

Non-invasive blood pressure and heart rate sensing using photoplethysmogram sensor

ABSTRACT

The non-invasive and cuffless blood pressure (BP) and heart rate (HR) monitoring device is designed to help people to monitor their BP and HR regularly. A Photoplethysmogram (PPG) sensor was used to obtain the PPG signal needed for the BP and HR calculations. The performance of the BP and HR monitoring device was tested based on the accuracy of the readings obtained by comparing readings from the proposed device with the readings obtained by clinical instruments. The factors that are affecting the accuracy of the sensor are also discussed in this paper.