

ABSTRACT

Along with the development of the times the air intensity is getting worse caused by the number of public vehicles and factory pollution in the city of Purwokerto, coupled with sunlight getting hotter so that solar radiation increases. There is no system that can determine the value of solar radiation and carbon dioxide (CO₂) levels in Brobahan park, Purwokerto city which is good for health. With the IoT technology can find out the value of solar radiation and carbon dioxide without the need to be at the location of the device installation in the park Brobahan Purwokerto city. From these problems, the solution that can be offered is to provide a monitoring system device in the form of an MQ-135 sensor to monitor carbon dioxide levels in the park area and a BH1750 light intensity sensor to monitor solar radiation values that can be monitored with IoT technology for remote communication. This system uses 2 sensors connected to firebase and displayed on the Mit App application. Monitoring is done in real time which can be accessed through the Montako application. The parameters that will be analysed in this study include MQ-135 sensor testing, BH1750 Light Intensity sensor testing, battery testing. The results of the test showed the highest carbon dioxide level of 1138.3 ppm, and the highest solar radiation of 431.44 W/m² at 10:00 WIB.

Keywords: *solar radiation intensity, Internet of Things(IoT), light intensity BH1750, MQ-135, Mit App*