ABSTRACT

Image steganalysis is one of science field which analyzes a condition whether an image has been embedded with bits of secret message or not. The simplest way to embed a message into an image is by changing the value of image pixel LSB to conform with message bits which purpose is to conceal the changes of values in the image media (because the changes only occurs in the media`s last bit). This TA discuss one of image steganalysis technique that can be used to detect whether there is a secret message as well as its length, namely Weighted Stego-Image (WS) Steganalysis.

This WS Steganalysis technique utilizes the role of pixel predictor function to predict the value of image before message embedding process. The function that is used in this techique produces value of pixel that being predicted by computing the average of its pixel neighborhood. This function yields inaccurate result when it is tested on image with uneven color texture and shows many edge on its content.In this TA, we propose additional modification of pixel predictor function in WS Steganalysis using interpolation technique. The result shows that implementation of edge-based interpolation technique on WS Steganalysis provides more accurate payload prediction value compared to WS Steganalysis without interpolation.

Keywords : *steganography, steganalysis, weighted stego-image steganalysis, image interpolation*