

VISUALIZATION OF AIR POLLUTION INDEX USING WEB APPLICATION PROGRAMMING INTERFACE TECHNIQUE

¹Nurul Atikah Binti Rosshidi & ²Mohammad Hafiz Bin Ismail

¹nrulatikahr@gmail.com

²mohammadhafiz@perlis.uitm.edu.my

ABSTRACT

Visualization can be termed as the representation of an object, situation, or set of information as a something that people can see. In the early days of abundant resources and minimal development pressures, only a little attention was paid to the growing environmental concerns such as air pollution. Therefore, it has become necessary to spread awareness about air pollution index to the community. The research aims to develop a visualization of air pollution index using web application programming interface technique (API) called VaPi. VaPi is developed to allow users to know about the air pollution index. The reading of air pollution index is extracted from Jabatan Alam Sekitar's server. The research is focusing on developing a system by using Internet of Things as a platform. Nodemcu and related components such as LED and LCD will be used to develop the system. The system will be tested using Technology Acceptance Model method. The method consists of four aspects which are perceived of usefulness, perceived ease of use, user satisfaction and attributes of usability. There were thirteen participants in Perlis and three participants in Penang that involved in the evaluation phase since VaPi only covered three places which are Penang, Perlis and Kedah. From the findings, it can be interpreted that most of the participants were agreed to use VaPi. The participants also suggested that VaPi should cover more places and add alarm system if the reading of air pollution index is critical. For the future works, VaPi will be enhanced by making it more portable and display time of the retrieval data of air pollution index.

Keywords: air pollution index, web application programming interface, Internet of Things, LED, LCD