**FEDERAL UNIVERSITY OF TECHNOLOGY OWERRI,**

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IMO STATE

A RESEARCH ON

AUTOMATING EMERGENCY SERVICES SYSTEM

IN NIGERIA

(MGT 447)

REPORTED BY

GROUP 43

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TO

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**ABSTRACT**

Emergency services are rescue organisations that respond to alerts from unrest or that help resolve aggravated problems in an environment. They are authorised peace makers, problem solvers and also, they protect people from harm.   
Examples of organisations that use these services are the police force, fire brigade, medical services (ambulance) and other security organisations like those hired by large firms.

This research presents in clear terms, the quicker, easier, reliable and effective ways of alerting and communicating with these emergency services.

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**CHAPTER ONE**

**INTRODUCTION**

BACKGROUND OF STUDY:

Automating a system is an organised and well-co-ordinated act of creating a platform that will enhance the effectiveness and efficiency of the system and also to create a better relationship between the outside world and the system therefore automating emergency services system in Nigeria is all about making the necessary upgrades needed for the system be better.

All emergency systems in Nigeria need automation as a result of the fact that Nigeria as a country is still developing and there is minimal use of advanced trending technology due to lack of the required facilities.

Some of the emergency services that need system automation are

* The Nigerian police force (for protecting lives and property),
* Medical services (for emergency need of ambulance),
* Fire services,
* Anti-bomb squad.

PROBLEM STATEMENT:

Due to the poor standard of operation of the Nigerian emergency services, uncountable number of lives have been lost or unaccounted for which has led to the lack of trust and reliance on these services causing a decrease in validity and patronage of the services.

For example; If you need the services of the Nigerian police force, you will have to dial a number consisting of so many digits that can hardly be remembered and sometimes it would end up being a broken connection. If the connection goes through, the reaction to the call might end up being irrelevant because they might respond after the damage has been done.

In the case of medical services, there is little or no connection and communication link between medical units and the locality and someone that needs urgent medical attention might die before he or she gets to the hospital. Also a patient must be registered in their database which is made up of physical files which takes a lot of time to arrange and decipher.

This research seeks to bring the factors that has to be put in place to make the system better by means of creating systems and bringing in specialists to handle the system.

OBJECTIVE OF THE STATEMENT:

The aim of automating this system is to make these services more valid, efficient, effective and to reduce the difficulties in operating with the system.

RESEARCH QUESTIONS:

* WHAT IS THE PROBLEM? The system is unorganised, uncoordinated and it lacks proper management and qualities.
* WHY IS IT A PROBLEM? The system renders services to the public but it is either unreliable or hard to link up.
* HOW WILL THE RESEARCH ADVANCE THE SOLUTION TO THE PROBLEM? The research seeks to find ways to advance the quality of the system by creating platforms that will make it easier to link up with emergency services and will also equip these services with systems that will help them in locating the places they are needed and how to carry out their services appropriately and effectively.

HYPOTHESIS:

This research tries to establish the means of developing some peripherals that will improve the system qualities like a few digit emergency code, panic buttons for all emergency services, android emergency application, online medical registration system, computed medical database systems, database for geographical location of service arears and a system expertise at the receiver end to link you up with the nearest emergency service of your choice.

SIGNIFICANCE OF STUDY:

The sturdy is important because it will help to reduce the disadvantages of poor access to these emergency services like loss of life and properties and it will also make these services to be reliable, advanced and regarded once again.

SCOPE AND LIMITATIONS:

The scope is for every individual to be able to appreciate and have to access this system.

And for all emergency services to strictly use this system.

The limitation of this research is on the fact that it will take a longer time to create the system and implement it.

**CHAPTER 2**

**LITERATURE REVIEW**

* CONCEPTUAL REVIEW:

The concept of this research is to create a fast link between the between the people and their close-by emergency services and them to connect to it with minimal resources and without time wasting.

For example, to connect to any emergency service of your choice, you can either press a panic button located at any place of interest in your home or dial a 3-digit alert code like 711 and request for any services (as 911 is used as an emergency code in other foreign countries like USA), or pressing a button in a phone application that sends a direct alert to the particular required service.

For other system peripherals to be automated, a system expertise will be assigned to these units to control them. Like in the medical sector, a database analyst will be assigned to compute a database of all those registered to the health-care service.

