



# Document details

1 of 1

Export Download More... >

Proceedings of SPIE - The International Society for Optical Engineering

Volume 11524, 2020, Article number 115241Q

8th International Conference on Remote Sensing and Geoinformation of the Environment, RSCy 2020; Paphos; Cyprus; 16 March 2020 through 18 March 2020; Code 162750

## Land movement analysis from terrestrial laser scanner (LiDAR) (Conference Paper)

Cabrera, P.C.P.

View additional authors v

Save all to author list

University of Cuenca, Engineering Faculty, Cuenca, Ecuador

View additional affiliations v

Cited by 0 documents

Inform me when this document is cited in Scopus:

Set citation alert >

Set citation feed >

Related documents

Find more related documents in Scopus based on:

Author > Keywords >

### Abstract

In March 2018 the Reina del Cisne (Cuenca) landslide was triggered by a hillslope cut for the construction of a small access road to a house. The landslide is conditioned by the lithology of the slope (mainly sands) and its high slope (up to 40°). From March to June 2018, the period analyzed in this work, the landslide has caused partial to total structural damages in some houses, scarps in a crop field and the total blockage of the road that triggered it. Field visits since March'18 and the comparison of the point clouds obtained with terrestrial laser scanner in May and June 2018, carried out with CloudCompare, have revealed the high activity of this slip. An affected house has been analyzed in 3D and it has experienced downhill sinking and tilting with local displacements of up to 91 cm in 20 days. © 2020 SPIE.

### SciVal Topic Prominence ⓘ

Topic: Insar | Radar Interferometry | Subsidence

Prominence percentile: 99.035 ⓘ

### Author keywords

- CloudCompare
- Cuenca
- Landslide
- Reina del Cisne
- Structural damage in housing
- Terrestrial laser scanner
- Terrestrial LiDAR
- TLS

### Indexed keywords

Engineering controlled terms:

- Houses
- Landslides
- Laser applications
- Lithology
- Roads and streets
- Scanning
- Surveying instruments

Engineering uncontrolled terms

- Access roads
- Crop fields
- High activity
- High slopes
- Local displacement
- Movement analysis
- Structural damages
- Terrestrial laser scanners

Engineering main heading:

- Remote sensing

ISBN: 978-151063857-0  
CODEN: PSISD

Source Type: Conference Proceeding  
Original language: English

Document Type: Conference Paper  
Volume Editors: Themistocleous K., Papadavid G., Michaelides S., Ambrosia V., Hadjiimitsis D.G.  
Publisher: SPIE

Check Access

Got it



🔍 Cabrera, P.C.P.; University of Cuenca, Engineering Faculty, Cuenca, Ecuador;  
© Copyright 2020 Elsevier B.V., All rights reserved.

## About Scopus

What is Scopus  
Content coverage  
Scopus blog  
Scopus API  
Privacy matters

## Language

日本語に切り替える  
切换到简体中文  
切换到繁體中文  
Русский язык

## Customer Service

Help  
Contact us

**ELSEVIER**

[Terms and conditions ↗](#) [Privacy policy ↗](#)

Copyright © Elsevier B.V. ↗. All rights reserved. Scopus® is a registered trademark of Elsevier B.V.

We use cookies to help provide and enhance our service and tailor content. By continuing, you agree to the use of cookies.

RELX