



RESEARCH ARTICLE

Moving Object Tracking Using Kalman Filter

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Abstract— In the field of security automated surveillance systems are very useful. Surveillance system can be used to detect and track the moving objects. First phase of the system is to detect the moving objects in the video. Second phase of the system will track the detected object. In this paper, detection of the moving object has been done using simple background subtraction and tracking of single moving object has been done using Kalman filter. The algorithm has been applied successfully on standard surveillance video datasets of CAVIAR [6] and PETS [7]. The videos used for testing have been taken using still cameras, which are located in indoor as well as outdoor environment having moderate to complex environments.

Key Terms: - Visual surveillance; Kalman filter; Object detection; Background subtraction; Object tracking