* THEORETICAL REVIEW:

The Nigerian emergency services body will be given fast-linking network line that needs a three-digit code to connect to by any trusted broadband co-operation assigned by the government as governments around the world are encouraging broadband deployment and use as part of their national economic and social development strategies. Broadband is the underlying infrastructure not only for major improvements in productivity, but also to connect small and medium-sized businesses with their customers; farmers to their markets; students to quality education; villagers to modern healthcare; and communities to each other to address a vast array of interests. The same infrastructure is being used to deliver modern, effective government services to citizens. Accelerating the deployment and use of affordable broadband remains an important element in government plans, including the plans of several African countries, even in the face of many competing priorities. This is because broadband is widely understood to be the key infrastructure underpinning and enabling participation of individuals and businesses in the 21st century knowledge economy.

Also, the Nigerian emergency services can have a google or web application and also website by assigning a technician to develop a website for them and give them a web server that contains all the registered individuals and their locations so that users can easily access the web application and register for these emergency services by inputting your data on the website and submitting it online to be stored on their server.

In that case, whenever you need an emergency service, you will just open the emergency application on your mobile phone by clicking on it and tapping on any panic button on the application to choose the particular service you need.

* EMPIRICAL REVIEW:

This system entails the introduction of Information Technology into emergency services which means that tools used in Information technology are to be used. Some of these tools are:

* Network cables and free wireless network, Sensors, Radar technology and standard GPS for the operation of panic buttons and making emergency calls;
* HTML, CSS, JavaScript, PHP and MySQL for creating a website and handling a web server for the online registration system and management of databases;
* Python, Katlin and Android for the emergency applications.

The system will be user friendly in the sense that any individual will be able to interact with the system.

These systems will have structural qualities such as:

* Accessibility (Everyone should be able to gain access to this system)
* Progressive enhancement (New devices should be able use this system)
* System standard (The system should be one hundred percent functional)
* Vision Impairment (Assistance for blind people or people with poor vision)
* Mobility Impairment (The system should be used anywhere and not only in the home)
* Physical Impairment (Those that are physically disabled should be able to use this system with either their arms or feet)
* Auditory Impairment (This is for the users that have hearing problems. The system should have a means by which the deaf and dumb will use to request for any emergency service they need)
* Cognitive Impairment: This entails that everyone will have a perfect knowledge and understanding of the system.

**CHAPTER 3**

**METHODOLOGY**

For full functionality of this system, the emergency services will have system operators assigned at the receiving end of the system for redirecting the alerts required in the communication process.

To access this system, a user can make a phone call by dialling three digits and telling the operator the kind of service to be required. Also a user can access this system by registering online and using the emergency application for mobile phones which contain buttons representing different emergency services. All the user has to do is to tap the required button and wait to be served.

HOMEPAGE

GUIDE

LOGIN / REGISTER

SUBMIT

DETAILS / SERVICES

**Fig 3.1** This is the picture of the method used for the online registration system for the emergency services.

The steps involved are

* Open any web browser of your choice and search for the portal of the Nigerian medical services.
* If it is your first time of entering the portal and you have not signed up before, you click on sign up and fill in your details and click submit.
* By doing that, your details will be registered in the database of the emergency service at their server end.
* But if you have signed in before, you can just login directly with your password and edit your details.
* By doing this, you can book an appointment with a doctor or get much more information about the emergency services.

Download application from google play store

Guide / Settings / About

Panic buttons

**FIG 3.2** This is the picture of the method used to get the Emergency services application.

* To utilise the application after download, you just press the panic button of your choice, and the application reads your location and relays the message to the emergency service requested for.

**CHAPTER 4**

**RESULT AND DISCUSSIONS**

The general implementation of this automated emergency service system will reduce the disadvantages of the physical method. In this case, people can easily call for help in times of distress. For example, if a pregnant woman is at home and she is at the verge of giving birth, instead of trying to get to the hospital, she can easily call for medical services and also get information on what to do with ease.

Once this system comes into play, there would be reduced loss of life, increased protection and majority of the population will want to appreciate this new concept.

**CHAPTER 5**

**CONCLUSION AND RECOMMENDATION**

The introduction of the automated emergency services system in Nigeria will make these services operate faster and also make them precise. Also this system should be recommended in Nigeria to help save lives, provide job opportunities and immediate health care services.

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