

ABSTRACT

The increasing number of students who continue their education to the university level, make most of them wander from outside the city and resulting in an increase in room boarding service providers. The quality of the rooms and lifestyles of diverse occupants and also the lack of knowledge about the health of the rooms impacts the health of a room boarding environment. Therefore, room boarding service providers should know the level of environmental health so that the occupants feel comfortable and not susceptible to disease accompanied by awareness of unhealthy environmental conditions.

To overcome the above problems, then made a health detection system for college student rooms based on the parameters listed in the regulation of the Minister of Health in Republic of Indonesia Number 1077/MENKES/PER/V/2011 about Guidelines for Air Remedies In The Home Room. The displayed parameters are temperature, humidity, light intensity and carbon monoxide (CO) content in the room which can be viewed in realtime through web interface using Internet of Things technology.

The results of functionality testing show that all functions are running properly. Web interface is integrated with the realtime database and authentication in Google Firebase platform. The average delay is 1.18 seconds on test results in two rooms with different devices simultaneously. Then, qualitative testing using questionnaires to the occupants, obtained an average value of 4.23 from a scale of 1-5 and qualitative testing to the owner of the room boarding found an average value of 4.40 from a scale of 1-5. It can be concluded that according to the questionnaire value, web interface is quite good.

Keyword : Boarding House, Realtime, Web Interface, Internet of Things