**Abstract**

Medical images are most of the time influenced by noise because of errors happened in the way toward decoding signals from analog to- digital, the noisy sensor as well as occurred during the communication process. This corrupted pixel certainly modifies intensity values of remaining noiseless pixels in an input image. In order to eliminate noise and enhance the image quality, this paper proposed a novel technique for pancreatic cancer PET scan image using Histogram Equalization (HE) based Adaptive Center Weighted Median filter (ACWM). The technique is checked against medical image noise and compared with existing methods. Results are compared using Signal to Noise Ratio (SNR), Peak Signal to Noise Ratio (PSNR), Structural Similarity Index Measure (SSIM) and Mean Square Error (MSE) for assessing the quality of denoised images. It is observed that the HE/ACWM is a magnificent method for preserving detail smoothly that can suppress image noise without destroying fine details.