

New sensors to predict landslides

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Researchers at the University of Southampton expect to have sensor probes which can predict the onset of landslides by the end of this year.

Dr Kirk Martinez, from the University's School of Electronics and Computer Science, and Professor Jane Hart, from the School of Geography, have been funded by the US-based National Oceanic and Atmospheric Administration to develop fist-sized [sensors](#) to monitor erosion rates during California's storm season.

The fist-sized sensors have been placed in Los Laureles Canyon in Mexico, an area which is constantly under water due to torrential rain and mud slides.

"Nobody has ever tried putting radio-based sensors into slopes before," says Dr Martinez. "We are very close to having a miniaturised version that measures light, conductivity and tilt."

A total of six sensors have been placed upstream from the Tijuana estuary, which is just over the Mexican border in San Diego. The probes take a reading every hour monitoring factors such as temperature and movement.

"Our challenge now is to get them measuring more and to have them really wake up when a storm is predicted," says Dr Martinez, who first developed sensor probes to monitor glacier movements in 2003.

"We are already getting very good signs that we are getting a sense of the

changes in [sediment](#) and soil through the sensors; the next move is trying to predict when things begin to change so that people living nearby can have early warnings of storms and [landslides](#)."

According to the researchers, these sensors will be suitable to predict sudden landslides, particularly common in India and Asia and which cause mass devastation, claiming hundreds of lives and leaving millions homeless. They could also be used to predict flooding in the UK.

More information: For further information about the San Diego Coastal Storms project, please visit: sdcoastalstorms.org/

Provided by University of Southampton

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