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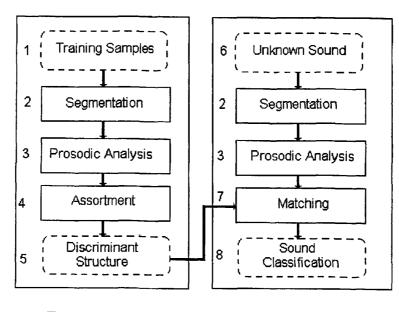
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(54) Title: SOUND CHARACTERISATION AND/OR IDENTIFICATION BASED ON PROSODIC LISTENING



Training Module

Identification Module

(57) Abstract: Vocal and vocal-like sounds can be characterised and/or identified by using an intelligent classifying method adapted to determine prosodic attributes of the sounds and base a classificatory scheme upon composite functions of these attributes, the composite functions defining a discrimination space. The sounds are segmented before prosodic analysis on a segment by segment basis. The prosodic analysis of the sounds involves pitch analysis, intensity analysis, formant analysis and timing analysis. This method can be implemented in systems including language-identification and singing-style-identification systems.



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A. CLASSIFICATION OF SUBJECT MATTER IPC 7 G10L15/00 G10L G10L17/00 G10H1/00 According to International Patent Classification (IPC) or to both national classification and IPC **B. FIELDS SEARCHED** Minimum documentation searched (classification system followed by classification symbols) IPC 7 G10L G10H Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Electronic data base consulted during the international search (name of data base and, where practical, search terms used) EPO-Internal, INSPEC, WPI Data, PAJ, IBM-TDB, COMPENDEX C. DOCUMENTS CONSIDERED TO BE RELEVANT Category ° Citation of document, with indication, where appropriate, of the relevant passages Relevant to claim No. Υ "Audio Signal Classification" 1 - 14GERHARD D: PHD DEPTH PAPER, SIMON FRASER UNIVERSITY, 23 February 2000 (2000-02-23), XP002170894 paragraph '1.2.1! paragraph '0005! paragraph '4.1.5! — paragraph '4.1.6! paragraph '1.4.4! — paragraph '1.4.5! paragraph '1.5.1! paragraph '06.3! Further documents are listed in the continuation of box C. Patent family members are listed in annex. Χ ° Special categories of cited documents: *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the *A* document defining the general state of the art which is not considered to be of particular relevance invention "E" earlier document but published on or after the international "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the ort. "O" document referring to an oral disclosure, use, exhibition or other means *P* document published prior to the international filing date but later than the priority date claimed "&" document member of the same patent family Date of mailing of the international search report Date of the actual completion of the international search 11/10/2002 25 September 2002 Authorized officer Name and mailing address of the ISA Ruropean Patient Office, P.B. 5818 Patentlaan 2 NL – 2280 HV Rijswijk Tel. (+31–70) 340–2040, Tx. 31 651 epo nl, Fax: (+31–70) 340–3016 De Vos, L

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