

Universiti Teknologi MARA

**INTERNET OF THINGS (IoT)
DEVICE FOR WEB BASED
MONITORING OF GAS LEAKAGE**

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**Thesis submitted in fulfilment of the requirements
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STUDENT DECLARATION

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

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ABSTRACT

The level of pollution has increased with times by lot of factors like the increase in population, increased vehicle use, industrialization and urbanization which results in harmful effects on human wellbeing by directly affecting health of population exposed to it. The ice factory's area should be in a safe environment. Ammonia gas was one of the harmful gasses in the ice factory. Furthermore, the area of the ice-factory must be carefully monitored with a system that identifies future threats. One of the threats which can affect the atmosphere of factories was gas leak. In order to monitor it, an Internet Of Things (Iot) Device For Web Based Monitoring Of Gas Leakage have been developed so that it can monitor the air quality over a website and display the information using internet and will trigger an alarm when the air quality goes down beyond a certain level, means when there are sufficient amount of harmful gases are present in the air like CO₂, smoke, alcohol, benzene and ammonia. It will show the air quality in PPM on webpage so that we can monitor it very easily. In this IOT project, you can monitor the pollution level from anywhere using your computer or mobile. The methodology of this project involves initiation, planning, development, evaluation and documentation phases. The results from testing shows that the system is able to provide useful information, the website is well designed and users had good experience using the system but still need to be improve in future. Implementation of GSM module also can be considered for future work so that user can be alert by using SMS technology.

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