Vision Based Parking Lot Monitoring: Available Parking Spaces Information via Mobile Phone

Leonard Yoon  
Department of Electrical & Computer Engineering  
University of California, San Diego  
lyoon@ucsd.edu

Kyumin Cho  
Department of Computer Science  
University of California, San Diego  
k3cho@ucsd.edu

Abstract

A project involving vision based parking space detection that detects how many A, B and S spots are available using camera feeds. We propose a system that will take the output of the vision based system and disseminate it to users via SMS, voice call or the web. This will help commuters to UCSD easily find the open lots.

1 Qualifications

Leonard: I have taken courses in image processing, intelligent systems, and DSP. I am familiar with the basic concepts of computer vision and image processing. I have also taken ECE191 to have a group project experience in Bluetooth data transmission. This experience will help us set up the goal and make up the weekly plans.

Kyumin: I have taken server-side web application course in which he experienced SQL. I have also taken some programming courses which used java, c, and c++, and developed his programming skills. I am currently taking CSE 130.

2 Milestones

- (Week 1-2) Learning voice XML
- (Week 3) Voice XML based prototype
- (Week 4) SMS based prototype
- (Week 5-9) Building an application using Java/JSP and MySQL
- (Week 10) Write up final presentation

3 Software

- Java/JSP and MySQL
- Parking Lot Space Detection System built by other graduate students
4 Questions

- How effectively could this application help finding a vacant space in parking lot?
- The popularity of this application.

5 Division of Labor

Leonard: Focus more on researching in voiceXML and building a prototype.

Kyumin: Utilize his programming skills to build an application.

6 Related Papers


