



(51) International Patent Classification:
H04W 72/02 (2009.01) H04B 17/00 (2006.01)
H04W 74/02 (2009.01)

(21) International Application Number:
PCT/IB2009/051036

(22) International Filing Date:
12 March 2009 (12.03.2009)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
08152863.0 18 March 2008 (18.03.2008) EP

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

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declarations 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 (Art. 21(3))

[Continued on next page]

(54) Title: DISTRIBUTED SPECTRUM SENSING

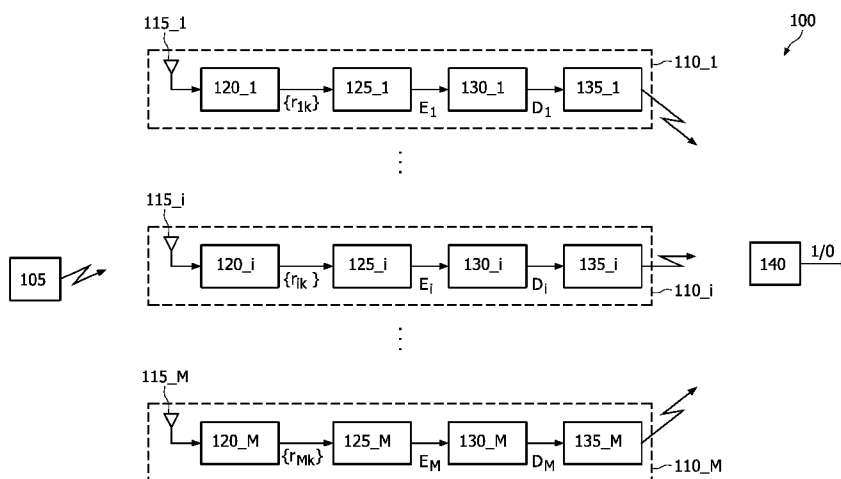


FIG. 1

(57) Abstract: In summary, the invention relates to a device, a system, a method and a computer program for spectrum sensing. A detection procedure for detecting a signal of interest or an event by using a plurality of sensing devices capable of communicating with a central unit is proposed. The sensing devices can compute soft detection metrics and communicate this information to a central unit, where the information may be used to make a final detection decision using a certain specified rule. The signaling overhead of the proposed approach can be of the same order as that of a hard signaling approach. However, the proposed approach may achieve a better detection performance.





— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))*

(88) Date of publication of the international search report:
26 November 2009

INTERNATIONAL SEARCH REPORT

International application No
PCT/IB2009/051036

A. CLASSIFICATION OF SUBJECT MATTER
 INV. H04W72/02 H04W74/02 H04B17/00

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)
 H04B

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, INSPEC

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2006/087423 A1 (CORONEL PEDRO E [CH] ET AL) 27 April 2006 (2006-04-27) page 2, paragraph 27 - page 3, paragraph 28 page 4, paragraph 33 - paragraph 35 page 5, paragraph 38 - page 7, paragraph 67 figures 3,4,6	1-15
A	BIN ZHEN ET AL: "IEEE Body Area Networks for Medical Applications" WIRELESS COMMUNICATION SYSTEMS, 2007. ISWCS 2007. 4TH INTERNATIONAL SYMPOSIUM ON, IEEE, PISCATAWAY, NJ, USA, 1 October 2007 (2007-10-01), pages 327-331, XP031166784 ISBN: 978-1-4244-0978-5 page 329 - page 330	1-15

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See patent family annex.

- * Special categories of cited documents :
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Date of the actual completion of the international search 25 September 2009	Date of mailing of the international search report 05/10/2009
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Name and mailing address of the ISA/ European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Fax: (+31-70) 340-3016	Authorized officer Carrasco Comes, N
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INTERNATIONAL SEARCH REPORT

International application No
PCT/IB2009/051036

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>GHASEMI A; SOUSA E S: IEEE VEHICULAR TECHNOLOGY CONFERENCE, [Online] 1 January 2006 (2006-01-01), pages 1278-1283, XP002547544 Montreal ISSN: 1550-2252 ISBN: 978-1-4244-0063-8 Retrieved from the Internet: URL:10.1109/VTCF.2006.268> [retrieved on 2009-09-22] cited in the application the whole document -----</p>	1-15

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No
PCT/IB2009/051036

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2006087423	A1	27-04-2006	
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