

Abstract

This Bachelor thesis is divided into three parts. The first part deals with the description of development of unmanned aerial vehicles (UAVs) in the context of the natural sciences. Firstly there are given general existing knowledge about these technologies further, it focuses directly on their use in environmental sciences. From commercial mapping field to the scientific research of various measurement. The major use is mapping by using multi-spectral cameras or measuring by various special sensors. The second part focuses on specific projects related to the use of UAVs. This part is a professional research indicating the scientific references, specific projects and current information obtained by using the Internet. There is also an assessment of the usability of the data obtained for data processing in GIS. The third final part contains some selected case studies to demonstrate the use of these resources to collect environmental data. Data for the case studies was provided free of charge by company engaged in the deployment of UAVs in cooperation with scientific institutions and universities.