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## (54) Title of the invention : A SPEECH RECOGNITION SYSTEM AND A METHOD OF USING DYNAMIC BAYESIAN NETWORK MODELS

## (57) Abstract:

A computer implemented method for speech recognition comprising the steps of: registering (201) by means of an input device (102A) electrical signal representing speech and converting the signal to frequency or time frequency domain (202) analyzing the signal in an analysis module based on Dynamic Bayesian Network (205) configured to generate hypotheses of words (W) and their probabilities on the basis of observed signal features (OA OV) recognizing (209) a text corresponding to the electrical signal representing speech on the basis of certain word (W) hypotheses and their probabilities. The method is characterized by inputting to the analysis module (205) observed signal features (308 312) which are determined for the signal in frequency or time frequency domain (202) in at least two parallel signal processing lines (204a 204b 204c 204d 201a) for time segments distinct for each line and analyzing in the analysis module (205) relations between observed signal features (308 312) for at least two distinct time segments in the analysis module (205).

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