

## SEGMENTATION OF MOVING OBJECTS BASED ON MINKOWSKI DISTANCE USING K-MEANS CLUSTERING

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### ***Abstract***

*Segmentation of moving objects is one of the challenging research areas for video surveillance application. The success of object changing position for segmentation is when the moving object completely separate the foreground from its background of frame. It depends on many factors, including the use of suitable clustering method to differentiate the pixels of the foreground and background. This paper propose to use k-means as clustering method for moving object segmentation. The method is evaluated on several distance measures. Several steps are performed to conduct the moving object segmentation, such as frame subtraction, median filtering, and noise removal. These steps are proposed to improve the achievement of moving object segmentation. The performance are evaluated by using Mean of Square Error and Peak Signal to Noise Error. The value of both measurement are 135.02 and 25.52. The experimental result shows that the moving object segmentation performs the best result on Minkowski distance.*

*Keywords: K-Means, distance measure, moving object segmentation*