Universiti Teknologi MARA

Air Pollution Monitoring System with the Internet of Things (IoT) Technology

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Thesis submitted in fulfillment of the requirement for Bachelor for Science (Hons)
Data Communication and Networking
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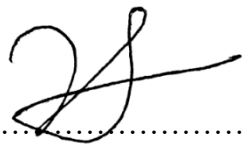
December 2018

STUDENT DECLARATION

I certify that this thesis and the project to which it refers is the product of my own work and that any idea or quotation from the work of the other people, published or otherwise are fully acknowledged in accordance with the standard referring practices of the discipline.



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DECEMBER 3, 2018

ABSTRACT

Air pollution nowadays becomes an issue that worries the community in the big cities such as Kuala Lumpur and Penang. The polluted air affects human health in Malaysia, especially the elderly and asthmatic people or those who involved in outdoor activities in sport and recreation as well as people with a working environment that exposes them to unhealthy air quality. The factors that contribute to air pollution include haze, smoke coming from vehicles and factories, open burning, as well as dust and debris. Most of the cities are facing the issue of poor air quality which is not good for human health. It is crucial for cities to have the system that can monitor air quality based on the index used to measure the air pollution. Hence, this project proposes a tool that can detect the degree of pollution in the air quality and publish the information real time on the websites or electric bulletin board. It is developed by using Arduino gas sensor, to detect gases such as smoke, benzene, carbon dioxide and alcohol. The data captured from the tool will be recorded in the database to measure the air quality and determine the degree of danger it may cause to society. It can alert the public to avoid certain area and help maintain the happiness and healthiness of the community. The tool had been tested in several locations and the finding shows a positive result and its potential to be further enhanced and commercialized.

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