Title (en)

Method for coding an analog signal having a repetitive nature and a device for coding by said method.

Title (de)

Verfahren und Einrichtung zur Kodierung eines Analogsignals mit Wiederholeigenschaft.

Title (fr)

Méthode et dispositif de codage d'un signal analogique présentant un caractère répétitif.

Publication

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Application

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Abstract (en)

Method and device for coding a signal segment of a sampled analog signal having a repetitive nature according to the principle of long-term prediction (LTP), in which an accuracy is achieved in the coding which is comparable to that of high-resolution LTP (HLTP) without the complexity appreciably increasing with respect to that of LTP. According to the method, after determining the number of samples D between the beginning of the segment to be coded and the beginning of the most similar segment determined according to the LTP principle, the number of samples in the segment to be coded is increased by a predetermined factor Ob by always placing (Ob - 1) samples having a value equal to 0 between two consecutive samples, and the number of samples in the preceding segment is also increased by the factor Ob; in the preceding segment, partial segments Cd are determined for which it is the case that the number of samples Dd, expressed in the numbers of samples after oversampling, between the initial time instant of the segment to be coded and the initial time instant of a partial segment Cd fulfils: $Dd = (D * Ob)/d$, in which $d = 1, 2, 3, 4 \ldots n$, where n is a positive integer and where Ob and n are chosen in a manner such that Dd is always an integer, after which, in the segments Cd, the sample values are determined, by means of an interpolation technique, at predetermined positions which are situated at a spacing Dd from the original samples in the segment to be coded; of the segments Cd, that segment Cd is chosen as the most similar segment which has a correlation value Rd with the samples of the segment to be coded for which it is the case that $Rd >/= q * Rmax$, where $q < 1$ and Rmax is the maximum correlation value which has been found in correlating the segments Cd and the segment to be coded, and is that segment which yields the smallest associated value of Dd. <IMAGE>

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