Improvement of the BT-Heartomotive Device for Avert Car Accident using MYBradyTachyHeart Mobile Application

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Abstract:
Nowadays, the pulse oximeter used in the medical device is a noninvasive sensor capable for monitoring the blood's oxygen saturation. It has been widely used in medical, fitness and clinical care. The prototype development of brady-tachy heart automotive so-called BT-Heartomotive device is well developed. This device purposely to prevent motor vehicle accident using the oximeter sensor. In this study, we focus on enhancing the BT-Heartomotive device to preventing the car accident by using a mobile application. The emergence of wearable sensor and wireless mobile technologies enable to detect and monitor the changes in health parameters irrespective of places and time. It will be much more convenient for the patient to do a self-test diagnosis by using a wireless heart monitoring device. The BT-Heartomotive device is simple, easy to use, low cost, automated and provides reliable heart rate monitoring result. This kind of real-time assistive medical diagnosis system consists of a pulse oximeter sensor. The heart disease can be detected if the threshold value of the heart rate is maximally exceeded. The pulse sensor and mobile apps. Is connected wirelessly via Bluetooth module. Then, the pulse sensors used for transmitting the heart rate signals to the mobile apps. and monitor device. These mobile apps. used for monitoring purpose to display the patient's heart rhythms on the screen of the phone. The driver can observe their heart rhythms easily by using this mobile app. This device also alerts the passenger to quickly attend to help the driver. The device shows good accuracy in the detection of the heart rate level. Heart rate measurement can reveal a lot about the physical conditions of an individual.

Keywords: Brady-Tachy; Medical Device; Driving; Heart Rate; Car Accident; Automotive; Oximeter.

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