ERROR BURST DETECTION

ABSTRACT

A modulated signal carrying speech or other digitally coded information is demodulated (1): a likelihood signal l(t) is produced (e.g. in Viterbi decoder 4) for each demodulated symbol, indicating its reliability. This is used to update probabilities $P_g(t)$, $P_b(t)$ of the transmission channel being in a relatively error-free or error-prone state, using a Viterbi algorithm, in dependence on stored parameters representing estimates of the probability transitions between the states. A decision signal E(t) is generated dependent on the relative magnitudes of the probabilities $P_g(t)$, $\overline{P_b}(t)$. The result may be used to inhibit the use of the affected bits, e.g. by supplying a speech decoder 9 with parameters (stored in 82a etc) from an earlier speech frame.

(Fig. 3)