

## E-Safety

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**Abstract** - This paper presents the design of an application which helps in enhancing the security.

The implementation of E-Safety - an Android app is the central focus of this project designed with Android Studio for the front end interface while Firebase is used to design backend of the application. The system works on the principles of client-server system, wherein the server responds to the requests of the clients.

After registering details, information will be placed onto server database so that rescue team will get information and provide appropriate services to the person. In the proposed work, we will record all emergency details of rescued person with location onto maps, GPS will provide detection of emergency person coordinates and also provide plotting coordinates onto maps in the web application.

**Key Words:** E-Safety, Crime, Android application, GPS, Image Capturing.

### 1. INTRODUCTION

The system's main motive is to provide safety in order to lower the number of crimes and maintain safe environment. So now it is easy for people to file a complaint or request for emergency services like ambulance, fire brigade and women safety. The server can take quick action looking at the description, photos and the exact location of the client.

Various emergency handling services are present worldwide to cater to the emergencies faced by the common man. The USA has its own such system by the name 911. At present, India does not have such similar well defined crime & emergency handling approach. E-Safety, an android application is developed keeping in mind the lack of any such system in India. It provides a properly planned and organized emergency management force, capable of responding to public emergencies.

The person in an emergency or anybody at the emergency site will use E-Safety to avail the service. The common man can make use of this system in case of any emergencies. The system works is such a way, that victims will receive help in the form of police, ambulances or fire-brigades depending on the situation. This system drives to and responds to emergencies promptly.

### 2. AIMS AND OBJECTIVES

In today's world, people with smart phones have increased rapidly and hence, a smart phone can be used efficiently for personal security or various other protection purposes. The heinous incidents that outraged the entire nation have woken us to go for the safety issues and so a host of new apps have been developed to provide security systems via phones. This system drives to and responds to emergencies.

### 3. LITERATURE SURVEY

The current E-Safety application is built knowing the problems that are faced in the earlier system. In existing system, there is no instant notification to the police system. Also, exact location of the place where crime has taken place is not reported. The E-Safety application provides one most important service that is uploading the images of the crime which can be taken as proof to the police. The following are main features of the application:

*Exact location:* This application sends the exact location with the help of GPS; your mobile location will be sent along with your complaint.

*Image uploading:* Along with your complaint you can send an image as a proof, so it gets easier for police.

*Fake complaints problem resolved:* One cannot place a fake complaint because while you sign up in an application, the details about ones phone number and address are registered with the server as well. Without those details, user cannot register. So there is no chance of placing fake complaints and if anyone does, will be caught easily.

In recent years, acts of assault and violence against women are rising at a menacing rate. With escalation of female employees in industries and other sectors of the commercial market, it is now becoming a necessity for females to travel at late hours and visit distant and isolated locations as a part of their work regime. However, the exponential increase in assault, violence and attacks against women in the past few years, is posing a threat to the growth and development of women. Many unfortunate incidents have been taking place in women case. Problems may come from any direction such as women walking on the road after the work, going to super market or many other reasons for which they go alone. People at home are not sure of their return safely. Another factor is woman die without knowing the reason as they attend excursions and industrial trips conducted by the

organizations. In order to achieve security in any case; this application is implemented.

#### 4. PROBLEM STATEMENT

Human society has never been totally free of deviants and it is unlikely that society will ever be. The more populated and complex a society becomes the wider the range of antisocial conducts that must be controlled by the government through the armed forces and other agencies especially the Police Force, Fire Brigade, Ambulance & Women safety.

This system functions in two ways. It can be by a traditional method i.e. by calling the emergency services or we can use the app which is very user friendly and with great efficiency. The main feature of an application is that it is easily accessible.

#### 5. PROPOSED METHODOLOGY

The system will consist of following components:

- **User:** The user for the application can be anyone who wants to file a complaint regarding anything. The user has to register after which he can login and start using the app.
- **E-Safety App:** It will act as an interface for the user. It will allow user to file a complaint from anyplace they are.

It is an android application that uses Java on the front end and Firebase at back end. It uses client-server architecture. On the client side the user has to login first to use the application. If the user doesn't have login details of his own then he/she has to sign up or register in the application. For registering, the user should give his name, email, mobile number and give a strong password. Email and mobile number is for better authentication of a user. After making an account user would be qualified to use all the services intended to protect and empower them. Services include an automated distress SOS to the nearest police station.

- **Databases:**

- User Database:** Has user details.
- Admin Database:** Has Admins i.e. police, fire, ambulance details.
- Details Database:** All the complaints/reports are stored.

Fig – 1 shows the block diagram of the application.

