ABSTRACT

DOUBLE MODE LONG TERM PREDICTION IN SPEECH CODING

The invention relates to a method of coding a sampled speech signal vector (s(n)) in an analysis-by-synthesis coding method by forming an optimum excitation vector comprising a linear combination of a code vector from a fixed code book (12) and a long term predictor vector. A first estimate of the long term predictor vector is formed in an open loop analysis (22, 24, 30, 32, 34, 36). A second estimate of the long term predictor vector is formed in a closed loop analysis (g_L, 14, 16, 20, 22, 24, 28, 34, 36). Finally, each of the first and second estimates are combined in an exhaustive search (g_j, g_L, 14, 16, 20, 22, 24, 28, 36) with each code vector of the fixed code book (12) to form that excitation vector that gives the best coding of the speech signal vector (s(n)).

(Figure 4)