

Project Title: Traffic Counting Using Existing Video Detection Cameras

Principal Investigator:

Sherif Ishak, Ph.D.

Associate Professor

Undergraduate Programs Coordinator

3418A Patrick F. Taylor Hall

Civil and Environmental Engineering

Louisiana State University

Baton Rouge, LA 70803

Phone: 225-578-4846

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Project Summary:

The traffic volumes collected by DOTD over a 24 hour period once every three years at specific locations are deemed insufficient to respond to the current needs to measure AADT and the adjustment factors addressing daily, monthly, and seasonal variations. With the increasing use of video detection technology by state and local agencies, there are better opportunities to collect traffic counts on a continuous basis. The video detection cameras are capable of collecting and storing large amounts of traffic data which can be downloaded remotely or on site. This study investigates the effectiveness of video detection technology in traffic data collection at signalized intersections in Baton Rouge and attempts to integrate the traffic count data from video cameras into a database that can be accessed to extract the required information at any time. The primary goal of this research project is to evaluate the existing technologies of the video camera manufacturers. The scope of this study is limited to the Baton Rouge Metropolitan Area and the video camera technologies installed at intersections for data collection and traffic signal control. Data will be collected from a selected sample of intersections where various detection technologies are used, in addition to new candidate technologies of potential use in the near future, if any. If a new system is adopted, it will need to be evaluated for a year and compared to the data produced by conventional methods. This study will evaluate the video detection technologies currently adopted by the city of Baton Rouge and the state DOTD with the purpose of establishing design guidelines based on the detection needs, functionality, and cost. The study will also develop a mechanism for integrating traffic count data from video cameras at intersections in the Baton Rouge Metropolitan Area into a database that can be used to supplement traffic count information.