

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

PCT

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY
(PCT Rule 43bis.1)**

To:

see form PCT/ISA/220

Date of mailing
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference
see form PCT/ISA/220

FOR FURTHER ACTION
See paragraph 2 below

International application No.
PCT/EP2017/055417

International filing date (day/month/year)
08.03.2017

Priority date (day/month/year)

International Patent Classification (IPC) or both national classification and IPC
INV. A63B71/06 A63C19/06

Applicant
TELEFONAKTIEBOLAGET LM ERICSSON (PUBL)

1. This opinion contains indications relating to the following items:

- Box No. I Basis of the opinion
- Box No. II Priority
- Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- Box No. IV Lack of unity of invention
- Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step and industrial applicability; citations and explanations supporting such statement
- Box No. VI Certain documents cited
- Box No. VII Certain defects in the international application
- Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

Name and mailing address of the ISA:



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Date of completion of this opinion

see form PCT/ISA/210

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Box No. I Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of:
 - the international application in the language in which it was filed.
 - a translation of the international application into , which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1 (b)).
2. This opinion has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43bis.1(a))
3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, this opinion has been established on the basis of a sequence listing:
 - a. forming part of the international application as filed:
 - in the form of an Annex C/ST.25 text file.
 - on paper or in the form of an image file.
 - b. furnished together with the international application under PCT Rule 13ter.1(a) for the purposes of international search only in the form of an Annex C/ST.25 text file.
 - c. furnished subsequent to the international filing date for the purposes of international search only:
 - in the form of an Annex C/ST.25 text file (Rule 13ter.1(a)).
 - on paper or in the form of an image file (Rule 13ter.1(b) and Administrative Instructions, Section 713).
4. In addition, in the case that more than one version or copy of a sequence listing has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that forming part of the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
5. Additional comments:

Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	<u>12-17</u>
	No: Claims	<u>1-11, 18-22</u>
Inventive step (IS)	Yes: Claims	
	No: Claims	<u>1-22</u>
Industrial applicability (IA)	Yes: Claims	<u>1-22</u>
	No: Claims	

2. Citations and explanations

see separate sheet

Box No. VII Certain defects in the international application

The following defects in the form or contents of the international application have been noted:

see separate sheet

Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

see separate sheet

1 **Re Item V**

Reasoned statement with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1.1 Reference is made to the following documents:

- D1 US 5 908 361 A (FISHER JOSEPH R [US] ET AL) 1 June 1999 (1999-06-01)
- D2 FR 2 501 513 A1 (CAZORLA JEAN CLAUDE [FR]) 17 September 1982 (1982-09-17)
- D3 AU 66553 86 A (KNAGGS D) 18 June 1987 (1987-06-18)
- D4 DE 26 28 908 A1 (HEITLINGER GEB SOHL INGEBORG M) 5 January 1978 (1978-01-05)
- D5 US 5 489 886 A (WEXLER GIL [IL] ET AL) 6 February 1996 (1996-02-06)

1.2 The present application does not meet the criteria of Article 33(2) PCT, because the subject-matter of claim 1 is not new.

D1 discloses (column 6, line 56 - column 8, line 63; figures 3,4,7,9,11; column 15, line 11 - column 16, line 4; column 19, lines 5-23):

An audio-based line fault detection system for a sports game, the audio-based line fault detection system comprising:

one or more audio sensors 4,6,15,70,72,74,76,78,80,82,84 for sensing an audio signal generated by a sports gaming device 140 (see figure 9) bouncing off a sports field, wherein the sports field comprises surface modifications (col.10, line 62-col.11,l.33) applied to at least one of a line (*in D1 the lines are made of tape which have by nature a different surface than the rest of the clay or grass field for instance thereby constituting a surface modification*) and an area adjacent to the line on the sports field such that the generated audio signal is dependent on whether or not the sports gaming device bounces off the sports field where the surface modifications are applied; and wherein the audio-based line fault detection system is configured to: generate a sound profile from the sensed audio signal (see col.15, lines 28-36); and

identify a bounce type based on the generated sound profile, wherein the bounce type is defined by whether or not the sports gaming device has bounced off the sports field where the surface modifications are applied (see column 13, lines 5-62; col.15, line 38 - column 16, line 4).

- 1.3 The present application does not meet the criteria of Article 33(2) PCT, because the subject-matter of claim 18 is not new.

D1 discloses:

A sports field (see figure 3) comprising surface modifications (col.10, line 62- col.11, l.33: *lines are made of tape which have by nature a different surface than the rest of the clay or grass field for instance*) applied to at least one of a line and an area adjacent to the line on the sports field such that an audio signal generated by a sports gaming device bouncing off the sports field is dependent on whether or not the sports gaming device bounces off the sports field where the surface modifications are applied.

- 1.4 The subject-matter of claims 1 and 18 is also known from D2 (see the whole document) while the subject-matter of claim 18 is in addition known from each of documents D3 and D4 (see corresponding passages of the search report).
- 1.5 The same objection applies mutatis mutandis to the subject-matter of claims 19 and 20 which are not new over document D1 (Article 33(2) PCT).
- 1.6 The present application does not meet the criteria of Article 33(2) PCT, because the subject-matter of claim 21 is not new.

D1 discloses:

A computer program product 123 (see figure 4; col.15, lines 11-61) comprising program code portions for performing said method when the computer program product is executed on one or more computing devices.

- 1.7 Dependent claims 2-17, 22 do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of novelty and/or inventive step as said features are at least known from any of documents D1 or D2 (see corresponding passages of the search report). The features of dependent claims 12 to 15 do not involve an inventive step when combined with the subject-matter of claim 1 as such a video monitoring is known in combination from document D5 (see column 7, lines 5-50; figures 4-6).

2 **Re Item VII**

Certain defects in the international application

Contrary to the requirements of Rule 5.1(a)(ii) PCT, the relevant background art disclosed in D1 and D2 is not mentioned in the description, nor are these documents identified therein.

3 **Re Item VIII**

Certain observations on the international application

The application does not meet the requirements of Article 6 PCT, because claims 1, 4, 6 and 18 are not clear. Indeed, some of the features in said apparatus claims relate to a method of using the apparatus (see "configured to...") rather than clearly defining the apparatus in terms of its technical features. The intended limitations are therefore not clear from this claim, contrary to the requirements of Article 6 PCT.