

## ABSTRACT

This final project is made for automation reading of Indonesian army vehicle license plate using Radon Transform algorithm by utilizing the character trait numbers 0-9 and dashes (-).

To analyze and detect the characters on Indonesian army vehicle license plate in a digital image by generating images from a computer and by capturing from the camera, the image quality are improved, cropped, and segmented character. The character that transformed in Radon domain become dots to be analyzed in dots amount, location and formation then, were classified by backpropagation. This test performed based on the results of objects with differences in function Radon Transform algorithm, distances, and under different light intensities. For the noise image, it added noise salt & pepper before the acquisition.

170 results of image acquisition were tested for reading of Indonesian army vehicle license plate. Accuracy testing of the system are best generated using maximum Radon Transform with an accuracy value of 90,83%, making a distance of 100 cm from the camera with an accuracy value of 90%, and making the light at 13:00 to 14:00 with an accuracy value of 90,32%. Based on all the test results, the Radon Transform algorithm provides an accuracy value of 80,53%. Average computing time Radon Transform algorithm 10,2 seconds.

**Keywords:** Indonesian army vehicle license plate, Radon transform algorithm, backpropagation.