



Analysis

We use three techniques for audio denoising (WAVELET, FIR, IIR) and compare between them to know the best one

This comparison is done by calculating the :

- MSE (Mean square error)
- PSNR (peak signal-to-noise ratio)



Results

As we compared between three signals with three different frequencies (Low,Normal,High) with our parameters.

➤ Results of Denoising :

EXPERIMENT 3 (Low Frequency):

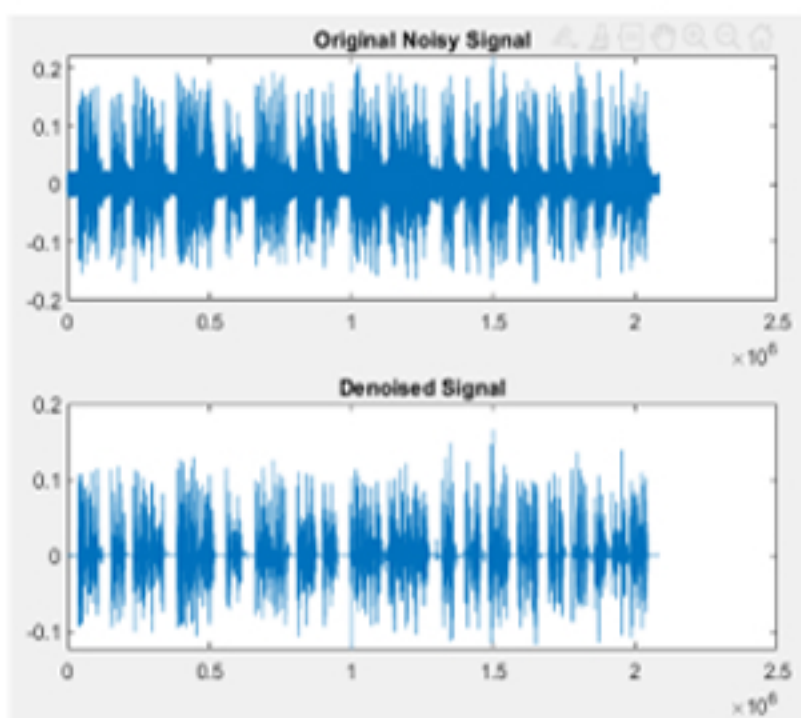


FIG.4

EXPERIMENT 2 (High Frequency):

