

Abstract

Image is used as a communication for delivering information. The authenticity of an image has an important role in many fields. With the variety of image processing software, makes the process of image manipulation becomes easier to do than ever before as well as their various social media as a means of distribution to create the image that has been manipulated very easily spread to many people. One of image manipulation methods most commonly used are Copy-move. Hence the frequent occurrence of manipulation of the image, we need a way to detect forgeries image, especially for detection copy-move image.

In this final project, performed detection copy-move forgery on the digital image by using Local Binary Pattern (LBP) and SVD-matching. Local Binary Pattern (LBP) is used for extracting features of each image blocks pixel then the results of feature extraction from LBP become a feature vector, to be used for the matching process. Meanwhile, SVD-matching is used for matching blocks of pixel image that indicated copy-move image blocks. In the the process of matching with the SVD-matching consists of several steps that are proximity matrix calculation with Euclidean distance and similarity matrix calculation with Normalized Cross Correlation and \neg SVD Factorization. By using both methods, matching of blocks of pixels between the image and then detects the copy-move manipulated area in the image and can detecting copy-move image and original image.

Based on the results of research, by applying the method of Local Binary Pattern (LBP) move and SVD-matching, produced a method that can detect the copy-move image forgery reasonably well. The accuracy obtained from the best system based testing area reached 62.33%. Besides, the system can detect the copy-move image and the original image well because it has an accuracy until 81.7% and has a value of TPR and TNR by 0.800 when the threshold used is 0.0051.

Keyword: *Image forgery, copy-move, image, detection, Local Binary Pattern (LBP), SVD-matching.*