

Proposal on GIS Implementation in Resolving Urban Road Traffic and Parking Problems in Tirana: A Case Analysis

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Abstract

The main objective of this work is to denote the determinant role the utilization of GIS technology has in monitoring the situation of parking lots in urban area during the day. The research was performed on 25 parking lots located in the center of the Municipality of Tirana called “the block”, for the years 2010 and 2011. It is important to denote the fact that many road accidents are not always connected to the vehicle or population density in the streets but to a bad traffic management and deep neglect by the local authorities. In Albania few institutions have operational GIS databases. We face the fact where mostly geographic data is owned from private agencies for their personal needs, meanwhile state institutions try to solve the above mentioned problems using inconsistent data which is mostly not updated, or inappropriate frameworks to do the job. Municipality of Tirana is the only which presents online spatial databases but not real solutions which is not enough to face the enormous traffic problems day after day due to a massive population move in the capital. The real issue of road infrastructure in Tirana is a complete lack of a parking plan. No adequate parking in certain areas, illegal parking and insufficient parking exploitation. Using GIS technology to overpass this problem is not a luxury anymore but a real necessity. A well designed Parking Management System (PMS) is needed in the city. In this article will be treated a real case study and also basic points will be suggested which can serve as a future column to build a functional and effective PMS. An effective PMS is considered the one which offers to the driver options which affect the relieve of traffic congestions like shortest route path or parking availability bypassing in this way parameters like price, parking preference, etc which incline more on the driver position than the real issue solution.