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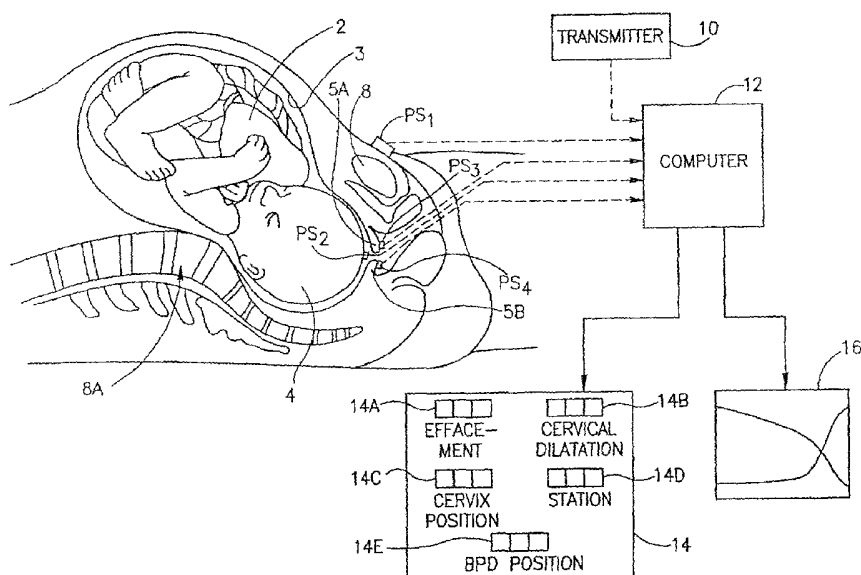
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- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
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- Published:
— with international search report

[Continued on next page]

(54) Title: METHOD AND APPARATUS FOR MONITORING LABOR PARAMETERS



(57) Abstract: A method for early detection of a pregnancy complication, including touching a position sensor to a point on a fetal presenting part of a fetus in a mother, and capturing a position of the position sensor, touching the position sensor to a set of points on the mother and capturing the position of the position sensor at each point, and detecting a pregnancy complication sign based upon a predefined criterion for said pregnancy complication. Methods and apparatus are provided for identifying the BPD pattern in an ultrasound image, for determining characteristics of body parts outside of a pelvic region, for BPD reconstruction and for an adapter for a position sensor are also described among other embodiments.



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

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.

(88) Date of publication of the international search report:

14 April 2005

INTERNATIONAL SEARCH REPORT

Inter: I Application No
PCT/IL2004/000733

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 G06T7/60 A61B5/107 A61B8/08

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 7 G06T 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, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 605 155 A (KIM YONGMIN ET AL) 25 February 1997 (1997-02-25) column 2, line 21 - column 9, line 67; claims 1-3; figures 1-9 -----	3,4
X	US 6 375 616 B1 (BERMAN MICHAEL ET AL) 23 April 2002 (2002-04-23)	3,4
Y	column 11, line 14 - line 62; figures 1-12 -----	5-8
Y	US 5 185 809 A (KENNEDY DAVID N ET AL) 9 February 1993 (1993-02-09) column 1, line 33 - column 4, line 37; figures 1-9 -----	5-8
X	US 5 588 435 A (GUECK WAYNE ET AL) 31 December 1996 (1996-12-31) column 2, line 20 - column 7, line 62; figures 1-10 ----- -/--	3,4

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in 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)
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- "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

19 November 2004

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INTERNATIONAL SEARCH REPORT

Interr: Application No
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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.
X	US 5 838 592 A (SPRATT RAY STEVEN) 17 November 1998 (1998-11-17) column 2, line 23 - column 5, line 48; figures 1-7	3,4
A	----- US 2003/114779 A1 (PALTIELI YOAV) 19 June 2003 (2003-06-19) paragraph [0011] - paragraph [0074]; figures 1-11 -----	3-8

INTERNATIONAL SEARCH REPORT

In: **ST/IL2004/000733**
nal application No.

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.: **1, 2, 9, 10, 12-14**
because they relate to subject matter not required to be searched by this Authority, namely:
Rule 39.1(iv) PCT - Method for treatment of the human or animal body by surgery
2. ☐ Claims Nos.:
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:
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.:
3-8

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: 3-8

Method for identifying fetal head contour in an ultrasound image

2. claim: 11

Method for mapping body parts outside of a pelvic region by external sensors

3. claims: 15-27

Constructional details of an apparatus comprising a position sensor with a sleeve

INTERNATIONAL SEARCH REPORT

mation on patent family members

Intern Application No
PCT/IL2004/000733

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 5605155	A	25-02-1997	US 5795296 A 18-08-1998
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