

ABSTRACT

This work deals with the possibilities of using UAVs in mapping the terrain of the sandstone rock city of Adršpach for the purpose of climbing guides. The thesis includes a bibliography and evaluation of climbing guides describing Adršpach. As part of the work, the area was photogrammetrically imaged using a UAV and from this measurement a digital surface model of the area was created. This model was then compared with the adopted model created by airborne laser scanning (ALS). Both of these models were examined in terms of their usefulness for determining e.g. the relative heights of rock towers or their coordinates. The found coordinates were then compared with the coordinates of these towers in climbing databases. The last chapter of the practical part deals with the visualization of the digital elevation model (DEM) of the area in ArcGIS Pro.

Key words:

rock formations, sandstone landscapes, GIS, UAV