

**DEVELOPMENT OF MONITORING SYSTEM FOR SAFETY APPLICATIONS  
USING MOBILE PHONE**

Undergraduate Design Project  
Submitted to the Faculty of the  
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In partial fulfillment  
of the requirements for the degree  
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major in Electronics Technology

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## ABSTRACT

**DIATE, ANTON JOHN C. and PEÑA, RAMON PAULO N. Development of Monitoring System for Safety Applications using Mobile Phones.** Undergraduate Design Project. Bachelor of Industrial Technology major in Electronics Technology. Cavite State University, Indang, Cavite. June 2018. Adviser: Mr. Ronald E. Araño.

The main objective of this project was to develop an embedded system, which is used to provide security for intruder detection in industries or residences using mobile phones.

This project was implemented using Gizduino 5.0 based ATmega 328 developed board interfaced with Fire Sensor, Gas Sensor, Temperature Sensor, Smoke Sensor, Buzzer, and LCD for display purpose.

There was a lot of requirements to automate the security systems and ensure the security of industries or residences at low cost. The project was going to develop an embedded security system which will detect the gas, temperature, smoke, and fire.

The security system used mobile phone to inform the authorized person which means it is a GSM-based security system. The project worked due to embedded designed board containing a fire, temperature, gas and smoke sensors. It automatically sends data to the authorized person in that particular industry or residence. Then, the authorized person can also alert someone with that message.

The system can work standalone and can also be integrated to a computer using rs-232 port. The complete code for the embedded system was developed using C# language.



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