Abstract

The number of vehicles in Indonesia increased each time. Large number of vehicles will increase the need for parking space. This leads to increased frequency of exit-entry vehicle in the parking lot so that the frequency of vehicle registration numbers will also increase. With a large number of vehicles, recording by human will lead to greater levels of human error. Therefore we need a way to replace human tasks in the vehicle registration number. The Solution is to use the Automatic Number Plate Recognition (APNR) which is a system that can automatically identify the number of vehicles using certain optical instruments (such as a camera) to obtain the input data.

This final project focused on the License Plate Localization (LPL) that recognize the location of license plate number on vehicle. Fourier Transform and Spectral Analysis were used in order implement this system. The power spectrum which produced by Fourier Transform will be processed by Spectral Analysis to get the location of a vehicle license plate number. The input data which was used in this research are images of vehicles with different types and conditions.

Based on the experiments, the level of system's accuracy in recognizing the license plate location is quite good. Produced the best accuracy in SUV type vehicle that is 100%, while the accuracy is less good is produced on the vehicle type trucks and vehicles which is taken 45 degrees from the side that is 52,5% and 32,5%.

Keywords *:APNR, vehicle, license plate, Fourier Tranform, Spectral Analysis*