

Abstract

In general, the melanoma skin detection method has 3 stages, namely pre-processing, feature extraction and classification. The results of the whole detection process are strongly influenced by the results at the pre-processing stage, especially in the denoising algorithm. From the literature that proposes skin cancer image detection methods, some of them use denoising algorithms which still provide less accurate detection results. An analysis of the best denoising algorithm has been carried out. The best denoising algorithm method produced is Wiener Filter 3x3 for Gaussian noise types, resulting in a Peak Signal to Noise Ratio(PSNR) value of 34,679 dB and a Mean Squared Error(MSE) value of 0.00753. And when tested into the prototype, it also managed to detect skin cancer Melanoma, Basal Cell Carcinoma(BCC) and Normal Skin.

Keywords: Melanoma, Denoising, Wiener Filter, Gaussian.

