This Sheet Has Been Replaced



ABSTRACT

SPEECH CODING

In a codebook excited speech coder, speech in analysed (200) to produce coefficients of a synthesis filter and (203, 204) the parameters of a long-term prediction filter (LTP) and a codeword indication one of a set of excitations (stored in 205), the results being transmitted to a receiver where they can be used to resynthesise the speech. The LTP and excitation analysis involve computation (224) of impulse response products (stored in 301, 302). Computation of new products is performed by adding additional terms to products already formed. Multiplication of these products by excitation terms is performed using a pointer table (303) storing precalculated addresses of locations in the store (301, 302). If some excitations are shifted versions of others, some addressed can be obtained by modifying other addresses.

The LTP analysis (203) may include selection between a simple delay prediction and a prediction consisting of the sum of two differently delayed terms, to provide improved predictor delay resolution.