

Title (en)

Speech coding method applying noise reduction by modifying the codebook gain

Title (de)

Verfahren zur Sprachkodierung mit Geräuschunterdrückung durch Modifizierung der Kodebuchverstärkung

Title (fr)

Procédé de codage de la parole avec réduction de bruit au moyen de la modification du gain du livre de codage

Publication

EP 1521243 A1 20050406 (EN)

Application

EP 03022251 A 20031001

Priority

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Abstract (en)

The invention refers to a method for encoding an acoustic signal ($y(n)$) containing a speech component and a noise component by using an analysis through synthesis method, wherein for encoding the acoustic signal a synthesised signal is compared with the acoustic signal for a time interval, said synthesised signal being described by using a fixed codebook and an associated fixed gain, comprising the steps: Determining a fixed gain ($g(y(m))$) of the acoustic signal ($y(n)$) for the time interval; Extracting an estimated fixed gain ($g(<\text{ANd}>n)$) of the noise component from the acoustic signal ($y(n)$) for the time interval; Deriving an estimate of the fixed gain ($g(<\text{ANd}>s(m))$) of the speech component by subtracting said fixed gain of the noise component from the fixed gain ($g(y(m))$) of the acoustic signal for the time interval. <IMAGE>

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G10L 21/02; G10L 19/04

IPC 8 full level

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CPC (source: EP)

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Citation (search report)

- [Y] US 2002184010 A1 20021205 - ERIKSSON ANDERS [SE], et al
- [A] EP 1301018 A1 20030409 - CIT ALCATEL [FR]
- [XY] CHANDRAN R ET AL: "COMPRESSED DOMAIN NOISE REDUCTION AND ECHO SUPPRESSION FOR NETWORK SPEECH ENHANCEMENT", PROCEEDINGS OF THE 43RD. IEEE MIDWEST SYMPOSIUM ON CIRCUITS AND SYSTEMS. MWSCAS 2000. LANSING, MI. NEW YORK, NY: IEEE, US, vol. 1 OF 3, 8 August 2000 (2000-08-08) - 11 August 2000 (2000-08-11), pages 10 - 13, XP002951730, ISBN: 0-7803-6476-7
- [A] LIM J S ET AL: "ENHANCEMENT AND BANDWIDTH COMPRESSION OF NOISY SPEECH", PROCEEDINGS OF THE IEEE, IEEE. NEW YORK, US, vol. 67, no. 12, December 1979 (1979-12-01), pages 1586 - 1604, XP000891496, ISSN: 0018-9219

Cited by

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