

# **Production of cartographically correct contour lines from airborne laserscanning data in flat terrain**

## **Abstract**

The thesis is dedicated to the creation of contour lines from the data of airborne laserscanning in flat areas. For creation of contour lines in these parts is necessary specific generalization, that smooths unwanted artifacts, but does not delete the shapes, which are characteristic for the relief. The first part of the thesis is to serve as a short insight into the areas on which it is built, this thesis: the principle of airborne laserscanning and basic information on the contour line model. On the basis of technical literature are defined the requirements for the correct representation of the contour and cartographically presented the different types of the DEM and generalization of contours. The main aim of this work is to design an algorithm that will combine several methods of generalization of contour while maintaining altitude accuracy as well as other requirements on their cartographicly the right terms, and to test this approach in several territories. In conclusion, the results of the methods of work and its implementation critically evaluated and outlined other possible developments of this issue.

## ***Keywords***

hypsography, airborne laserscanning, digital cartography, contour lines, cartographic generalization