

# **VISUAL SURVEILLANCE SYSTEM OF HUMAN MOTION**

## **ABSTRACT**

Visual surveillance system of human motion in multiple cameras has recently persuaded more studies in the computer vision area. There have been many surveillance systems applied to our surrounding environments such as airports, train stations, shopping malls and even private residential areas. Today most of the attacks which take place around the world are by terrorists. The need of surveillance system is to detect, track, identify people and more generally, to understand human behaviors from image sequence involving humans. A fast visual surveillance system is required to track human position, to understand the behaviors and to determine if abnormal behaviors of human such as people loitering, unauthorized access or person attempting to enter in restricted zone. Previous work focused on the identification of objects in single camera views. In complex and cluttered environments with even moderate number of moving objects the problem of tracking individual objects is significantly complicated by occlusion where an object may be partially occluded or totally disappear from camera. Where possible, the system takes advantage of multiple views of the same object to help resolve occlusions and increase the robustness of the tracking. Correspondence between multiple cameras and occlusions are important and basic problems in the vision based human tracking.

Hence the need of the hour is to develop a real time video surveillance system to detect abnormal behaviors or unusual events using multiple cameras in crowded scenarios. Based on the previous work on single detection using single stationary camera, it extends the concept to enable the tracking of multiple cameras and also maintain a security base system by multiple cameras to track person in the environments.