Accuracy assessment of the Precise Point Positioning method applied for surveys and tracking moving objects in GIS environment

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The Precise Point Positioning (PPP) method gives the users the opportunity to determine point locations using a single GNSS receiver. The accuracy of the determined by PPP point locations is better in comparison to the standard point positioning, due to the precise satellite orbit and clock corrections that are developed and maintained by the International GNSS Service (IGS).

The aim of our current research is the accuracy assessment of the PPP method applied for surveys and tracking moving objects in GIS environment. The PPP data is collected by using preliminary developed by us software application that allows different sets of attribute data for the measurements and their accuracy to be used. The results from the PPP measurements are directly compared within the geospatial database to different other sets of terrestrial data - measurements obtained by total stations, real time kinematic and static GNSS.