ABSTRACT

Transportation security becomes important to have, considering the number of crimes committed from year to year. Criminal Statistic from Indonesian Central Statistics Agency said, in 2020 there have been many cases of crimes against right ownership without violence. Crimes against right ownership without violence are the most common types of crime in terms of number each year. This crime is dominated by home appliance theft and motor vehicle theft.

In this final project, an application is made to help motorcycle user to secure their motorcycle. This application uses voice command to manage all commands and features like turning the engine on and off, giving notifications from the motorcycle, and ensuring the presence of the motorcycle. In this final project, a comparison analysis of Speech To Text simulations on Smartphone and computer applications was also carried out in real time.

The result showed that, the results of the design on the Smartphone application, it can achieve 92% accuracy in recognizing voice signals in the form of command sentences while on the computer, it can achieve 45% accuracy in recognizing voice signals in the form of command and on both system, the commands given can run and work on motorcycle such as turn on and turn off the machine, turn on and turn off the key, turn on and turn off the alarm, turn on and turn off the secret key, and get location.

Keywords : KNN, MFCC, Motorcycle, Security Application