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[Continued on next page]

(54) Title: METHODS, SYSTEMS, AND COMPUTER PROGRAM PRODUCTS FOR DETERMINING A PROPERTY OF CONSTRUCTION MATERIAL

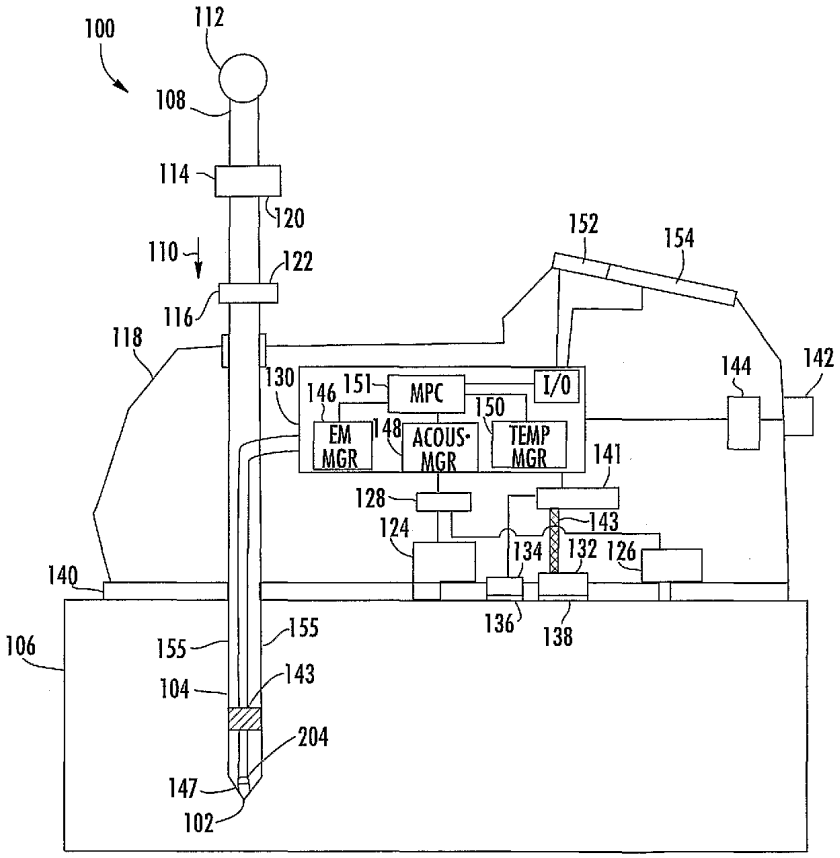

FIG. 1

(57) Abstract: Methods, systems, and computer program products for determining a property of construction material. According to one aspect, a material property gauge operable to determine a property of construction material is disclosed. The gauge may include an electromagnetic sensor operable to measure a response of construction material to an electromagnetic field. Further, the electromagnetic sensor may be operable to produce a signal representing the measured response by the construction material to the electromagnetic field. An acoustic detector may be operable to detect a response of the construction material to the acoustical energy. Further, the acoustic detector may be operable to produce a signal representing the detected response by the construction material to the acoustical energy. A material property calculation function may be configured to calculate a property value associated with the construction material based upon the signals produced by the electromagnetic sensor and the acoustic detector.

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A. CLASSIFICATION OF SUBJECT MATTER
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USPC: 73/32A;324/323;367/14
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)
U.S. : 73/32A, 620-623, 592, 598, 866.5, 61.71, 61.75; 324/323, 334, 344-350; 367/14

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)
Please See Continuation Sheet

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X --- Y	US 4,904,942 A (THOMPSON) 27 February 1990 (27.02.1990), column 4, line 59 to column 7, line 68.	1-16, 30-36, 43-49 --- 17-29, 37-42, 50-55
Y	US 6,411,087 A (FAN et al.) 25 June 2002 (25.06.2002), column 1, line 48 to column 2, line 4.	17-29, 37-42, 50-55
A	US 6,397,661 A (GRIMES et al.) 04 June 2002 (04.06.2002), Figures 1A-16, Abstract.	17-29, 37-42, 50-55
A	US 6,393,921 A (GRIMES et al.) 28 May 2002 (28.05.2002), Figures 1-10, Abstract.	17-29, 37-42, 50-55
A	US 5,333,502 A (CLARK, JR. et al.) 02 August 1994 (02.08.1994), Figures 1-2, Abstract.	1-16, 30-36, 43-49

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Date of the actual completion of the international search	Date of mailing of the international search report
13 May 2008 (13.05.2008)	29 MAY 2008
Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (571) 273-3201	Authorized officer Hezron E. Williams Telephone No. (703) 305-4900

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Continuation of B. FIELDS SEARCHED Item 3:
EAST Database
Search terms: electromagnetic sensor, temperature sensor, acoustic sensor, temperature, density, moisture, modulus