### SMOKE DETECTOR USING ATMEGA328

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A project report submitted in partial fulfillment of the requirements for the award of the degree of Diploma of Electrical Engineering (Electronics)

#### FACULTY OF ELECTRICAL ENGINEERING

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"I declare that this report entitled "Smoke Detector Using Atmega328" is the result of my own group research except as cited in the references. The report has not been accepted for any degree and is not concurrently submitted in candidature of any other degree."

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In the name of Allah S.W.T, the Most Gracious, the Ever Merciful. Praise is to Allah, Lord of the Universe and Peace and Prayers be upon His final Prophet Muhammad S.A.W.

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#### ABSRACT

Due to the dangerous smokes that have been release by several factory without thinking their affect, this project was create to measure the smoke level in the surrounding air. This project presents the design and developments of a prototype smoke detector using ATMega328. This project involves both hardware and software development. This smoke detector is design to educate people on the danger of smoke release in factory. The main component in this project is MQ3 sensor as an input that will detect the level of smoke release in the air. ATMega328 act as a microcontroller for this project. The ATMega328 are programmed to detect the level of smoke in the air using Arduino software. Furthermore, this project also to alert people on how dangerous the smoke release by factory that could harm their health. Finally, the objective is to educate people to take precautions because of the smoke release by factory. The smoke release by the factory will be measure by MQ3 sensor. MQ3 sensor is a gas type sensor which means it will detect gas. If the sensor detect the smoke that has HIGH value, it will show the display on the lcd screen and the buzzer will be ON. If the sensor detect the smoke that has LOW value, it will also show the display on the lcd screen and the buzzer will be OFF.

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