Title (en)

DIGITAL SPEECH CODER HAVING IMPROVED SUB-SAMPLE RESOLUTION LONG-TERM PREDICTOR

Title (de)

NUMERISCHER SPRACHKODIERER MIT VERBESSERTER LANGZEITVORHERSAGE DURCH SUBABTASTAUFLÖSUNG

Title (fr)

CODEUR DE PAROLE NUMERIQUE A PREDICTEUR A LONG TERME AMELIORE A RESOLUTION AU NIVEAU SOUS-ECHANTILLON

Publication

EP 0450064 B1 20000419 (EN)

Application

EP 91905041 A 19900625

Priority

- US 9003625 W 19900625
- US 40220689 A 19890901

Abstract (en)

[origin: WO9103790A1] A digital speech coder includes a long-term filter (124) having an improved sub-sample resolution long-term predictor which allows for subsample resolution for the lag parameter L. A frame of N samples of input speech vector s(n) is applied to an adder (510). The output of the adder (510) produces the output vector b(n) for the long term filter (124). The output vector b(n) is fed back to a delayed vector generator block (530) of the long-term predictor. The nominal long-term predictor lag parameter L is also input to the delayed vector generator block (530). The long-term predictor lag parameter L can take on non-integer values, which may be multiples of one half, one third, one fourth or any other rational fraction. The delayed vector generator (530) includes a memory which holds past samples of b(n). In addition, interpolated samples of b(n) are also calculated by the delayed vector generator (530) and stored in its memory, at least one interpolated sample being calculated and stored between each past sample of b(n). The delayed vector generator (530) provides output vector q(n) to the long-term multiplier block (520), which scales the long-term predictor response by the long-term predictor coefficient beta . The scaled output beta q(n) is then applied to the adder (510) to complete the feedback loop of the recursive filter (124).

IPC 1-7

G10L 19/08; G10L 19/12

IPC 8 full level

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CPC (source: EP)

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