

ABSTRACT

Integration of GPS and GIS

Two of most exciting and effective technical developments to emerge in the last tow decade are: the Global Positioning System (GPS) and the Geographic Information System (GIS).

GPS is a powerful tool providing a unique position of a specific feature. It allows you to know where you are by consulting a radio receiver. The accuracies range as good as a few millimeters to somewhere around 100 meters, depending on equipment and procedures applied to the process of data collection.

While GIS is an extremely broad and complex field, concerned with the use of computers to input, store, retrieve, analyze, and display geographic information. Basically GIS programs make a computer think it's a map, a map with wonderful powers to process spatial information, and to tell its users about any part of the world, at almost any level of detail.

Combining the GPS data with GIS allow for greater capabilities than what GPS and GIS can provide individually. With the combination of two technologies one is able to display the "Field/Actual Site" on a PC and make information decisions. There is no need to make specific site visits or review several documents/drawings. Also, anther benefit of the integration is the fact that the data can be shared by unlimited users in various departments for their own specific needs and analysis.

This work has two main objectives; the first objective is to study the integration of GPS and GIS technologies. The second objective is to design and establish a good and up-to-date base for a modern cadastre system for Beyşehir municipality, Turkey, by using the GPS and GIS techniques and other modern surveying instruments.