AN EFFICIENT FAST STEREO ECHO CANCELER BY PAIRWISE OPTIMAL WEIGHT REALIZATION TECHNIQUE (ThuAmPO2)

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Abstract :

This paper presents a novel stereophonic acoustic echo canceling scheme. The proposed scheme is based on the ideas of ``simultaneous use of two different states of inputs [Yukawa & Yamada, IEICE 2004]'' and ``an accelerating weight technique named POWER [Yukawa & Yamada, EUSIPCO 2004]''. The two states generate two solution sets, of which the intersection is expected to be fairly small and to contain the true impulse response of echo paths. The POWER technique and the simultaneous use of the inputs find a good direction to the intersection, realizing thus fast convergence. Numerical examples demonstrate that the proposed scheme significantly improves the convergence behavior compared with conventional methods in system mismatch (i.e., normalized coefficients error) and Echo Return Loss Enhancement (ERLE).

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