

Abstract

A fall is a sudden down or uncontrollable condition caused by the earth's gravity. At this time falling in the elderly is a global health issue. According to the World Health Organization (WHO), the prevalence of falls in the elderly currently reaches 30% to 50%, and more than 80% of premature deaths in the elderly are due to falls. This occurs in low and middle income countries. Therefore, this research builds a fall detection system to overcome this problem. The way the system works is to use a webcam. Which will monitor the activity of the object in the frame and use the Posenet library to determine the skeleton point on the body of the object in the frame. then the output from posenet is extracted on CNN classification modeling. By using the classification of the Convolutional Neural network (CNN). The system can determine the position of the object in the frame. The results of this detection system will be in the form of a fall accuracy value according to the object's movement in the frame. If the object falls, the value will show the number 1.00 indicating the object is detected in a falling state. Otherwise 0.00 if no fall is detected.

Keywords : *Jatuh, CNN, Model PoseNet.*