Title (en)

ELIMINATION OF NOISE FROM A SPEECH SIGNAL

Title (de)

GERÄUSCHUNTERDRÜCKUNG AUS EINEM SPRACHSIGNAL

Title (fr)

ELIMINATION DU BRUIT D'UN SIGNAL VOCAL

Publication

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Application

EP 00979526 A 20001027

Priority

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- EP 0010713 W 20001027
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Abstract (en)

[origin: WO0131640A1] A method for reducing noise in a noisy time-varying speech input signal <i>y</i> includes receiving the input signal <i>y</i> and deriving a plurality of spectral component signals representing respective magnitudes |<i>Y</i>(<i>k</i>)| of spectral components of the input signal <i>y</i>. A correlation coefficient gamma >sn< is obtained which indicates a correlation in the spectral domain between a clean speech signal component <i>s</i> and a noise signal component <i>n</i> present in the input signal <i>y</i>(<i>y</i> = <i>s</i> + <i>n</i>). Magnitudes of respective noise-suppressed spectral components Ŝ(<i>k</i>) are estimated by solving a correlation equation which gives a relationship between the magnitudes of the respective spectral components |<i>Y</i>(<i>k</i>)| of the noisy input signal <i>y</i>, the spectral components |<i>S</i>(<i>k</i>)| of the clean speech signal <i>s</i>, and the spectral components |<i>N</i>(<i>k</i>)| of the noise signal <i>n</i>, where the equation includes the correlation based on the obtained correlation coefficient gamma >sn<. Preferably, the correlation equation is given by |<i>Y</i>(<i>k</i>)|?a> = |<i>S</i>(<i>k</i>)|<a> + |<i>N</i>(<i>k</i>)|<a> + gamma sn|<i>S</i>(<i>k</i>)||<i>N</i>(<i>k</i>)|.

IPC 1-7

G10L 21/02

IPC 8 full level

G10L 21/02 (2006.01); **G10L 21/0208** (2013.01); G10L 21/0216 (2013.01)

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