Title (en)

SPEECH ANALYSIS-SYNTHESIS METHOD AND APPARATUS THEREFOR

Publication

EP 0421360 A3 19911227 (EN)

Application

EP 90118888 A 19901002

Priority

JP 25750389 A 19891002

Abstract (en)

[origin: EP0421360A2] An impulse sequence of a pitch frequency is detected from a phase-equalized prediction residual of an input speech signal S(t), and a quasi-periodic impulse sequence is obtained by processing the impulse sequence so that a fluctuation in its pitch frequency is within an allowed limit range. The magnitudes of the quasi-periodic impulse sequence are so determined as to minimize an error between the waveform of a synthesized speech obtainable by exciting an all-pole filter (18) with the quasi-periodic impulse sequence and the waveform of a phase-equalized speech obtainable by applying the input speech signal to a phase equalizing filter (5). Preferably, the quasi-periodic impulse sequence is supplied to the all-pole filter after being applied to a zero filter (10) in which it is given features of the prediction residual of the speech. Coefficients of the zero filter are also determined so that the error of the waveforms of the synthesized speech and the phase-equalized speech is minimum.

IPC 1-7

G10L 9/14

IPC 8 full level

G10L 19/04 (2013.01); **G10L 13/08** (2013.01); **G10L 13/10** (2013.01); **G10L 19/06** (2013.01); **G10L 19/08** (2013.01); **G10L 19/10** (2013.01)

CPC (source: EP)

G10L 19/08 (2013.01)

Citation (search report)
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- [A] ICASSP'86 - IEEE-IECEJ-ASJ INTERNATIONAL CONFERENCE ON ACOUSTICS, SPEECH, AND SIGNAL PROCESSING, Tokyo, 7th - 11th April 1986, vol. 3, pages 1701-1704, IEEE, New York, US; T. MORIYA et al.: "Speech coder using phase equalization and vector quantization"
- [XP] ICASSP'90 - 1990 INTERNATIONAL CONFERENCE ON ACOUSTICS, SPEECH, AND SIGNAL PROCESSING, Albuquerque, New Mexico, 3rd - 6th April 1990, vol. 1, pages 213-216, IEEE, New York, US; M. HONDA: "Speech coding using waveform matching based on LPC residual phase equalization"

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Designated contracting state (EPC)

DE FR GB SE

DOCDB simple family (publication)

EP 0421360 A2 19910410; **EP 0421360 A3 19911227**; **EP 0421360 B1 19960117**; CA 2026640 A1 19910403; CA 2026640 C 19960709; DE 69024899 D1 19960229; DE 69024899 T2 19960704; JP H03119398 A 19910521; JP H0782360 B2 19950906

DOCDB simple family (application)

EP 90118888 A 19901002; CA 2026640 A 19901001; DE 69024899 T 19901002; JP 25750389 A 19891002