

## **Abstract**

*Object tracking is an application of computer science in which computer vision or machine to surf the objects or moving objects. During the search there is often a problem called occlusion, where there is interference with other objects such as crosses or hindered the object being traced by other objects. Special methods are needed to solve these problems in order to avoid tracking lost while tracking the object.*

*This final project is implemented by combining Camshift tracking algorithm - Kalman Filter and utilize predictive Kalman Filter to predict occlusion. CAMShift algorithm is object tracking algorithm that uses probability to explore color as a base object. While the Kalman filter is a recursive estimator, which requires the previous state and current measurements to estimate the current state.*

*The results of this study indicate that the combination of Camshift - Kalman Filter results as a tracking algorithm provides for each object tracking accuracy up to 100%. Handling occlusion were implemented to provide accuracy up to 81% success. While the Kalman filter alone can speed up computing time Camshift up to 12%.*

**Keyword** : Kalman Filter, CAMShift, Object Tracking, Occlusion