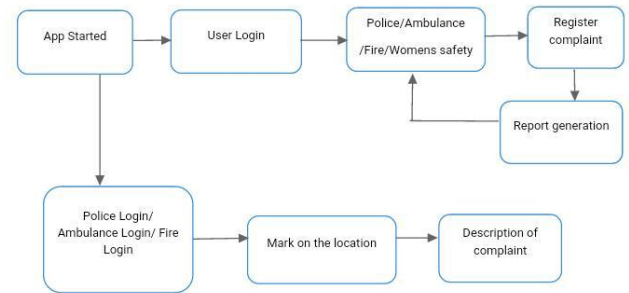
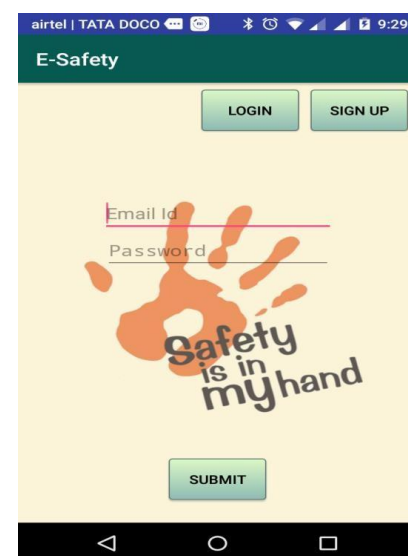
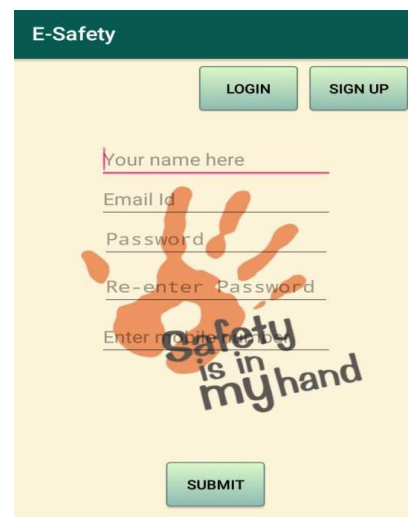


Fig -1: Block Diagram

#### 6. RESULTS

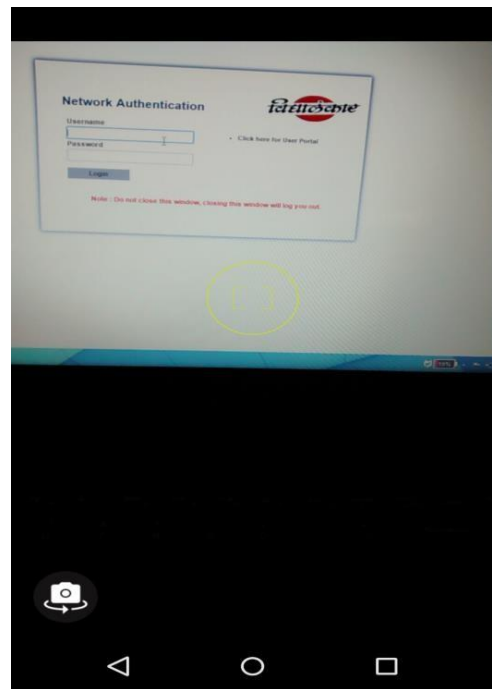
##### Login/Sign up



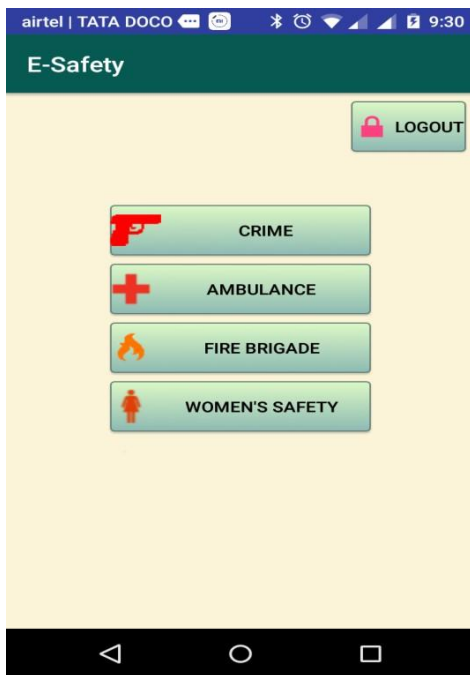
### Main Page



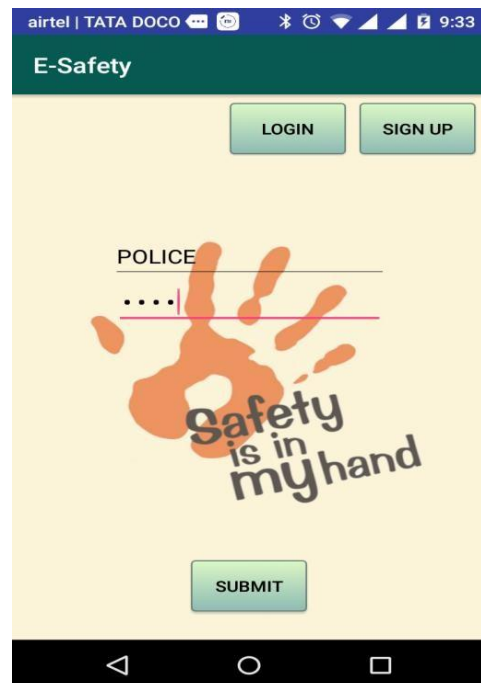
### Uploading Photo



### Description Page



### Admin Login



### Location



environment. It helps the people in any emergency using their android smartphone.

On implementing this application we are now able to help people for complaining or requesting for an emergency service through an android application. The application allows the victim to upload description and photos of the incident. Another advantage of this application is that it can track the exact location of the client so that the server can take quick action on it.

### REFERENCES

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### Request Details



### 7. CONCLUSION

Hence, the system's main motive is to provide safety in order to lower the number of crimes and maintain a safe