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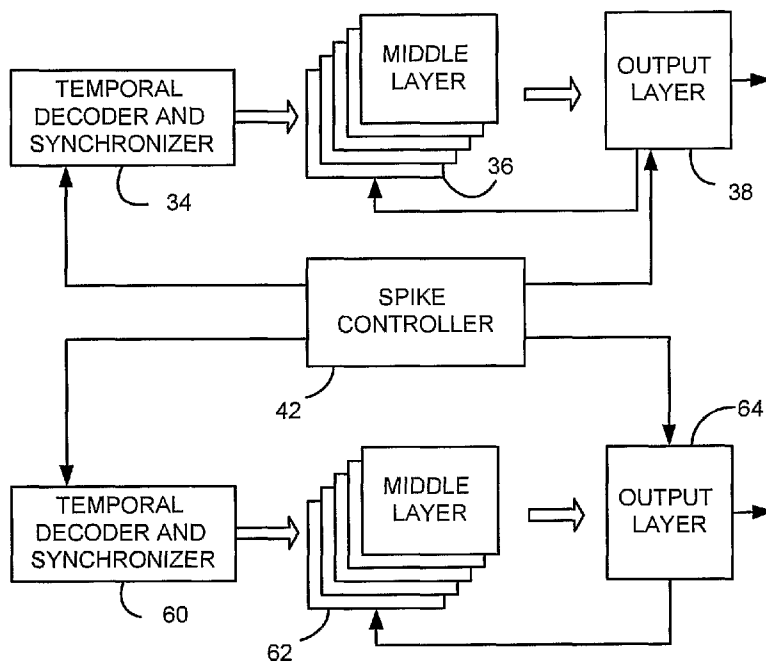
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(54) Title: VENTRICLE PACING DURING ATRIAL FIBRILLATION EPISODES



(57) Abstract: An adaptive cardiac resynchronization therapy system delivers biventricular stimulation to the heart with dynamic AV delay and VV interval. The stimulation is modified continuously in correlation with the hemodynamic performance of the heart. The system uses a spiking neural network comprising spike controller (42) that learns to associate the VA interval based on hemodynamic sensor temporal patterns. The associated VA interval replaces the sensed atrial event signal during atrial fibrillation episodes.

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# INTERNATIONAL SEARCH REPORT

International application No.

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**A. CLASSIFICATION OF SUBJECT MATTER**  
 IPC: A61N 1/00(2006.01)

USPC: 607/2

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)  
 U.S. : 607/2, 14, 17, 23; 600/485, 500

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

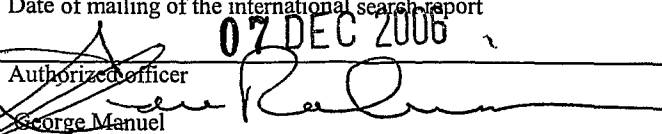
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)  
 EAST

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5,626,623 A(KIEVAL et al) 06 May 1997 (06.05.1997), see entire document.	9
A	US 6,371,922 B1 (BAUMANN et al) 16 April 2002 (16.04.2002), see entire document.	1-13
A	US 6,311,088 B1 (BETZOLD et al) 30 October 2001 (30.10.2001), see entire document.	1-13

Further documents are listed in the continuation of Box C.       See patent family annex.

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