Title (en)

Frequency filtering method using a Wiener filter applied to noise reduction of acoustic signals

Title (de)

Verfahren zur Frequenzfilterung mittels eines Wiener Filters für die Geräuschunterdrückung von akustischen Signalen

Title (fr)

Procédé de filtrage fréquentiel appliqué au débruitage de signaux acoustiques mettant en oeuvre un filtre de Wiener

Publication

EP 1132896 A1 20010912 (EN)

Application

EP 00400623 A 20000308

Priority

EP 00400623 A 20000308

Abstract (en)

A method and apparatus for suppressing acoustic noise in an acoustic signal (s(n)) represented by the frequency components of a plurality of frames each representing a small portion of the acoustic signal, comprising estimating the average magnitude of noise in each frequency component over a plurality of frames; estimating the variability of the magnitude of noise (110) in each frequency component; and generating denoising filter components in dependence on the estimated noise magnitudes, the estimated variability of the noise magnitude in each frequency component and the magnitude of each frequency component, and varying the magnitude of each frequency component (140) in dependence on the corresponding denoising filter component. This has the significant advantage of taking account of the variability of the magnitude of noise within each frequency component over time, making possible determination of an approximate probability of any one frequency component being largely comprised of noise or alternatively of wanted 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)

- [X] EP 0918317 A1 19990526 - SEXTANT AVIONIQUE [FR]
- [A] EP 0913810 A2 19990506 - SONY CORP [JP]
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Designated contracting state (EPC)

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