

Title (en)

System for predictive encoding/decoding of a digital speech signal by an adaptive transform with embedded codes

Title (de)

System zur prädiktiven Kodierung/Dekodierung eines digitalen Sprachsignals mittels einer adaptiven Transformation mit eingebetteten Codes

Title (fr)

Système de codage-décodage prédictif d'un signal numérique de parole par transformée adaptative à codes imbriqués

Publication

**EP 0608174 B1 19980812 (FR)**

Application

**EP 94400109 A 19940118**

Priority

FR 9300601 A 19930121

Abstract (en)

[origin: EP0608174A1] The invention relates to a system for the predictive encoding of a digital speech signal with embedded codes. The encoded digital signal (Sn) is formed by an encoded speech signal and, if appropriate, by auxiliary data. A perceptual weighting filter (11) is formed by a filter for short-term prediction of the speech signal to be encoded so as to produce a frequency distribution of the quantisation noise. A circuit (12) makes it possible to subtract from the perceptual signal @, the contribution from the past excitation signal @ so as to deliver an updated perceptual signal Pn. A long-term prediction circuit (13) is formed, as a closed loop, from a dictionary updated with the past excitation @ modeled for the lowest throughput and enables an optimal wave form and an associated estimated gain @ to be delivered. An orthonormal transform module (MT) includes an adaptive transform module (14) and a module (16) for progressive modelling by orthogonal vectors, this making it possible to deliver indices representing the encoded speech signal. A circuit (19) allows the insertion of auxiliary data through bit stealing from the encoded speech signal. Application to any transmission system and to the storage of speech signals. <IMAGE>

IPC 1-7

**G10L 9/14**

IPC 8 full level

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CPC (source: EP US)

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