

Implementation of GIS Database and Guide interface for A Remote Vision Guidance System

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Abstract

The continuous development of satellite navigation, video streaming over mobile communications, and Geographical Information System (GIS) technology has created an opportunity to get them integrated in one system enabling visually impaired pedestrians to travel around safely and enhance their quality of life. This system enables sighted individuals to remotely guide visually impaired people using video images and Global Positional System (GPS) location data tracked on GIS map. This paper presents the design and implementation of GIS database and sighted guide interface, which has been made to facilitate the guidance process by incorporate useful information about potential obstacles, that face the visually impaired user as well as necessary information for daily life needs.

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