H. González-Jorge, P. Arias Sanchez, I. Puente, J. Martínez. ***Surveying of road slopes using mobile LiDAR.*** *Gerontechnology 2012;11(2):85;* doi:10.4017/gt.2012.11.02.275.00 **Purpose** The slope of roads is one of the most important elements to be monitored to prevent landslides and ensure the safety of vehicles. This fact is particularly relevant in areas such as Galicia (Spain), where, due to its orography, slopes always are a relevant factor in road construction projects. **Method** Typically, the slopes of the roads are visually monitored by road inspectors and only in case of important problems do they use measuring equipment (e.g. extensometer, inclinometer). The aim of this work is to introduce the routine use of mobile LiDAR systems for monitoring of slopes. **Results & Discussion** A filter based on the returns of the laser shot is used to remove vegetation of the slope and work only with ground level information. An algorithm that compares the slope surface between two different inspection periods was developed. This algorithm extracts the systematic error due to GPS and can display variations of a few centimeters.

Keywords: automation, mobile LiDAR, road inspections, slope stability
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