

A web application aimed at assisting land surveyors and geomaticians with managing, processing, and improving accuracy using AI

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SUMMARY

Web application aimed at assisting land surveyors and Geomaticians with managing, processing, and improving accuracy using AI.

Land surveying and geomatics technicians are responsible for collecting raw field data and ensuring its accuracy for processing and analysis. When processing survey data, they perform calculations for data validation and error checking, which can be a time-consuming task.

The proposed solution is a web application concept called "GeoSurvey," which functions as a surveyor's calculator. This application aims to assist land surveyors and geomaticians with field data management, processing, analysis, and ensuring data accuracy. It will be tasked with performing advanced survey calculations, error checking, adjustments, and data validation.

The application will be equipped with AI automation for coordinate transformations and projections. It will also have built-in basic geodetic referencing data, including specific surveying calculations formulae and ellipsoids with their axes.

Users can input their field data, which is immediately saved in the application's cloud storage. An AI program will then perform a specific task according to the user's preference. Alternatively, if surveyors have already done their calculations, they can scan their data into the application. The application will then validate their data for strict accuracy, providing feedback and possible suggested solutions.

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