ABSTRACT

Traffic sign is one of the rules that may be emblems and pictures that serve as warnings or instructions for each person. Each traffic signs in pairs intended to comply and as a notification for common security.

Many traffic signs are installed to inform tourists about the rules and notices that are in various attractions. Many tourists still do not understand what the meaning of traffic signs related to tourism. By utilizing the mobile application and machine learning, designed a mobile application that serves to recognize traffic signs picture using the camera android based smartphone. With this application, tourists can take pictures of traffic signs are there, then automatically if a traffic sign is detected, then the application will display a text information such as the meaning of a traffic sign with two languages; indonesian and english.

In the implementation of this application using the extraction method that is speeded Up Robust Features (SURF) to identify the pattern of an image. With this SURF can perform an extraction picture taken and then the data that is extracted will be in the classification based on the method of Support Vector Machine (SVM). This application for many tourists understand the meaning of traffic signs installed in the attraction.

Keyword : *Traffic Sign, Android, Speeded Up Robust Features (SURF Method), Support Vector Machine (SVM)Method.*