

Abstract

Gait analysis or gait is the method that is applied to know and learn human walking patterns. By knowing the parameters in gait analysis, kinematic movement can be obtained in the knee. In the IMU (Inertia Measurement Unit) sensor-based Gait Analysis System research in detecting kinematic abnormalities an application is needed to measure the similarity between the two signals and analyze the results of the system. Therefore, this research proposes an alternative approach to measure the similarity between two signals using the normalized cross correlation method to determine the level of correlation of the experimental signal (data testing) and compare it with the reference signal or the normal signal reference (training data). This application has a justification for the normal foot category to take a range between 0.7 - 1, less than this value the correlation between the two signals is not similar and can be said to be far from normal. So that this application can be used to detect the presence of kinematic abnormalities in the knee or not.