

## ***Abstract: Pulse Oximeter Monitor for u-health Service***

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### **Abstract**

In this paper, a pulse oximeter monitor is proposed to monitor essential biometric data such as SpO<sub>2</sub> and pulse rate. The proposed monitor consists of a pulse oximeter, a personal health device (PHD) agent and a PHD manager. The pulse oximeter measures pulse oximetry data noninvasively. PHD agent is placed in nonstandard pulse oximeters, and the PHD manager is placed in mobile devices. The PHD agent converts measured pulse oximetry data to ISO/IEEE 11073 message format and transmits it to the PHD manager. The PHD manager analyzes the message from the PHD agent, collects the pulse oximetry data, and displays these to the user. By using the pulse oximeter monitor, nonstandard PHDs can be standardized and personal health data can be monitored continuously through a user's mobile device.

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