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Declarations under Rule 4.17:

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

[Continued on next page]

(54) Title: SYSTEM OF INTELLIGENT SENSORS IN AN ELECTRICAL PANELBOARD

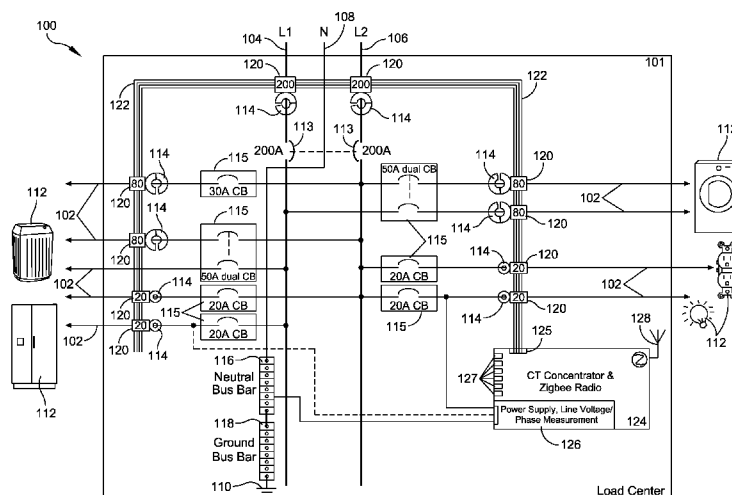


FIG. 1

(57) **Abstract:** According to one aspect, embodiments of the invention provide a system for monitoring a plurality of circuit branches, the system comprising a plurality of current sensors, each configured to be coupled to at least one of the plurality of circuit branches and to produce a signal having a level related to a current level of the one of the plurality of circuit branches, a communications bus, a plurality of sensor circuits, wherein each one of the plurality of sensor circuits is configured to convert the signal from the associated one of the plurality of current sensors to a digital measurement signal and provide the digital measurement signal to the communication bus, and a controller configured to receive the digital measurement signal from each sensor circuit over the communication bus and transmit data related to the digital measurement signal from each sensor circuit to an external client.



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- *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))* (88) **Date of publication of the international search report:**
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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER
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ADD.

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)
F24F G01D G01R

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 practicable, 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	US 2009/292403 A1 (HOWELL DONALD W [US] ET AL) 26 November 2009 (2009-11-26)	1
Y	paragraphs [0059], [0102], [0121], [0124], [0134], [0139]; figures 1-12	2-20
Y	EP 1 102 073 A1 (CORCORAN ALEXANDER PATRICK [IE]) 23 May 2001 (2001-05-23) paragraphs [0047], [0061]; figures 1a, 3, 4, 7	2-20
Y	US 2011/046792 A1 (IMES KEVIN R [US] ET AL) 24 February 2011 (2011-02-24) paragraphs [0105], [0119], [0138], [0171]; figures 4, 6, 14 - 16	2-20



Further documents are listed in the continuation of Box C.



See patent family annex.

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INTERNATIONAL SEARCH REPORT

Information on patent family members

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