REAL–TIME SPEECH VISUALIZATION SYSTEM :KANNON – APPLYING AUDITORY CHARACTERISTICS (MonAmOR9)

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✶ Abstract :

We have been developing a real time speech–displaying system called "KanNon" which helps deaf person to understand speaker's speech contents. We designed the KanNon system to display a sound spectrogram, pitch frequency and loudness of speech as well as characters by speech–recognition system as real–time scrolling image. For the purpose of displaying formant patterns clearly with high accuracy, we applied Burg method combining with the minimum cross–entropy (Burg–MCE) method, and human auditory characteristics such as an equal loudness preemphasis and mel–scale frequency to the sound spectrogram. Finally, we show more effective display for the spectrogram reading in the KanNon system.

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