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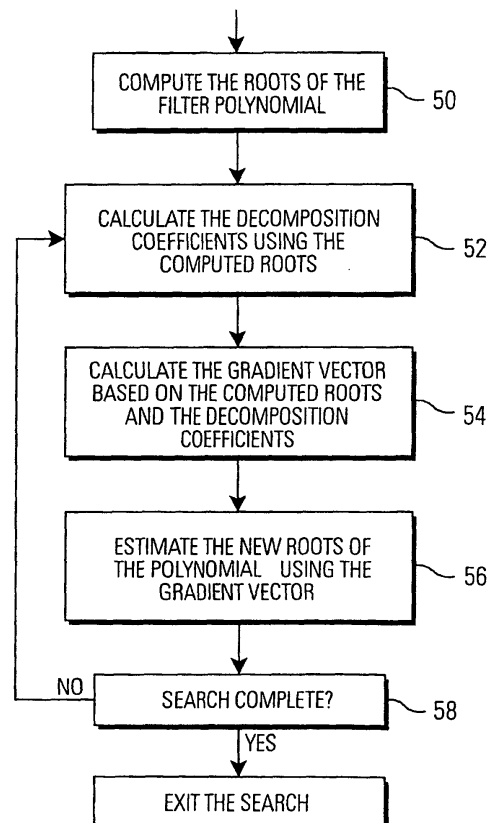
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(54) **Optimization of model parameters in speech coding**

(57)   A speech synthesis system is provided that optimizes a synthesis filter. Optimization is achieved by minimizing a synthesis error between the original speech sample and a synthesized speech sample. A gradient search algorithm in the root domain is also provided to aid minimization of the synthesis error.

FIG.3

EP 1 267 327 A3

European Patent
Office

PARTIAL EUROPEAN SEARCH REPORT

Application Number

which under Rule 45 of the European Patent Convention
shall be considered, for the purposes of subsequent
proceedings, as the European search report

EP 02 00 5056

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
X	YINING CHEN ET AL: "A new algorithm for parameter re-optimization in multi-pulse excitation LP synthesizer" 2000 IEEE ASIA-PACIFIC CONFERENCE ON CIRCUITS AND SYSTEMS, 4 December 2000 (2000-12-04), pages 560-563, XP010537673 * page 560, right-hand column - page 561, left-hand column *	1	G10L19/06
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A	FRATTI M ET AL: "AN APPROACH TO PARAMETER REOPTIMIZATION IN MULTIPULSE-BASE CODERS" IEEE TRANSACTIONS ON SPEECH AND AUDIO PROCESSING, IEEE INC. NEW YORK, US, vol. 1, no. 4, 1 October 1993 (1993-10-01), pages 463-465, XP000422860 ISSN: 1063-6676 * page 463 - page 464, left-hand column *	1,11	

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**TECHNICAL FIELDS
SEARCHED   (Int.Cl.7)**

G10L

INCOMPLETE SEARCH

The Search Division considers that the present application, or one or more of its claims, does/do
not comply with the EPC to such an extent that a meaningful search into the state of the art cannot
be carried out, or can only be carried out partially, for these claims.

Claims searched completely :

1-20

Claims searched incompletely :

Claims not searched :

21-34

Reason for the limitation of the search:

Mathematical method: see Article 52(2), Rule 45 EPC
and Guidelines B-III.3.12, B-VIII.1 and B-X.8(iii).

Place of search	Date of completion of the search	Examiner
THE HAGUE	30 March 2004	Ramos Sánchez, U

European Patent Office

PARTIAL EUROPEAN SEARCH REPORT

Application Number

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	DOCUMENTS CONSIDERED TO BE RELEVANT		CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	
A	RICHARDS J C ET AL: "A gradient-based variable step-size LMS algorithm" PROCEEDINGS OF SOUTHEASTCON. WILLIAMSBURG, APRIL 7 - 10, 1991, PROCEEDINGS OF THE SOUTHEAST CONFERENCE, NEW YORK, IEEE, US, vol. 1, 7 April 1991 (1991-04-07), pages 1083-1087, XP010045073 ISBN: 0-7803-0033-5 * the whole document *	1-20	
T	LASHKARI K ET AL: "Joint optimization of model and excitation in parametric speech coders" PROCEEDINGS OF IEEE INTERNATIONAL CONFERENCE ON ACOUSTICS, SPEECH AND SIGNAL PROCESSING (ICASSP'02), ORLANDO, FL, USA, vol. 1, 13 - 17 May 2002, pages 277-280, XP002275540 2002, Piscataway, NJ, USA, IEEE, USA ISBN: 0-7803-7402-9 * the whole document *	1-20	**TECHNICAL FIELDS SEARCHED (Int.Cl.7)**

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