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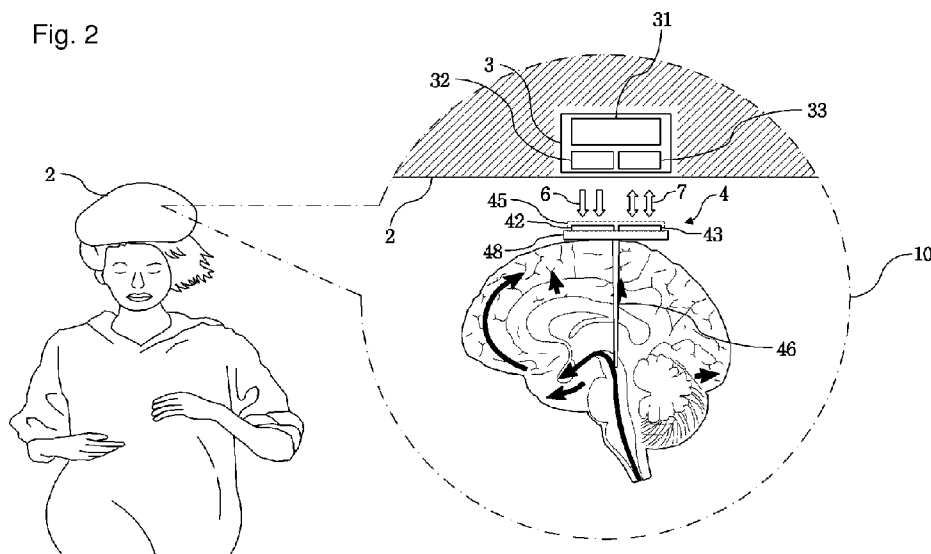
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(54) Title: NEURAL ELECTRONIC INTERFACE DEVICE FOR MOTOR AND SENSORY CONTROLS OF HUMAN BODY

Fig. 2



(57) Abstract: Provided is a neural electronic interface (NEI) device for motor and sensory controls of a human body, into which wireless technology, a smart micro-sensor, and a nano probe pin device (PPD) are integrated and which is implanted into a brain of a patient having abnormal motor and sensory functions to monitor activities of a cerebral nerve or stimulate a cerebral nerve. The NEI device includes: a deep brain monitoring and stimulation (DBMS) module which is implanted through a skull to contact the cerebral nerve of the patient; and a hat module which is installed at a hat put on a head of the patient, wirelessly supplies power to the DBMS module, and performs a wireless communication with the DBMS module to transmit a control signal to control the DBMS module according to nervous system data monitored and fed back from the DBMS module.

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## INTERNATIONAL SEARCH REPORT

International application No.  
**PCT/KR2008/002662****A. CLASSIFICATION OF SUBJECT MATTER****A61N 1/08(2006.01)i**

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 8: A61N

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

Korean Utility models and applications for Utility models since 1975

Japanese Utility models and applications for Utility models since 1975

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

eKIPASS(KIPO Internal) "neurostimulator", "implant", "control", "stimulation", "electrode", "communication", "wireless"

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
1 2-20	US 6427086 B1 (ROBERT E. FISCHHELL et al) 30 July 2002 See claim 1, column 13, line 35 - column 14, line 35, figures 1, 2, and 11	X A
1 2-20	US 2005-0283202 A1 (BARRY N. GELLMAN) 22 December 2005 See claims 1-19, paragraphs [0004] and [0005], figure 1	X A
1-20	US 7013177 B1 (TODD K. WHITEHURST et al) 14 March 2006 See claims 28-32, column 2, line 50 - column 3, line 44, figures 5, 8, and 9	A

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

\* Special categories of cited documents:

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"&amp;" document member of the same patent family

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Information on patent family members

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