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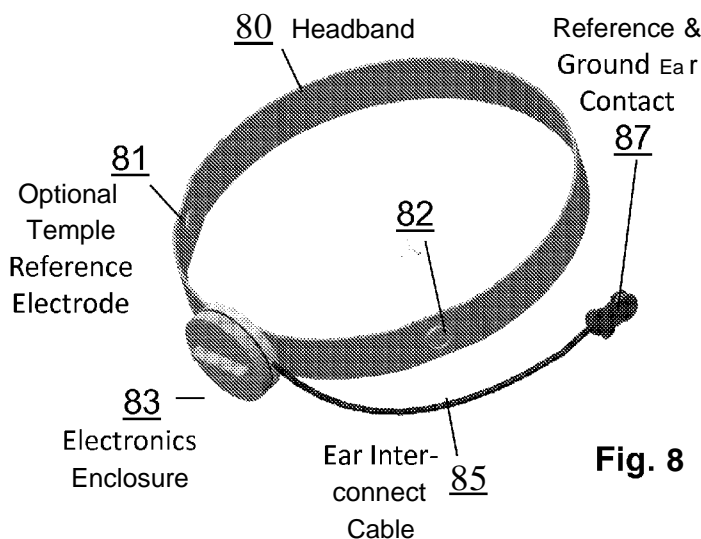
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(54) Title: SYSTEM AND SIGNATURES FOR THE MULTI-MODAL PHYSIOLOGICAL STIMULATION AND ASSESSMENT OF BRAIN HEALTH



(57) Abstract: A system and diagnostic signatures which are derived from the data collected in the system captures multiple streams of biological sensor data for assessing brain health and functionality of a user. The system includes a plurality of biological sensors adapted to collect biological sensor data from the user as well as the ability to stimulate the brain in a variety of sensory, cognitive, physical, and chemical challenges. Several of the biological sensors are accommodated in an electronics module mounted on the user's head.



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INTERNATIONAL SEARCH REPORT

international application No.

PCT/US 14/28061

A. CLASSIFICATION OF SUBJECT MATTER

IPC(8) - A61 B 8/00, A61 B 5/00, A61 B 5/05, G 10L 13/00, G 10L 21/00, G06F 15/00 (201 4.01)

USPC - 600/451 , 704/259

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)

ICP(8) - A61B 8/00, A61 B 5/00, A61 B 5/05, G10L 13/00, G10L 21/00, G06F 15/00 (2014.01)

USPC - 600/451 , 704/259

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

USPC - 600/356, 600/301 , 704/270, 704/200

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

ProQuest; Google Scholar; Google Patents; PatBase; Search terms - brainwave; eeg; vision or visual; speech; biometric; concussion; injury; sports; movement; sensor or sensors; assess or assessing or assessment; headset; module; microphone; saccade; eye; auditory; cognitive; position; accelerometer; balance; heart rate; gsc; galv

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 2012/0150545 A1 (SIMON) 14 June 2012 (14.06.2012); para [0007], [0008], [0183], [0177]-[0178], [0247], [0138], [0101]-[0103], [0067], [0138], [0101], [0123]	1-14
Y	US 201 10/0046473 A1 (PRADEEP ET AL.) 24 February 201 1 (24.02.201 1); para [0034], [0035], [0021], [0025], [0030], [0031], [0085]-[0087], [0033], [0060]	1-14
Y	US 201070286532 A1 (FARRINGDON et al.) 11 November 2010 (11.11.2010); abstract; para [0136], [0026], [0096]; FIG 21	4
Y	US 2003/0187490 A1 (GLINER) 2 October 2003 (02.10.2003); abstract; para [0066]; FIG 6G	7
Y	SCA Tool 'SCAT2' (2001) (accessed from the internet: 3 June 2014 from url: http://www.cces.ca/files/pdfs/SCAT2%5B1%5D.pdf); p 2, Box 5; p 3, box 8; entire document	11-14
A	Screen Shot confirming publication date of SCA Tool 'SCAT2' (screen image made 3 June 2014 from Google search; url: https://www.google.com/search?q=scat2&oq=scat2&aqs=chrome.0.69i59j69i6013j69i57j69i59.1875j0j4&sourceid=chrome&es_sm=122&ie=UTF-8#q=scat2)	11-14



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"O" document referring to an oral disclosure, use, exhibition of other means

"G" document member of the same patent family

"P" document published prior to the international filing date but later than the priority date claimed

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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.
Y	(BELL et al.) 'Systematic Review of the Balance Error Scoring System' Sports Health 3:287-295 (2011); p 292, Table 3; abstract	14
A	US 4,988,183 A (KASAHARA et al.) 29 January 1991 (29.01.1991) abstract	1