – there are no other seismometers in a range of more than 100 km.

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