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# A Web-Enabled Parking Garage Monitoring System for Real-Time Data & Trend Analysis

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Indiana University-Purdue University Fort Wayne

# Project Report

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## CPET 491-Senior Design Phase II

### **A Web-Enabled Parking Garage Monitoring System for Real-Time Data & Trend Analysis**

**Submitted by:**

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**to fulfill B.S. Computer Engineering Technology Degree Requirement**

**December 11, 2009**



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## **Abstract**

Indiana University-Purdue University Fort Wayne (IPFW) is rapidly growing, as evidenced by an increase in enrollment of 11% in the Fall semester of 2009 [1]. A survey was performed in the Spring Semester 2009. Out of 2317 active Spring semester 2009 students surveyed, approximately 48% have shown dissatisfaction with parking availability on campus, 68% report having experienced a traffic jam in a parking garage on campus, and 53% of students would avoid parking in a garage when capacity is displayed as near-full [2].

Currently, the university has two parking garages with little notification on their capacity. The parking garage closest to the Engineering, Technology, and Computer Science building is equipped with two LED displays which are capable of displaying dynamically updated information. Currently, Police and Safety places a static message on the parking garage when the number of cars nears the garage capacity. A more accurate system would benefit both students and administrators in savings of both time and frustration.

## **Keywords**

Parking, Parking Garage, Parking Garage Monitor, Count, Cars, Vehicles, Banner Engineering, Weidmuller, ABB, Devasys, Winford

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