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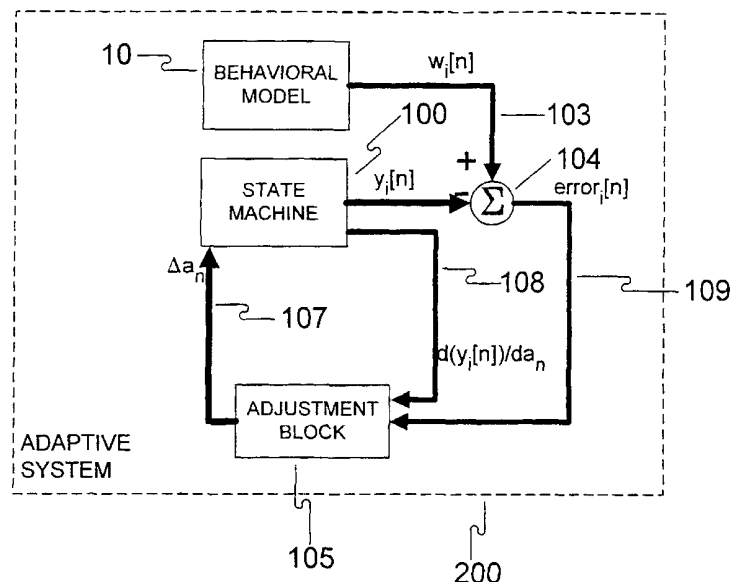
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(54) Title: METHOD AND APPARATUS FOR TRAINING A STATE MACHINE



(57) Abstract: A technique is disclosed for adjusting the parameters in the state equations governing the behavior of a system of state variables. By proper adjustment of the parameters in the state equations, the behavior of the state variables can be modified so that the system behaves as desired. The key to using this technique is the development of the concept of derivative variables. The derivative variables are variables processed by their own set of state equations derived from the original set of state equations. For each state variable in the original system and each parameter whose value is to be adjusted there exist a unique derivative variable. The value of the each derivative variable represents the instantaneous value of the derivative of a particular ordinary state variable with a particular parameter. Two matrix techniques are disclosed that can be used to increase the training rate.



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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER

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B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 G06F G06N G05B

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, WPI Data, PAJ, IBM-TDB, INSPEC

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5 974 434 A (ROSE RALPH E) 26 October 1999 (1999-10-26) column 1, line 55 -column 2, line 29 ---	1-10
A	US 5 517 432 A (CHANDRA ET AL) 14 May 1996 (1996-05-14) column 1, line 55 -column 2, line 36 ---	1
A	US 5 283 855 A (MOTOMURA SHUJI ET AL) 1 February 1994 (1994-02-01) column 4, line 55 -column 6, line 15 ---	1
A	US 5 349 541 A (ALEXANDRO JR ET AL) 20 September 1994 (1994-09-20) column 4, line 20 -column 5, line 15 --- -/--	1

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5 903 886 A (HEIMLICH MICHAEL C ET AL) 11 May 1999 (1999-05-11) abstract -----	1

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

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