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(54) Speech analysis method.

(57) A sensory type pattern such as a speech or other sound pattern is analyzed to obtain the spectral distribution of the neural response thereto. A plurality of logarithmically related neural response intensity threshold signals is formed. The frequency spectrum of the sensory type pattern is divided into a plurality of overlapping spectral portions and the waveform of each prescribed spectral portion is partitioned into successive time segments. For the current time segment of each spectral portion waveform, the time intervals between crossings of the neural response intensity threshold level signals by the spectral portion waveform are detected and signals representative of the counts of inverse time intervals between the crossings of the plurality of levels are generated to form an inverse time interval histogram for the spectral portion. The inverse time interval histogram signals for the plurality of spectral portions are combined to produce a signal corresponding to the spectral distribution of the neural response to the sensory type pattern of the time segment.

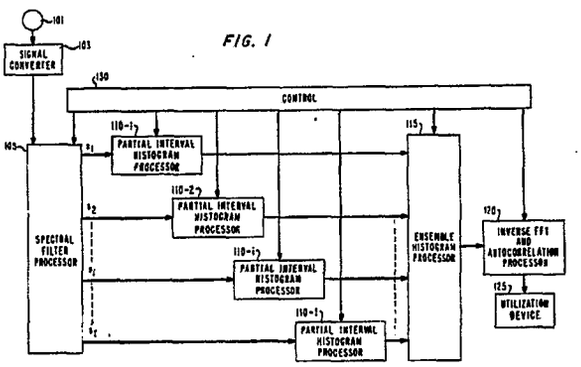

FIG. 1

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EUROPEAN SEARCH REPORT

Application Number

EP 88 30 2731

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.4)
X	COMPUTER SPEECH & LANGUAGE, vol. 1, no. 2, December 1986, pages 109-130, London, GB; O. GHITZA: "Auditory nerve representation as a front-end for speech recognition in a noisy environment" * Paragraph 2: "The ensemble interval histogram (EIH) representation" *	1-5,7,8	G 10 L 9/10

TECHNICAL FIELDS SEARCHED (Int. Cl.4)

G 10 L 9/10

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
THE HAGUE	15-03-1990	ARMSPACH J.F.A.M.

CATEGORY OF CITED DOCUMENTS

X : particularly relevant if taken alone
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T : theory or principle underlying the invention
E : earlier patent document, but published on, or after the filing date
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