

Analisis Perbandingan Metode *K-Nearest Neighbor* dan *Support Vector Machine* dalam Deteksi Jatuh pada Manusia

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Abstract

Falls are an event that often occurs, especially for elderly people or patients who require special attention. On a certain scale, a fall can cause quite serious injuries, both open and deep wounds. Therefore rapid and accurate technology is needed to detect whether or not a person falls, in this case especially the elderly. This research is looking for a solution to detect falls. Taken 206 times using an application on a smartphone called Phyphox utilizing accelerometer sensory feature to measure acceleration on each of the x, y, and z axes. The proposed classification method is Support Vector Machine (SVM) and K-Nearest Neighbor (K-NN). This paper show the result of calculation and comparison from both models accuracy. The result of the research shown that SVM using kernel linear have the best accuracy score that is up to 95% using 7 scenarios.

Keywords: Fall detection, K-Nearest Neighbor, Support Vector Machine, Classification