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(54) **MATERNAL-FETAL MONITORING SYSTEM**

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(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 305 days.

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See application file for complete search history.

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(57) **ABSTRACT**

A maternal-fetal monitoring system for use during all stages of pregnancy, including antepartum and intrapartum stages. The maternal-fetal monitoring system of the subject invention comprises (1) a set of sensors; (2) an amplifying/filtering means; (3) a computing means; and (4) a graphical user interface. Accurate clinical data, which can be extracted and provided to the user in real-time using the system of the invention, include without limitation, maternal electrocardiogram (ECG) signals, maternal uterine activity signals (EHG), maternal heart rate, fetal ECG signals, and fetal heart rate. In a preferred embodiment, the maternal-fetal monitoring system of the invention includes an intelligence means, such as a neural network system, to analyze and interpret clinical data for use in clinical diagnosis antepartum, intrapartum and postpartum, as well as delivery strategy.

22 Claims, 23 Drawing Sheets

