**Topic:** Algorithm for computation and visualization of searched area with Implementation

Using OpenStreetMap system.

The main purpose of this study was to map out algorithm for computation of area registered by camera mounted to unmanned aerial vehicle known as drone based on vehicle's geoposition and known angle of camera lens. Such an area was descrbed in the study as searched area. Adittional aim was to create an information system enabling to visualize effects of the algorithm on mobile device.

At the beginning there were described theoritical aspects connected with touched issues, which contained such topics as reference surfaces for mapping, digital elevation models and the ways to gather them with detailed description of shuttle radar topography mission and global positioning system (GPS), the way it works and its accuracy. Being acquiainted with these issues was crucial for further stages of the study.