

Abstract

Digital image always considered as an trusted evidence because it is one of the richest information storage media with many kind of informations. But with the development of technology in digital field such as, software photo editing, it became more easier to do image forgery. One of the common image forgery is duplicated region, where a region in image copied then inserted in the same image with different region. We must realise that vision with blind eyes cannot determine that the photo is real or fake. Therefore, this is required a system to detect image forgery, mainly to detect image duplicated region.

In this final project duplicated region detection has been done by using DWT methods, Phase Correlation, and Micro-Macro blok approach in image forgery. DWT used as image transformation. Image transformation done to get coefficient results in subband level, which used for matching process. In matching process Phase Correlation method done to find the biggest peak result from pictures that had matched. Micro-Macro blok approach also used to get region duplications and better precision.

Based on research that has been done, by using DWT, Phase Correlation, and Micro-Macro Blok approach, has produced a method that can detect duplicated region in image forgery. This system proceeds 85% accuracy.

Keywords : *Image Forgery, Duplicated Region, DWT (Discrete Wavelet Transform), Phase Correlation, Similarity Checking, Pendekatan Micro-Macro Blok*