ABSTRACT

The development of the Internet of Things (IoT) has had a significant impact across various industries by enabling devices to connect and communicate with each other, thereby facilitating the automatic collection and transmission of data. One relevant application of IoT is in body temperature monitoring systems, which can help provide accurate data for various temperature measurement needs. This research aims to design and implement an IoT-based body temperature monitoring system that integrates the DS18B20 sensor for temperature measurement and Radio Frequency Identification (RFID) technology for automatic identification. By utilizing the DS18B20 sensor, the system can measure body temperature accurately, while RFID technology enables efficient automatic identification. This system is expected to accelerate and improve the accuracy of body temperature and user identity data recording. Additionally, this study analyzes the effectiveness of system usage through the System Usability Scale (SUS) method to evaluate user satisfaction and ease of use from the user's perspective. The expected outcome is the creation of an efficient and effective body temperature monitoring solution with more automated and accurate data management processes.

Keywords: Internet of Things (IoT), Body Temperature, DS18B20 Sensor, Radio Frequency Identification (RFID), System Usability Scale (SUS).