

Title (en)  
AN ADAPTIVE THRESHOLD VOICED DETECTOR

Publication  
**EP 0309561 B1 19921209 (EN)**

Application  
**EP 88903995 A 19880112**

Priority  
US 3429887 A 19870403

Abstract (en)  
[origin: WO8807739A1] Apparatus for detecting a fundamental frequency in speech by statistically analyzing a discriminant variable generated by a discriminant voiced detector (102) so as to determine the presence of the fundamental frequency in a changing speech environment. A statistical calculator (103) is responsive to the discriminant variable to first calculate the average of all of the values of the discriminant variable over the present and past speech frames and then to determine the overall probability that any frame will be unvoiced. In addition, the calculator informs two values, one value represents the statistical average of discriminant values that an unvoiced frame's discriminant variable would have and the other value represents the statistical average of the discriminant values for voice frames. These latter calculations are performed utilizing not only the average discriminant value but also a weight value and a threshold value which are adaptively determined by a threshold calculator (104) from frame to frame. An unvoiced/voiced determinator (105) makes the unvoiced/voiced decision by utilizing the weight and threshold values.

IPC 1-7  
**G10L 3/00**

IPC 8 full level  
**G10L 11/00** (2006.01); **G10L 11/04** (2006.01); **G10L 11/06** (2006.01); **G10L 15/02** (2006.01); **G10L 25/00** (2013.01); **G10L 25/90** (2013.01); **G10L 25/93** (2013.01)

CPC (source: EP)  
**G10L 25/93** (2013.01)

Citation (examination)  
Atal, Rabiner: "A pattern recognition approach to voiced/unvoiced/ silence classification ..." IEEE ASSP 24 No 3, 1976, Prezas et al as cited on p. 1 of description. Note: these documents were cited in the search report of a parallel application (88901684.6) by the same applicant

Designated contracting state (EPC)  
AT BE DE FR GB IT NL

DOCDB simple family (publication)  
**WO 8807739 A1 19881006**; AT E83329 T1 19921215; AU 1700788 A 19881102; AU 598933 B2 19900705; CA 1336208 C 19950704; DE 3876569 D1 19930121; DE 3876569 T2 19930408; EP 0309561 A1 19890405; EP 0309561 B1 19921209; HK 21794 A 19940318; JP H01502858 A 19890928; JP H0795239 B2 19951011; SG 60993 G 19930709

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