

Project Proposal

No-Parking Zones Detector

Description:

This project will use video/image processing, to detect the presence of vehicles in no-parking zones.

Once presence of vehicle is confirmed, it will try to find out if there is anyone present in the vehicle.

If no person is present in the vehicle, then it will try to read the number plate of the vehicle and inform the relevant authorities

Existing Solutions:

1. There are many existing algorithms and solutions which are able to efficiently detect from video frames if a vehicle is stationary at a particular place for more than a given time. Some algorithms involve using a Kalman-Filter

Proposed Solution:

This project aims to use a modified version of any of the available detection algorithms to detect stationary vehicles. Then this project takes it one notch further by employing human presence detectors to find whether a person is inside the vehicle and use image to text processors to find the number of the vehicle from it's number plate

Performance Evaluation:

The performance shall be evaluated on the following parameters:

- 1. Correctly detect different types of vehicles of various shape and color.*
- 2. Correctly detect the vehicles in varied intensity of ambient light (morning, afternoon, evening, night etc.)*
- 3. Accuracy upto which it is able to read the number plate from a variety of different angles*
- 4. The time it takes to complete all the above process.*
- 5. The iLIDS(Imagery Library for Intelligent Detection Systems) can be used as a dataset for the evaluation*

