The Chinese University of Hong Kong

Intelligent Car Park System

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CSCI 4998, Final Year Project

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4th December, 2016

Intelligent car park system

Background:

CSE has several FYP car park management systems developed in previous years. They concerns about the in-out records and checking empty slot. To tell driver where is the empty slot rely on human to assign the parking slot. In this project, an intelligent car park management system is developed to replace the human assignment. In other words, the system should recognize the size of incoming car and determine the best fit location for the car based on the on site situation.

Operating System:

* Linux Ubuntu 16.04 64bit

Programming language:

* C++

Tools/library:

* OpenCV

Algorithm for extract car from entry:

1. Using MOG2 algorithm to do background subtraction.
2. Find all out dynamic object in the camera screen.
3. Calculate all contours of object.
4. Eliminate all useless object from the screen.