Abstract

The increased awareness by residents of their environment to maintain safe health states has consequently, birthed the integration of info tech to help resolve societal issues. These, and its adopted approaches have become critical and imperative in virtualization to help bridge the lapses in human mundane tasks and endeavors. Its positive impacts on society cannot be underestimated. Study advances a low-cost wireless sensor-based ensemble to effectively manage air quality tasks. Thus, we integrate an IoT framework to effectively monitors environment changes via microcontrollers, sensors, and blynk to assist users to monitor temperature, humidity, detect the presence of harmful gases in/out door environs. The blynk provides vital knowledge to the user. Our AQuaMoAS algorithm makes for an accurate and user-friendly mode using cloud services to ease monitor and data visualization. The system was tested at 3 different stages of rainy, sunny and heat with pollutant via alpha est method. For all functions at varying conditions, result revealed 70.7% humidity, 29.5OC, and 206 ppm on a sunny day. 51.5% humidity, 20.4OC and 198ppm on a rainy, and 43.1 humidity, 45.6OC, 199ppm air quality on heat and 66.5% humidity, 30.2 OC and 363 ppm air quality on application of air pollutant were observed

Keywords

Wireless sensor networks; Internet of Things; Blynk platform; Air Quality Monitor; Environmental Monitoring

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