ABSTRACT

Smartphones today are not only used as a communication device but also invested several sensors, such as sensors gyroskop. Gyroskop is in the form of a gyro sensor for determining the orientation of motion with the rest on the wheels or discs that rotate rapidly on the axis. In another sense can determine movements made by the user. Each user has a unique gait gyroskop its own, so it can be implemented as a biometric gait. Thus it is possible to measure the movement of individuals when walking using sensors gyroscope embedded on the smartphone

This research will utilize gyroskop sensors embedded on the smartphone to detect human activity based gait like walking, running, up and down stairs. Furthermore, by using the data gyroskop pattern recognition process will be conducted to identify user activity called Activity Recognition. In this study used methods Time domain and frequency domain for feature extraction process whereas the method of Support Vector Machine for classification.

In this final project resulted in the highest accuracy rate reached 89%, on the classification of the Linear kernel function SVM, parameter-C = 1, and multiclasses one-against-one.

Keywords : Gyroskop , *Activity Recognition, Support vector machine, Linear*