Title (en)

Speech fundamental frequency estimator and method for estimating a speech fundamental frequency

Title (de)

Sprachgrundfrequenzkalkulator und Verfahren zur Kalkulation einer Sprachgrundfrequenz

Title (fr)

Estimateur de la fréquence fondamentale de la parole et méthode pour estimer une fréquence fondamentale de la parole

Publication

EP 1944754 A1 20080716 (EN)

Application

EP 07000568 A 20070112

Priority

EP 07000568 A 20070112

Abstract (en)

The present invention relates to a speech fundamental frequency estimator (1100) which is configured for receiving a first set of values (Y 1) and a second set of values (Y 2), the first set of values (Y 1) being a frequency domain representation of a first set of time domain signal values (y 1) within a first time interval (t 1) and the second set of values (Y 2) being a frequency domain representation of a second set of time domain signal values (y 2) within a second time interval (t 2), the second time interval (t 2) being later than and offset from the first time interval (t 1). Furthermore, the speech fundamental frequency estimator (1100) comprises a first power density spectrum calculator (1102) which is configured for storing a version of the first set of values (Y 1) and being configured for providing values of a first power density spectrum (S ^ y Ü #¢ y Ü #¢ d © µ #¢ n) by multiplying the stored version of the first set of values (Y 1) with a conjugate complex version of the second set of values (Y 2). In addition the speech fundamental estimator (1100) comprises a second power density spectrum calculator (1104) being configured for providing values of a second power density spectrum (S ^ y Ü #¢ y Ü © µ #¢ n) by multiplying a version of the second set of values (Y 2) with a complex conjugate verisin of the second set of values (Y 2). Finally, the speech fundamental frequency estimator (1100) includes an analyzer 1(106) which is configured for determining the speech fundamental frequency estimate (fp(n)) on the basis of the values of the first power density spectrum (S ^ y Ü #¢ y Ü #¢ d © µ #¢ n) and the values of the second power density spectrum (S ^ y Ü #¢ y Ü © µ #¢ n) .

IPC 8 full level

G10L 25/90 (2013.01); G10L 21/0216 (2013.01)

CPC (source: EP)

G10L 25/90 (2013.01); G10L 2021/02168 (2013.01)

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Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR

Designated extension state (EPC)

AL BA HR MK RS

DOCDB simple family (publication)

EP 1944754 A1 20080716; **EP 1944754 B1 20160831**

DOCDB simple family (application)

EP 07000568 A 20070112