Abstract

Human detection and tracking is one of the tasks in computer vision which needs a lot of understanding and appreciable effort. It has a lot of use in visual surveillance, human machine interaction, robotics and many more. A lot of algorithms have been proposed by various researchers but the problem of detection and tracking has not yet been solved efficiently. There are a lot of problems for which there exists no generic solution using a single algorithm. Hence a combination of contrastive algorithms yields a comparatively good result. This paper mainly focuses on developing an algorithm using various image processing techniques without increasing the complexity and achieving comparatively better accuracy. In this paper a new method has been proposed using combination of algorithms. The algorithms used here are Histogram of Oriented Gradients (HOG), Covariance based method and Kalman Filter. The combined algorithms yield a reasonably good result.

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**Index Terms**

Computer Science  
Algorithms

**Keywords**  
Object Detection  
Object Tracking  
Video Processing  
Visual Surveillance.