ABSTRACT

During the current COVID-19 pandemic, the large number of positive cases of infection has resulted in medical institutions lacking personnel to treat patients who continue to arrive. As a result of these problems, supervision and monitoring of room conditions is still lacking or even non-existent, so that the recovery process can be hampered or can facilitate the transmission of the virus to other people. It takes a device or tool that can monitor conditions and regulate the isolation room so that the temperature and humidity remain in the optimal zone so that recovery can be optimal and also reduce the risk of virus transmission. Based on this description, the author applies the concept of IoT by utilizing the IoT platform system and designing a system and tool that can monitor and regulate the COVID-19 isolation room and convey this information quickly and concisely. In addition, this study also examines how well and easily understood the system is when used by end-users by using the System Usability Scale or SUS as its usability testing method. The results obtained from this study are that the system and equipment function properly, the automation system and the method used are able to mitigate changes in temperature and humidity in the isolation room, and through the SUS method, the level of usability for end-users is deemed quite sufficient.

Keywords: IoT, COVID-19, DHT11, NodeMCU, System Usability Scale (SUS)