

Detection of overhangs from airborne laserscanning data

Abstract

The objective of this thesis is to propose a method of processing airborne laserscanning data that include areas with overhangs with the goal of creating 2,5D digital terrain models. The theoretical part consists of brief introduction of basic principles of airborne laserscanning, followed by research of existing published solutions dealing with the problem of overhangs in airborne laserscanning data. Last section of theoretical part of the thesis deals with the usage of airborne laserscanning data in Czechia and digital terrain models created from those data are introduced.

In practical part of the thesis, own method of processing of ALS data in the areas of overhangs is presented. The designed algorithm is then implemented in a form of script for ArcGIS 10 and the results are tested using real data from Czech Switzerland.

The conclusion focuses on critical evaluation of the suggested method and its implementation.

Keywords: overhangs, airborne laserscanning, digital terrain model