

Accuracy assessment of the forest road network contained in the geographical databases of the Czech republic

Abstract

The aim of this bachelor thesis is to evaluate forest road network spatial data resources in the Czech Republic. The main resources are ZABAGED, DMU 25, UHUL, SHOCart and maps for orienteering sports. The theoretical section of the thesis describes the definition and importance of forest road network, the classification of roads and paths of individual databases, methods which can be measured in wooded areas and their principles. The most described is the method of GPS measurements which contains errors that can occur when measured in forested areas. The practical part of the thesis contains an analysis of tracks and paths databases that was done on the basis of their classification, existence, similarities with the initial dataset (ZABAGED), a comparison of databases with field research. First, a method of analysis is described. Measurements were performed with geodetic GPS device and it also includes the determination of its accuracy in areas with unfavorable conditions. At the end, the results of analyzes are mentioned. The work contains a topographic map of the defined forest area in scale 1: 10 000.

Keywords: forest road, footpath, geographic database of the Czech Republic, the classification of forest road network, global positioning system, map creating