

## **Abstract**

There are many methods that have been used in face detection, Neural Network, Principal Component Analysis (PCA), and Independent Component Analysis (ICA) have been studied. Independent ICA basis emphasizes the edge information in image. ICA algorithms have been successfully used in face recognition [1]. SVM is learning Machines methods based on Structural Risk Minimization (SRM) principles in order to find the best hyperplane which separates two classes in input space [7]. ICA and SVM can be combined to learn the face detection problem. The combination of ICA and SVM is hoped to proceed better performance instead of the other method that have been used.

Keywords: face detection, Independent Component Analysis (ICA), Support Vector Machine (SVM).