Title (en)

OPTIMIZING SENSOR PRESSURE IN BLOOD PRESSURE MEASUREMENTS USING A WEARABLE DEVICE

Title (de)

OPTIMIERUNG DES SENSORDRUCKS BEI BLUTDRUCKMESSUNGEN MIT EINER WEARABLE-VORRICHTUNG

Title (fr)

OPTIMISATION DE PRESSION DE CAPTEUR DANS DES MESURES DE PRESSION ARTÉRIELLE À L'AIDE D'UN DISPOSITIF PORTABLE

Publication

EP 4395635 A1 20240710 (EN)

Application

EP 22863785 A 20220803

Priority

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- IL 2022050840 W 20220803

Abstract (en)

[origin: WO2023031906A1] Systems and methods for optimizing sensor pressure in blood pressure (BP) measurements using a wearable device are provided. An example method includes recording photoplethysmogram (PPG) data using a PPG sensor of a wearable device while a pressure applied by the PPG sensor to a blood artery of a user is gradually increasing, monitoring a pulsating parameter associated with the PPG data, determining that the pulsating parameter has passed a critical value, in response to the determination, causing the increase of the pressure to stop, recording further PPG data using the PPG sensor and electrocardiogram (ECG) data using input plates of the wearable device, analyzing the further PPG data and the ECG data to determine a pulse transit time (PTT), a pulse rate (PR), and a diameter parameter, and determining, using a pre-defined model, a BP based on the PTT, the PR, and the diameter parameter.

IPC 8 full level

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CPC (source: EP)

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