

## ABSTRACT

Life style and the technology who have developed for nowadays, make world has been surprised by the variety of existing trends. One example in Indonesia is a trend of changing in license plates of vehicles, especially cars. Many people have changed the shape resembles of his car plate number to the owner name, lucky numbers, date of birth and so on. By the time goes on, they didn't realized that this trends have been against the rules on State Law number 22<sup>nd</sup> of 2009 to section 280 by imprisonment of two months or a fine of Rp. 500.000,- ( five hundred thousand rupiah). Therefore, it must be eradicated so the state law of Indonesia can be enforced.

As the development of technology, image processing brings the solutions for this problem. With the data in the dorm of picture that have taken use a camera, it can be done the research process of characteristics on the relevant image which is then recognizable character, and became characteristic of the image. The result became an input for the Backpropagation Neural Networks and they identified the number plate, then provided that certain conditions to classified into regular or non regular classes.

By using the related research on the identification plate number using artificial Neural Network Backpropagation's that quite accurate, and based on these methods can be developed to classified methods of license plate into their classes. To support the classification of the plate, in this final project discussed about the detection system space on license plate, as the basic for the classification of the plate. By this methods, the system can be provided an accuracy of 99,51% for only 108 seconds.

**Key words** : Image Processing, Backpropagation Neural Network, Plate Identification, State laws.