A NEW APPROACH TO MULTICHANNEL AUDIO SIGNAL ACQUISITION AND SUBBAND PROCESSING (WedPmPO3)

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Abstract :

This paper presents results obtained when processing a voice signal collected by several microphones using GSC structure with subband processing. The acquisition has been realized in two ways: by means of an audio acquisition card and a microphone array developed for the work and through an specific system (Mark III structure). We have evaluated the results with different subband transforms (in the adaptive branch of GSC), maintaining the microphones number constant and considering all or part of the adaptive coefficients. The aim of the structure is that, in an environment with several speakers talking in front of the array, the output is as close as possible to the signal of one of them (the one placed orthogonally to the array) and that it adapt quickly to possible environment changes. Thus, by means of arithmetic−harmonic sphericity distances computation quantitative results of a speaker recognition system will be defined.

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