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(71) Applicant (for all designated States except US): **CONVERGENT ENGINEERING, INC.** [US/US]; 4817 S.W. 34th Street, St., 4, Gainesville, FL 32608 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **BLANCH, Paul, B.** [US/US]; 15214 N.W. 94th Avenue, Alachua, FL 32615 (US). **MEKA, Vikas** [US/US]; 5400 N.W. 39th Avenue,

#AA255, Gainesville, FL 32606 (US). **EULIANO, Neil, R.** [US/US]; 4817 SW 34th Street, Suite 4, Gainesville, FL 32628 (US).

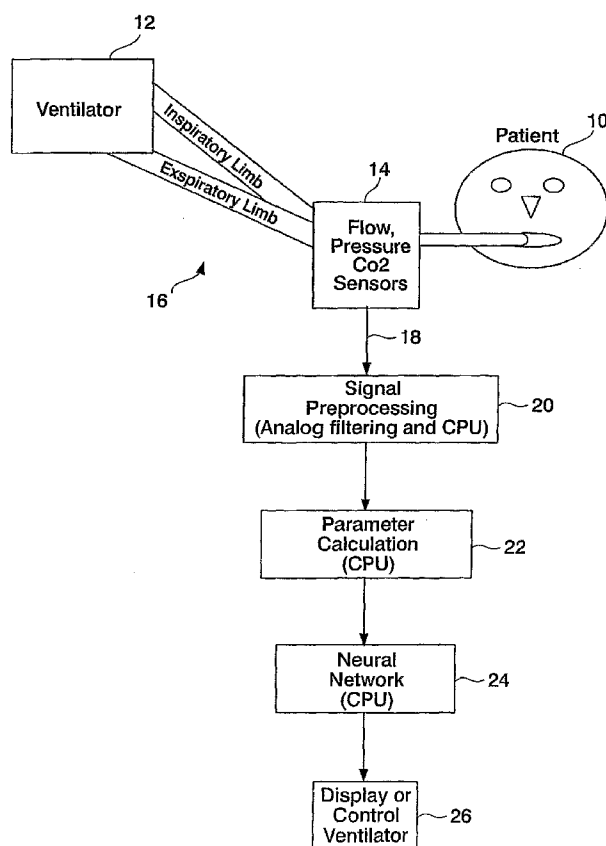
(74) Agents: **McLEOD, Christine, Q.** et al.; Beusse Brownlee Wolter Mora & Maire, Suite 2500, 390 North Orange Avenue, Orlando, FL 32801 (US).

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[Continued on next page]

(54) Title: METHOD AND APPARATUS FOR NON-INVASIVE PREDICTION OF INTRINSIC POSITIVE END-EXPIRATORY PRESSURE (PEEPi) IN PATIENTS RECEIVING VENTILATOR SUPPORT



(57) Abstract: The present invention describes a method and apparatus for non-invasive prediction of the "intrinsic positive end-expiratory pressure" (PEEPi) which is secondary to a trapping of gas, over and above that which is normal in the lungs; the presence of PEEPi imposes an additional workload upon the spontaneously breathing patient. Several indicators or markers are presented to detect and quantify PEEP; non-invasively. The markers may include an expiratory air flow versus expiratory air volume trajectory, an expiratory carbon dioxide flow versus expiratory air volume trajectory, an expiratory carbon dioxide volume to expiratory air volume ratio, an expiratory air flow at onset of inhalation, a model of an expiratory waveform, a peak to mid-exhalation airflow ratio, duration of reduced exhaled airflow, and a Capnograph waveform shape.



FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO,
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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER

IPC: A61B 5/08(2006.01);A61M 15/00(2006.01),16/00(2006.01)

USPC: 600/529,532,533,538;128/200.24,204.18,204.21,204.23,204.26

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)

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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)

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 6,723,055 B1 (HOFFMAN) 20 April 2004 (20.04.2004), whole document.	1-10,14,16-19, 22-24,26-27,30-31,34-35,38-40 ----- 11-15,20-21, 25,28-29, 32-33,36-37
Y	US 6,612,995 B2 (LEONHARDT et al) 02 September 2003 (02.09.2003), whole document.	1-40



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"O"	document referring to an oral disclosure, use, exhibition or other means	
"P"	document published prior to the international filing date but later than the priority date claimed	"&" document member of the same patent family

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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

Henry Bennett

Telephone No. (571) 272-3700