

ABSTRACT

DEVICE FOR APNEA DETECTION

Example embodiments include devices and systems that detect apnea events of a user. The device includes a first sensor configured beside the head of the user for capturing snoring sounds of the user, a second sensor configured on one finger of the user for capturing cardiovascular parameters of the user, a third sensor configured under the trunk of the user for capturing breathing movements of the user, a data recorder that is connected with the first sensor, the second sensor and the third sensor for receiving recordings therefrom, and a clock for synchronizing the recordings in real time. The recordings include one or more breathing events including snoring events, heart rate and SPO₂ conjunction spikes, and breathing movement cessations. The time periods that apnea events are impossible can be excluded according to a combination of the breathing events, and the apnea events can be detected thereafter.

(fig. 1)