

Title (en)

Method for processing speech signals by subtracting a noise function

Title (de)

Verfahren zur Verarbeitung von Sprachsignalen durch die Subtraktion einer Rauschfunktion

Title (fr)

Procédé de traitement de la parole par soustraction d'une fonction du bruit

Publication

EP 1104925 A1 20010606 (EN)

Application

EP 99124195 A 19991203

Priority

EP 99124195 A 19991203

Abstract (en)

The invention relates to a method for processing speech signals by subtracting a noise function. The method comprises the transformation of noise from a time domain into an other domain, preferably a frequency domain, using FFT and the weighting of the noise spectrum to generate a noise signal using the signal-to-noise ratio of the speech signal or an upper and lower limit for a noise amplitude in the frequency domain or an analysis of a noise type or an envelope of the speech signal in the frequency domain. The weighted noise signal is then subtracted from the speech signal spectrum to generate a speech signal with reduced noise. After transforming the speech signal from the frequency domain to the time domain, speech coding is performed on the speech signal with reduced noise. The invention improves the speech quality by avoiding the reduction of too much noise from the speech signal. <IMAGE>

IPC 1-7

G10L 21/02

IPC 8 full level

G10L 21/0208 (2013.01)

CPC (source: EP)

G10L 21/0208 (2013.01)

Citation (search report)

- [A] US 5757937 A 19980526 - ITOH KENZO [JP], et al
- [Y] FR 2765715 A1 19990108 - SEXTANT AVIONIQUE [FR]
- [A] US 5781883 A 19980714 - WYNN WOODSON DALE [US]
- [XY] SIM B L ET AL: "A PARAMETRIC FORMULATION OF THE GENERALIZED SPECTRAL SUBTRACTION METHOD", IEEE TRANSACTIONS ON SPEECH AND AUDIO PROCESSING, US, IEEE INC. NEW YORK, vol. 6, no. 4, 1 July 1998 (1998-07-01), pages 328 - 336, XP000785363, ISSN: 1063-6676
- [A] ARSLAN L ET AL: "NEW METHODS FOR ADAPTIVE NOISE SUPPRESSION", PROC. IEEE INTERNATIONAL CONFERENCE ON ACOUSTICS, SPEECH, AND SIGNAL PROCESSING (ICASSP '95), vol. 1, 9 May 1995 (1995-05-09) - 12 May 1995 (1995-05-12), IEEE, New York, US, pages 812 - 815, XP000658118, ISBN: 0-7803-2432-3

Cited by

EP1349148A4; CN106409297A; US7590528B2; EP1526511A1; US7944613B2; US8456741B2; US7495832B2

Designated contracting state (EPC)

DE DK

DOCDB simple family (publication)

EP 1104925 A1 20010606

DOCDB simple family (application)

EP 99124195 A 19991203