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(54) **Method and apparatus for reproducing speech signals**

(57) A method for reproducing speech signals at a controlled speed whereby rate conversion of the time axis may be facilitated, and can be realized by a simplified structure based on the encoded speech data without changing the phoneme. With the speech reproducing method, an encoding unit 2 discriminates whether an input speech signal is voiced or unvoiced. Based on the results of discrimination, the encoding unit 2 performs sinusoidal synthesis and encoding for a signal portion found to be voiced, while performing vector quantization by closed-loop search for an optimum vec-

tor for a portion found to be unvoiced using an analysis-by-synthesis method, in order to find encoded parameters. The decoding unit 4 compands the time axis of the encoded parameters obtained every pre-set frames at a period modification unit 3 for modifying the output period of the parameters for creating modified encoded parameters associated with different time points corresponding to the pre-set frames. A speech synthesis unit 6 synthesizes the voiced speech portion and the unvoiced speech portion based on the modified encoded parameters.

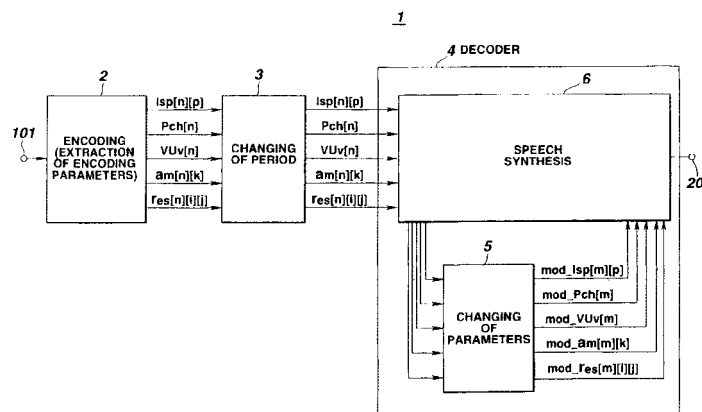


FIG.1



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EUROPEAN SEARCH REPORT

Application Number  
EP 01 12 1724

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The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 20 November 2001	Examiner Quélavoine, R
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons ..... & : member of the same patent family, corresponding document	

EPC FORM 1503 03/02 (P04001)

**ANNEX TO THE EUROPEAN SEARCH REPORT  
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For more details about this annex : see Official Journal of the European Patent Office, No. 12/82