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Paper Title:	VI-PAL: DEVELOPMENT OF A MOBILE APPLICATION FOR PULSE RATE, OXYGEN SATURATION AND BODY TEMPERATURE MONITORING OF THE ELDERLY
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Abstract

In recent years, healthcare monitoring systems in hospitals and health centers have surged, enabling patients to track their health from home. This is particularly valuable for early detection of diseases, which can reduce suffering and healthcare costs. Elderly individuals, in particular, benefit from such systems, as many face challenges visiting hospitals due to physical and social limitations. To address this, researchers designed the Vi-pal mobile application, a user-friendly system specifically tailored to monitor older people's vital signs like heart rate, oxygen saturation, and body temperature. This study introduced the Vi-pal mobile application, built using Android Studio, which connects to the health monitoring device via Bluetooth. The app also provides historical health data for specific dates and features automatic alerts through SMS and app notifications when health metrics deviate from optimal levels. The system's usability was evaluated using the System Usability Scale (SUS), yielding a score of 79.5, which is considered good usability based on the standard score range of 68.0 to 80.3.