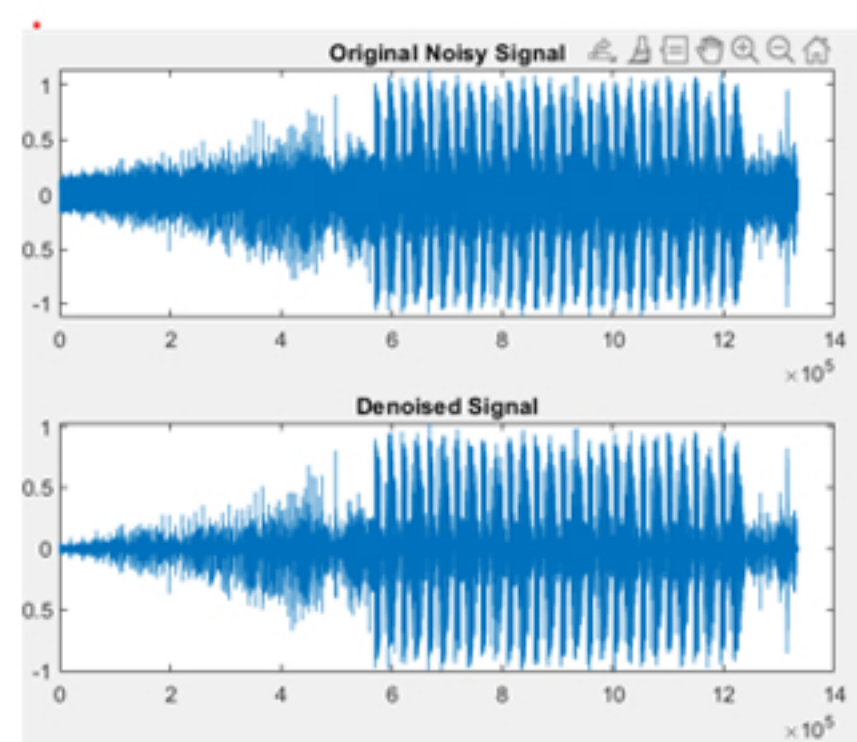


FIG.5

EXPERIMENT 1 (Normal Frequency):

