ABSTRACT

Image processing technology is growing, many image processing applications are very useful for the purposes of detection, security, health, and the other.So many areas that use image processing technology as the basic technology to help solve problems associated with that field.

The rise of readings that contains elements of pornography and violence to make people, especially parents concerned about the quality of reading to their children. The impact of pornography potentially cause brain damage exceeds the dangers of drugs. On the other hand, the availability of time to filter the contents of each reading will be limited due to busy working parents.

This thesis aims to create a system capable of detecting an illegal document which contains the word pornography on a digital image of scanned text documents. The series of processes performed by the system include image input, preprocessing, segmentation of words, the normalization of the results of segmentation, feature extraction, algorithms and artificial neural network Self Organizing Maps.

To improve the performance of the system, then conducted tests on the system. Tests conducted by performing an analysis of some parameters Self Organizing Maps Self-Organizing.Parameter Self Organizing Maps Self-Organizing tested are the type of network topology and distance function does not affect the accuracy of the system. Maximum accuracy obtained is 99.73% with a ± 228 564 seconds of computing time.

Keywords: Self organizing maps, text forbidden, Indonesian Language, and pornography