ABSTRACT

Each individual has a different gait because walking is something that is very complex for humans. Because walking is a complex matter that can distinguish the gait of each individual, a biometric science was created that aims to identify the individual's gait. The purpose of this study is to analyze a person's gait using Kinect which will later be used as a biometric.

Analysis of a person's gait is carried out using a Kinect which is placed next to a person who is walking on a treadmill at a distance of 5 meters, then Kinect will be connected to a laptop using the Kinect Software Development Kit (SDK) to perform skeleton tracking which later moves a person from the stationary phase to the stationary phase. The walk will be recorded with Kinect. The data that has been obtained will be processed and the data extraction process will be carried out using Order-1 Feature Extraction and data classification using K-Nearest Neighbors. The data that has been classified will get accuracy which can later be used for biometric processes.

The results of the tests that have been carried out using Kinect V2 with the statistic feature order-1 method and classification using K-Nearest Neighbors with the K-Fold Cross Validation feature produce an accuracy of 60%-94% with the joint used in the lower part of the human body.

Keyword**:** *gait, biometric, Kinect V2, statistic feature order-1, k-nearest neighbors.*