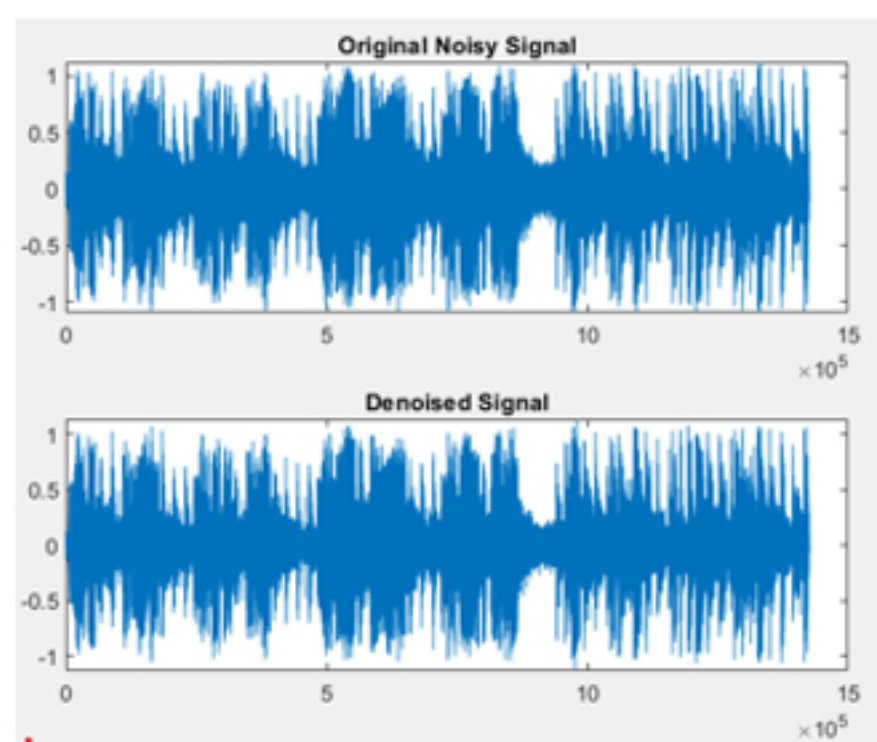
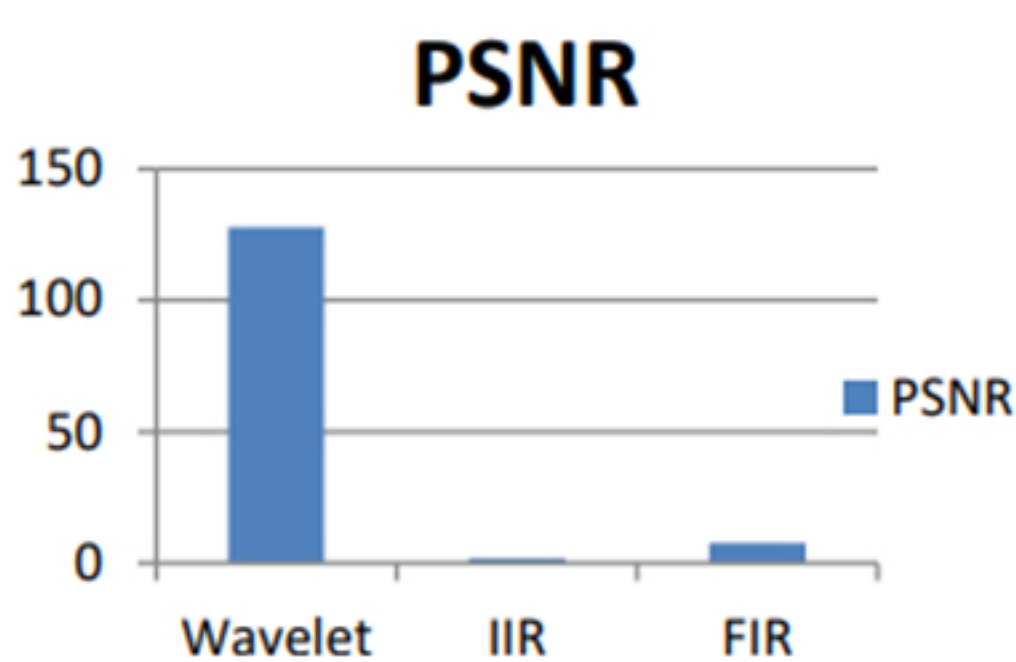
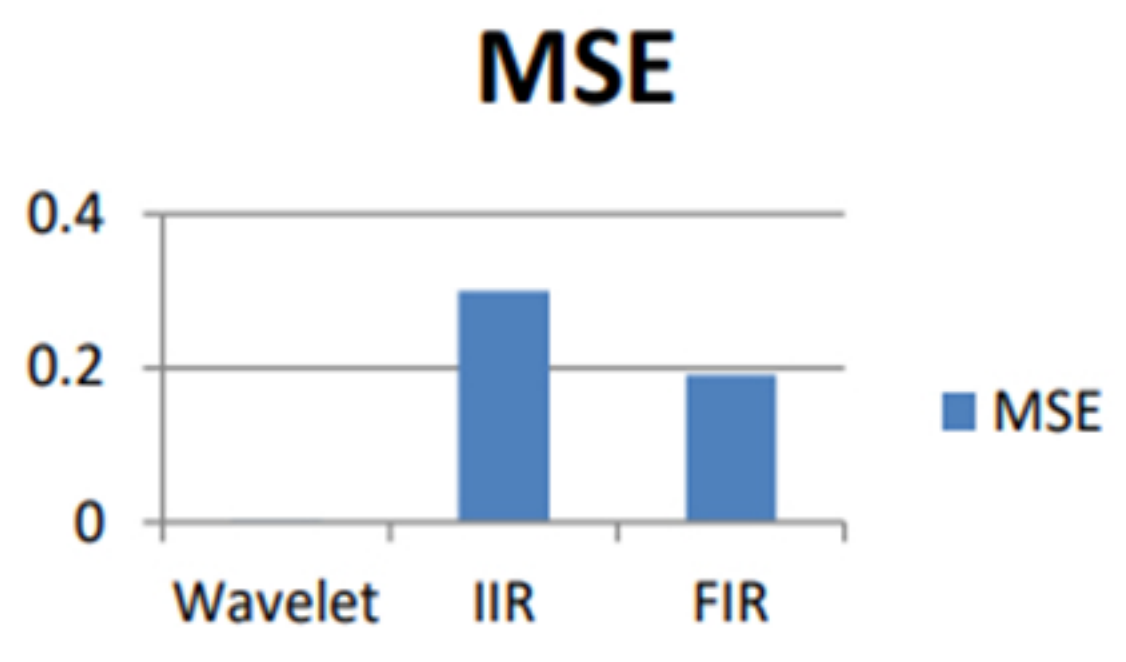


FIG.6

➤ Parameters Results :



(A)



(B)



Conclusion & Future Works



Wavelet Method for Audio Performance

Best method for high-performance audio files

Recommended for use at normal frequency (40 - 60) kHz



Future Works

Testing Bilinear Transform, Impulse Invariance and Step Invariance

Potential testing of Adaptive LMS technique

