## ABSTRACT

Improvements in science and technology these days give humanity to live easier. Whereas everything has already trying in science and technology to makes people's work to be easier to do without spend more energy and shortened their time. Many appliances has already implement science and technology, so people's work become much easier. For example is automatic opening portal system, which will granted acces for license number which already registered.

In this paper, an application system designed which could be analyzing image of vehicle's license number. In preprocessing step, we do image processing like grayscale, threshold, canny edge detector and segmentation. Then we convert pixel of license number into discrete signal by DFT and also in license number image match processing by POC method. Result of detection by POC sending signal to micro to open the portal, when the license number is recognized based on POC result.

From result of test, I got accuracy result about 76%. That percentage is obtained from standard POC result, which is 0,6819882. This process has been tried in three nature condition, which is in the morning, afternoon, and evening. In the morning test produce an accuracy result about 77%, the afternoon test produce an accuracy result about 64%. The evening test the accuracy result is about 78%. And in the night test the accuracy result is about 67%.

Keyword : vehicle license number, DFT, POC