

Abstract

This diploma thesis deals with object oriented approach to classification of satellite data and its application for urban vegetation extraction. Theoretical part consists of background research of the related past works, description of object oriented methods for image analysis, and introduction to eCognition software as a primary tool for object oriented image analysis. Practical part demonstrates applications of described object oriented methods for extracting urban vegetation from QuickBird satellite data. The object oriented classification has been realised on two subsets, showing classification stability and accuracy above average. The highest classification accuracy – 85 % - was achieved while using the combination of nearest neighbor classifier with knowledge based user-defined fuzzy rules.