

A Web-based GIS for Crash Data Analysis

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This paper presents key features of a web-based Geographic Information System that being developed for Missouri DOT (MoDOT). The main purpose of the system is to efficiently disseminate crash data along with other relevant information to local transportation engineers as well as researchers. Currently, the crash data is stored as a part of a large data set called Transportation Management System (TMS) in a Oracle server at the MoDOT headquarter in Jefferson City, MO. Extracting and downloading information necessary for local staffs has been a difficult and time-consuming task. For the same purpose, a similar system has been developed using IIS and ArcGIS Servers. The new system presented in paper is designed and implemented using Apache server, PHP and MySQL which are freely available to public. For the spatial representation of the selected information, Google Map is implemented with KML coding. Another unique feature of the system is that for the advanced quantitative analysis, customized MATLAB JAVA components are developed and imbedded in the system as well.