

ABSTRACT

SPEECH DENOISING USING WAVELET PACKET TRANSFORM AND TEAGER ENERGY OPERATOR

Denoising is a signal processing method to remove noise in audio, picture or others signal. Many method are founded to do denoising process, e.g. time adapted thresholding is recognized by Teager Energy Operator

In this graduation paper, Teager Energy Operator in Wavelet Packet is chose for denoising process. Energy Operator is usage for calculate value of threshold in soft threshold method. This Method is expected to repair the quality of signal, on this case to force down noise level.

The denoising system performance is analyzed by quality of stereo voice, on this case the denoising signal. In this research analyzed through objective using SNR result and subjective criteria through MOS (mean opinion Score) for improve the quality of voice.

On The analyze result, it can repair up to 10.53 dB on the SNR input 0 dB, result is calculate for the time adapted threshold where is calculate by teager energy operator.

keywords: *Wavelet paket, Voice stereo, time adapted thereshold, teager energy operator, denoising, gaussian noise.*