**Project Report**

**on**

**Human Fall Detection**

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**Project Title:** Human Fall Detection

**Abstract:**

The basic idea behind our project is to take care of our loved one’s. Falls are very dangerous situations especially among elderly people, because they may lead to fractures and other injuries. Without timely rescue, falls may even endanger their lives. The existing sensor-based fall monitoring systems has some disadvantages, such as apple’s watches, that are too expensive which can’t be affordable by many people and inconvenience to carry for users. We propose a human fall monitoring system consisting of a camera that detect the human fall.

**Introduction:**

According to the World Health Organization,falls are the second leading cause of accidental or unintentional injury deaths worldwide, and more than one third of elderly people fall once or more each year. For this group of people, once they fall, they may suffer serious health problems. Damage may be greatly reduced if they have access to timely rescue.Thus, a reliable fall monitoring system has great application value and development prospects.

Our idea is based on the principle of optical sensor-based method is to capture the image by visual sensors, such as digital cameras or Thermal camera, and then distinguishes the human body with other items using digital image processing algorithms to detect falls.

**Related Works:**

1. TCS R&D
2. APPLE(apple’s watches and mobile)

**Problem Statement:**

Our objective is to design a human fall detection algorithm, which will be able to detect the fall of a human from a given video.

**Methodology:**

**1.** Do some research on this topic.

**2.** Need to learn Python, Neural Networking.

**3.** Learn different types of algorithms, activation functions and optimizers in order to classify the images.

**4.** Learn to capture a video or detect a video(moving pictures).

**Expected Output:**

To detect the fall of a human from a video.