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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
14/011,681	08/27/2013	Rohit Mittal	NJ-9315	8729
24956	7590	12/08/2014	EXAMINER	
MATTINGLY & MALUR, PC 1800 DIAGONAL ROAD SUITE 370 ALEXANDRIA, VA 22314			LAVERT, NICOLE F	
			ART UNIT	PAPER NUMBER
			3762	
			NOTIFICATION DATE	DELIVERY MODE
			12/08/2014	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ptomail@mmlplaw.com

Office Action Summary

Application No.
14/011,681

Applicant(s)
MITTAL, ROHIT

Examiner
NICOLE F. LAVERT

Art Unit
3762

AIA (First Inventor to File) Status
Yes

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTHS FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 10/9/14.
 A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.
- 2a) This action is **FINAL**.
- 2b) This action is non-final.
- 3) An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.
- 4) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims*

- 5) Claim(s) 1-20 is/are pending in the application.
5a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 6) Claim(s) _____ is/are allowed.
- 7) Claim(s) 1-20 is/are rejected.
- 8) Claim(s) _____ is/are objected to.
- 9) Claim(s) _____ are subject to restriction and/or election requirement.

* If any claims have been determined allowable, you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see http://www.uspto.gov/patents/init_events/pph/index.jsp or send an inquiry to PPHfeedback@uspto.gov.

Application Papers

- 10) The specification is objected to by the Examiner.
- 11) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

Certified copies:

- a) All b) Some** c) None of the:
 - 1. Certified copies of the priority documents have been received.
 - 2. Certified copies of the priority documents have been received in Application No. _____.
 - 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

** See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Information Disclosure Statement(s) (PTO/SB/08a and/or PTO/SB/08b)
Paper No(s)/Mail Date _____.
- 3) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 4) Other: _____.

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1. The present application, filed on or after March 16, 2013, is being examined under the first inventor to file provisions of the AIA.

DETAILED ACTION

Claim Rejections - 35 USC § 103

2. In the event the determination of the status of the application as subject to AIA 35 U.S.C. 102 and 103 (or as subject to pre-AIA 35 U.S.C. 102 and 103) is incorrect, any correction of the statutory basis for the rejection will not be considered a new ground of rejection if the prior art relied upon, and the rationale supporting the rejection, would be the same under either status.

3. The following is a quotation of 35 U.S.C. 103 which forms the basis for all obviousness rejections set forth in this Office action:

A patent for a claimed invention may not be obtained, notwithstanding that the claimed invention is not identically disclosed as set forth in section 102 of this title, if the differences between the claimed invention and the prior art are such that the claimed invention as a whole would have been obvious before the effective filing date of the claimed invention to a person having ordinary skill in the art to which the claimed invention pertains. Patentability shall not be negated by the manner in which the invention was made.

1. **Claims 1-20** are rejected under 35 U.S.C. 103 as being unpatentable over Mahajan et al. (US 2011/0082377) in view of Muhlenberg et al. (US 5,836,982).

In regards to claims 1-6, Mahajan et al. disclose a sensor block for collecting data from a human patient, comprising (e.g., via the disclosed system 200): an amplifier; a sensing analog-to-digital conversion block coupled to the amplifier (e.g., via the disclosed physiological data monitor 210 that further includes signal sampling circuitry that presents digitized values of an electrical signal produced by disclosed sensors); a post processor (e.g., element 225) coupled to the compressed sensing analog-to-digital conversion block; a transmitter coupled to the post

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processor; and an antenna (e.g., via the disclosed communication module 250) {e.g., [0056]-[0062] & (Fig 2)}.

In regards to claims 7-12, Mahajan et al. discloses a body area network for collecting and processing data from a human patient, comprising: a sensor block comprising (e.g., via the disclosed system 200): an amplifier; a sensing analog-to-digital conversion block coupled to the amplifier (e.g., via the disclosed physiological data monitor 210 that further includes signal sampling circuitry that presents digitized values of an electrical signal produced by disclosed sensors); a post processor (e.g., element 225) coupled to the compressed sensing analog-to-digital conversion block; a transmitter coupled to the post processor; and an antenna; a smartphone coupled to the sensor block over a wireless network; and a cloud computing device coupled to the smartphone over a wireless network {e.g., [0056]-[0062], [0104] & (Figs 2 & 11)}.

