# ABSTRACT

Cervical cancer is caused by the Human Papilloma Virus (HPV) which attacks the cervix or cervical area, the lower area of the uterus that connects the uterus to the vital organs in women [1]. Cervical cancer is one of the most deadly and feared disease for the women. That is because the symptoms of this disease are not clearly seen and felt before it reaches an advanced stage. For that reason, early detection of cervical cancer regularly to prevent the occurrence of cervical cancer is needed. One method that is often used to perform cervical cancer screening is the Pap smear method [3]. At the introduction of the Pap smear result image, there is an error occurs in the introduction of cervical cell type, whether normal or abnormal. One reason is that doctors in identifying errors is lacking experience, especially for young doctors. For that reason there should be a system to help identify cervical cells Pap test results.

In this final project, Gabor Filters are used as feature extraction and Evolving ANN as a classifier to identify the type of cervical cells, whether normal or abnormal, and further testing to determine the performance of the system based on the Positive Predictive Value (PPV) and Negative Predictive Value (NPV) in identifying cervical cell types.

Based on the previous research, the result value of accuracy in terms of the introduction of normal and abnormal cell types is quite good though cannot be said very well. From the results of the PPV value, the probability of a person known to be contained abnormal cells in the cervix with positive test results are abnormal cells is 81.11%. While the results of the NPV, the probability of a person can be known there is no abnormal cells in the cervix with negative test results are abnormal cells is 73.33%.

Keyword : Cervical Cancer, Pap Smear, Gabor Filter, Evolving ANN