ABSTRACT

Today the use of Surveillance Camera has been widely applied in various fields. Surveillance Camera becomes a crucial requirement in the field of protection to the public visually. Therefore it takes a Surveillance Camera that can perform optimal detection process to the object of observation.

This study proposes a Surveillance Camera with the ability to follow the motion of the object of observation. Research conducted Surveillance Camera covers how to manufacture and applied detection techniques. The object movement detection is the method. Background subtraction techniques Sequential Kernel Density Approximation and Extended Kalman Filter techniques used to determine the approximate movement of the object.

From the test results obtained parameters that determine object detection. For SKDA own technique parameters obtained σ (sigma) and the threshold for determining between foreground and background. For its own EKF parameters obtained Q (measurement noise covariance). However, in its application in the system this time, SKDA need the process long enough to detect an object that is less than optimal in its application in real time systems. For the next study, expected to use a faster method for application in real time systems in order to obtain optimal results.

keyword: *surveillance camera, object detection, Background Subtraction*