

SUPSI

RASPLAN

New radio frequency sensors for predicting rapid landslide movements and providing early warnings

The problem

Landslides are a natural phenomenon becoming increasingly frequent. The project aims to develop a methodology for the evaluation of shallow landslides triggering thresholds based on an innovative system of radiofrequency sensors.

The project

The project consists in improving the forecast and alertness of landslides by continuous measuring of soil humidity. The measures take place using a system composed of innovative antennas, sensors and a signal processor.

Later, analysis by specific algorithm are carried out and improved by machine learning.

The result

The result of the project is the development of an instrument designed for measuring the hydrogeological conditions of the soil through specific sensors. Analysis of data by specific algorithm improved by machine learning in order to predict and alert.

Contact information

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Funding agency

SUPSI (Institutes ISEA and IST)
Fernfachhochschule Schweiz FFHS

Partners

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Research domain

- 1 Constructed environment, natural resources and safety
- 3 Innovative products and processes

