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(71) Applicant *(for all designated States except US)*: **HIDALGO LIMITED** [GB/GB]; Stable Block at The Grange, 20 Market Street, Swavesey, Cambridge CB4 5QG (GB).

(72) Inventors; and

(75) Inventors/Applicants *(for US only)*: **PISANI, Justin** [GB/GB]; Hidalgo Limited, Stable Block at The Grange, 20 Market Street, Swavesey, Cambridge CB4 5QG (GB). **HOWARD, Peter** [GB/GB]; Hidalgo Limited, Stable Block at The Grange, 20 Market Street, Swavesey, Cambridge CB4 5QG (GB). **CADE, Daniel** [GB/GB]; Hidalgo Limited, Stable Block at The Grange, 20 Market Street, Swavesey, Cambridge CB4 5QG (GB). **WARD, Stephen** [GB/GB]; Hidalgo Limited, Stable Block at The Grange, 20 Market Street, Swavesey, Cambridge CB4 5QG (GB).

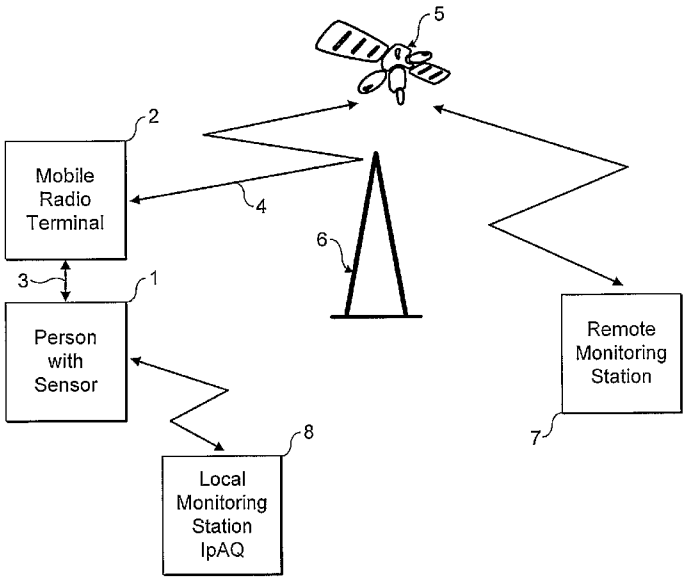
(74) Agents: **THOMSON, Neil, David** et al.; Boult Wade Tennant, Verulam Gardens, 70 Gray's Inn Road, London WC1X 8BT (GB).

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[Continued on next page]

(54) Title: APPARATUS AND SYSTEM FOR MONITORING



(57) Abstract: A monitoring device wearable by a person to be monitored, comprising: one or more sensing means for sensing cardio, respiratory, physiological and/or other information from the person; processing means for analysing the sensed information; memory means for storing the sensed and/or analysed information; and communication means for transmitting at least the analysed information. At least one waveform acquired from the sensed cardio, respiratory, physiological and/or other information is digitised in real time; analysis of the sensed and/or digitised information is performed in real-time and a welfare indication of the person computed in real-time; and the computed welfare indication of the person is transmitted by the communication means and/or stored in the memory means.

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RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declaration under Rule 4.17:

— *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))*

Published:

— *with international search report*

— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

(88) Date of publication of the international search report:
1 February 2007

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

INTERNATIONAL SEARCH REPORT

International application No
PCT/GB2006/001355

A. CLASSIFICATION OF SUBJECT MATTER
INV. A61B5/00

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)
A61B

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

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 01/28416 A (HEALTHETECH, INC) 26 April 2001 (2001-04-26) abstract page 6, line 20 - page 29, line 17 page 32, line 15 - page 39, line 13 page 43, line 19 - page 44, line 5	1-17, 27-35, 60, 62-66, 69-80, 83-122
Y	page 47, line 20 - page 48, line 12	18-22, 56-59, 61,81,82

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[X] Further documents are listed in the continuation of Box C.

[X] See patent family annex.

* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

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

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

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
2 August 2006	15. 12. 2006

Name and mailing address of the ISA/	Authorized officer
European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Beck, Ewa

Form PCT/ISA/210 (second sheet) (April 2005)

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2002/019586 A1 (TELLER ERIC ET AL) 14 February 2002 (2002-02-14) abstract paragraph [0005] - paragraph [0020] paragraph [0043] - paragraph [0062] paragraph [0073] - paragraph [0082] -----	1,23-25, 36,70, 123,128, 130-132
X	EP 1 226 784 A (MATSUSHITA ELECTRIC INDUSTRIAL CO., LTD) 31 July 2002 (2002-07-31) paragraph [0151] - paragraph [0152] -----	1,18
X	WO 03/015005 A (BODYMEDIA, INC) 20 February 2003 (2003-02-20) abstract page 39, line 21 - page 44, line 24 -----	1,23-25, 36,70, 123,128, 130-132
Y	EP 1 352 606 A (HEEMANN, ULRIKE) 15 October 2003 (2003-10-15) paragraph [0007] - paragraph [0008] -----	18-22,61
Y	WO 01/52718 A (HEALTHETECH, INC) 26 July 2001 (2001-07-26) page 14, line 21 - page 15, line 18 page 22, line 8 - line 15 -----	56-59, 81,82

INTERNATIONAL SEARCH REPORT

International application No.
PCT/GB2006/001355

Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. ☒ Claims Nos.: 133,134
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
see FURTHER INFORMATION sheet PCT/ISA/210

3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.

2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.

3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:

4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:
1-25, 27-36, 56-66, 69-123, 128, 130-132

Remark on Protest

☐ The additional search fees were accompanied by the applicant's protest.

☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-25,27-36,56-66,69-123,128,130-132

   A monitoring device wherein the welfare indication is determined by comparison of newly sensed information with thresholds modifiable for a type of range of activities or environments.

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2. claims: 26,67,68

   A monitoring device wherein a sensitivity of detection is modifiable in response to the activity status, level of ambulation and/or body position and/or contextual information experienced by a person.

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3. claims: 37-41,129

   A monitoring device, wherein the welfare indication comprises an additional state of absence of vital signs.

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4. claims: 42-55,124-127

   A monitoring device, wherein a secondary welfare indication is provided by analysis of thermal and/or neurological information and wherein the cognitive state of a person is manually determinable by the monitoring station requesting the wearer to carry out an action.

Continuation of Box II.2

Claims Nos.: 133,134

Rule 6.2(a) PCT - claims rely on references to the drawings.

The applicant's attention is drawn to the fact that claims relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure. If the application proceeds into the regional phase before the EPO, the applicant is reminded that a search may be carried out during examination before the EPO (see EPO Guideline C-VI, 8.5), should the problems which led to the Article 17(2) declaration be overcome.

INTERNATIONAL SEARCH REPORT

International application No
PCT/GB2006/001355

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		EP 1414340 A2	06-05-2004
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		JP 2004509652 T	02-04-2004