In regards to claims 13-20, Mahajan et al. discloses a method of collecting and processing data from a human patient, comprising: obtaining data from the human patient using electrodes (e.g., via the disclosed sensors 110n); generating data using a sensing analog-to-digital conversion block operating on the data from the human patient; processing the compressed data using a post processor to generate processed data (e.g., via the disclosed physiological data monitor 210 that further includes signal sampling circuitry that presents digitized values of an electrical signal produced by disclosed sensors); ; transmitting the processed data to a smartphone over a wireless network; and transmitting the processed data from the smartphone to a cloud computing device over wireless network (e.g., via the disclosed communication module 250) {e.g., [0056]-[0070], [0104] & (Figs 2-3 & 11)}.

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Mahajan et al. discloses a sensor block, a body area network and a method comprising a means of sensing and processing analog-to-digital data except wherein said block, network and method further comprise a compressed sensing analog-to-digital conversion block. Muhlenberg teaches that it is known to use a system and a method for compressing and sampling analog physiologic signals such as cardiac signals, wherein said data is picked up in analog form and is further processed, compressed and in order to provide digitized, physiological data (e.g., col 4, ln 13-32). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the block, network, and method as taught by Mahajan et al. with the processing means of compressing the data in order to provide A/D conversion as taught by Muhlenberg, since such a modification would provide the block, network and method further comprising a compressed sensing analog-to-digital conversion block for providing the predictable results pertaining to utilizing signal processing tools that will achieve efficient data compression with little data loss, and with minimum data processing (e.g., Muhlenberg, col 1, ln 7-11).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to NICOLE F. LAVERT whose telephone number is (571)270-5040. The examiner can normally be reached on M-F 7:30-5:00p.m. (alt. Fridays).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Koharski can be reached on 571-272-7230. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/NICOLE F. LAVERT/
Primary Examiner, Art Unit 3762

Notice of References Cited	Application/Control No. 14/011,681	Applicant(s)/Patent Under Reexamination MITTAL, ROHIT	
	Examiner NICOLE F. LAVERT	Art Unit 3762	Page 1 of 1

U.S. PATENT DOCUMENTS

*	Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
*	A US-5,836,982 A	11-1998	Muhlenberg et al.	607/9
*	B US-2002/0026122 A1	02-2002	Lee et al.	600/523
C	US-			
D	US-			
E	US-			
F	US-			
G	US-			
H	US-			
I	US-			
J	US-			
K	US-			
L	US-			
M	US-			


FOREIGN PATENT DOCUMENTS

*	Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
N					
O					
P					
Q					
R					
S					
T					

NON-PATENT DOCUMENTS

*	Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
*	Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)				
U					
V					
W					
X					

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

Search Notes 	Application/Control No. 14011681	Applicant(s)/Patent Under Reexamination MITTAL, ROHIT
	Examiner NICOLE F LAVERT	Art Unit 3762

CPC- SEARCHED		
Symbol	Date	Examiner

CPC COMBINATION SETS - SEARCHED		
Symbol	Date	Examiner

US CLASSIFICATION SEARCHED			
Class	Subclass	Date	Examiner
600	508-509	6/30/2014	NFL
607	60		
ABOVE	UPDATED	12/3/2014	NFL

SEARCH NOTES		
Search Notes	Date	Examiner
Inventor Search (EDAN)	6/30/2014	NFL
EAST Search (see attachment)		

INTERFERENCE SEARCH			
US Class/ CPC Symbol	US Subclass / CPC Group	Date	Examiner

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EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S1	2213	600/508.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2014/06/30 12:03
S2	3977	600/509.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2014/06/30 12:05
S3	76594	(sensor or sensing) same medical	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2014/06/30 12:08
S4	22360	S3 and (signal same processing)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2014/06/30 12:08
S5	1091	S4 and ((wireless same network) same (user same interface))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2014/06/30 12:09
S6	488	S5 and electrodes	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2014/06/30 12:09
S7	415	S6 and (smartphone or phone or cellular)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2014/06/30 12:09
S8	211	S7 and @py<="2011"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2014/06/30 12:10
S9	2383	607/60.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2014/06/30 12:10
S10	6315	compressed same (("A-D" or analog) same (convert or conversion))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2014/12/01 12:41
S11	39	S10 and ((sensing or sense) same (physiological or ECG))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2014/12/01 12:42
S12	2461	600/508.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2014/12/01 12:43
S13	0	600/5080.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2014/12/03 11:22
S14	2462	600/508.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2014/12/03 11:22
S15	4413	600/509.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2014/12/03 11:22
S16	2624	607/60.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO;	OR	OFF	2014/12/03 11:22

DERWENT; IBM_TDB

EAST Search History (Interference)

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