

Title: Vision-Based Parking Lot Monitoring System

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EXECUTIVE SUMMARY

Safety and security are one of the most needs in monitoring a parking lot. It has influenced the different aspects of life and redefined our day to day living.

Technology plays an important role like in a car park; a lot of company needs a device or software to make the monitoring easily.

This study entitled Vision-Based Parking Lot Monitoring System is a research about open source computer vision (OpenCV) and to create another way of parking system process to all companies of Davao City. The system is designed to give visual knowledge of the car park for the administrators and able to check all vehicles in the parking lot. To park in an empty designated parking space inside the company is a problem for many employees and customers. The in and out of the vehicles are not checked properly and are not monitored real-time. With this the said difficulties will be handled; accordingly, the management will know if the vehicles entering the parking lot are in its designated parking space with just a click of a button monitoring the in and out vehicles will be real time.

During the phases of developing the system the result is it can capture and monitor the vehicles inside the parking lot through the use of OpenCV Library. It can detect plate numbers of the vehicles and convert into text data using Optical Character Recognition. It can match the barcode with the ticket number using barcode matching process, lastly it can generate monthly reports and by having a Vision-Based Parking Lot Monitoring System is the best solution for the parking lot process problems of the company.

Keyword: Vision-Based, Monitoring System