

Nowadays, a common parking lot system that is applied in most of Indonesia area is still a manual system where the vehicle number as an input is typed manually into a computer to be processed and later being printed and the duration will be calculated. Some of the parking systems have used a camera to capture the vehicle number. But, the input is only a database of image. This kind of system of course will take a long service time and will not decrease a vehicle robbery. Therefore, a parking lot needs a system that is not only to recognize the vehicle number but also to recognize the owner face.

With a technology of digital image processing, in this thesis a system of vehicle owner face detection has been made using a Principal Component Analysis (PCA) feature extraction and Learning Vector Quantization (LVQ) feature classification and later will be checked with the vehicle number which has been identified by another system in a final project of Indri Tambunan titled 'IDENTIFICATION VEHICLE' C NUMBER PLATE REGULAR/NON-REGULAR BASED ON IMAGE PROCESSING USING BACKPROPAGATION NEURAL NETWORK'.

In this final project, not only 20 different faces has been used but also 20 different vehicle's number. A result that has been achieved is this sytem could recognize the face of vehicle owner with the maximum 91.875 % level accurate and 95,369% level accurate of recignizing vehicle number in a non-real time system.

Key Words : Image Processing, Principal Component Analysis, Learning Vector Quantization, face recogniton