

## **ABSTRACT**

*Narcotics are one of the types of drugs derived from plants or non-crops, synthesis and semi-synthesis. Narcotics are often used in the world of medicine to breed or relieve pain and pain. The increasing type of drugs in circulation, the law enforcement officers have difficulty in the process of enforcement of narcotic crimes violations. Cause that, not all officers in the field know all types of narcotics in circulation. Then, needed a system that can facilitate the detection of narcotic substances around us.*

*This final task created system capable to detect and classify the narcotic substance by image processing using the Exation feature method of the Analytical component Principal (PCA) which can reduce the image dimensions without reducing The characteristics are significantly and for its classification use learning Vector quantization (LVQ).*

*The results obtained in this Final Project are applications using MATLAB which can process narcotics images to detect narcotics. The performance produced by the system is made, 82% accuracy and 0.0179 computation time using the mean standard deviasi statistical parameter, size 128x128, principal component 100, hidden size 30, learning rate 0.01 and epoch 900.*

**Keywords:** *Narcotics, Principal Component Analysis (PCA), Learning Vector Quantization (LVQ).*