



# An Android Application for Women Safety Based on Voice Recognition

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**Abstract**— *In recent time, there are many misbehaving activity happening with women in urban and rural areas. This paper is about ‘An Android Application for Women Safety Based on Voice Recognition’. One in which, voice keywords is set for activation of the system. System recognizes the voice of the user. After system gets activate, it uses a GPS or WI-FI to track the location information of the user and send that location information. Simultaneously, an emergency signal is sent to people who are selected by the mobile user as a message via SMS. There is no need to handle mobile to activate the system and it will get activated even if mobile keypad is locked.*

**Keywords**— *Android, Voice Recognition, Message sending, GPS, WI-FI, Audio Recording*

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## I. INTRODUCTION

Women safety is major issue in India and also in other countries. It is not safe for women to travel lonely at mid night or wondering in unknown place. There should be helping hand for women because they are not physically as strong as men. As this time mobile phone can be best friend of the user. User can stay in contact with their loved one at any time. Anybody needs to make a call or send a message in emergency at anytime from anywhere.

Smart phones provides many facilities and cheaper internet cost. Android is provided with features like high resolution camera, Wi-Fi, GPS navigation, touch screen which helps the mobile phone users to keep in touch with the modern world. Android is a software stack for mobile devices. It includes an operating system, key applications and middleware. The Android SDK provides the tools and APIs use to develop applications on the Android platform using the Java programming language. It is a software platform, rather than just an OS, that has the potential to be utilized in a much wider range of devices. Android provides access to useful libraries and tools that used to build rich applications.

Women in emergency uses voice based contact list, they can select contact through voice and make call when required. For that user have to remember registered the key. It is called, text messaging service component of the phone, and uses standardized communications protocols. It allows sending of short text messages between mobile phone devices. Speech Recognition and Conversion in text will be the necessary part of the system.

## II. EXISTING SYSTEM

In the current scenario there is a highest priority issue of women security. Government has provided security through rules & regulation to society. There are different aspects, areas & scopes of women security. Recently security concern is the major problem. Major concern is that though women has reached everywhere in every field but still a question arises "ARE WOMEN SAFE". With the growing number of harassment and violence cases women security has become major area of concern. Women in India a better half of Indian society, today, are becoming the most helpless section as far as their safety and security is concerned. In distress situation, mobile phone can be the best protector of victim. Large numbers of women safety applications are available. These systems are quite handy and go a long way to keep victim safe on the road and alert the friends, family or police in distress situation.

### A. *bSafe- Personal Safety Application:*

This app can send message by triggering the button to the friends and family members. Location and video can be share with friends.

### B. *SOS –Stay Safe :*

It helps women to send out SOS alerts to family and friends in case of distress and emergencies. This is a system that reacts for only "3 clicks or a shake" to call for help.

### C. *SafetiPin-Complete Safety App:*

This system comes really helpful when travelling to a new or an unknown locality and wishes to know whether it is safe or not.

### D. *Women Safety Shield Protection :*

The system enables the user to simply hit the emergency button, take pictures which are then sent along with location and contact details to emergency contact list through SMS.

### E. *Nirbhaya:*

The app can be configured to send emergency message on shaking the phone.

## III. PROPOSED SYSTEM

The current women safety applications in market have to push the button to send message. It is difficult to press button in critical situation when keypad is locked. This paper deals with recognizing voice converted into text to send message. Message consists of GPS location information of the user. Message can be send even if the keypad is locked.

### A. *Database*

Database includes contact numbers and voice keyword. User register a contact list of people to whom user want to ask for help and keyword or voice is saved for recognition purpose Contacts and keywords are saved in database. Database is stored in mobile memory. Database used is SQLite database. There should be at least two and at max five contact numbers in database.

### B. *Voice Recognition*

Voice recognition module is use to recognize keyword spoken by the user. Keyword spoken by the victim is compared with the registered keyword. This keyword is matched with converted text. If keyword matched then message will be send.

### C. *Location Tracking and Address Finding module*

It requires GPS enabled mobile. Location will be tracked using GPS and WiFi. It finds the longitude and latitude of current location of user. Using longitude and latitude location is searched and an actual address is given via message. Internet is must in others mobile. GPS is disable system will not find the exact location of user. It will just send the longitude and latitude of the location.

### D. *Message Sending Module*

The GPS Application Program Interface (API) fetches the longitude and latitude coordinates [4]. Using longitude and latitude location is searched and an actual address is searched. Pre-stored emergency message is send to registered contact numbers [1] along with the longitude and latitude and an exact address of user. If network is not available on user's mobile then message goes in queue and when network gets available message is send. When message is send then notification is given.

### E. Audio Recording Module

Audio Recording module will record the conversation of that situation and stored in database. As soon as system will recognize voice it will send message and simultaneously perform audio recording. Recording is done up to for five minutes. And store in mobile memory. This recording will be used as proof.

## IV. OBSERVATION

This system is to provide emergency message by recognizing voice. Message is send to the contacts registered in database. There is no need to handle mobile manually or to push button. System will get activated even if mobile keypad is lock. It also records the conversation.

## V. RESULT

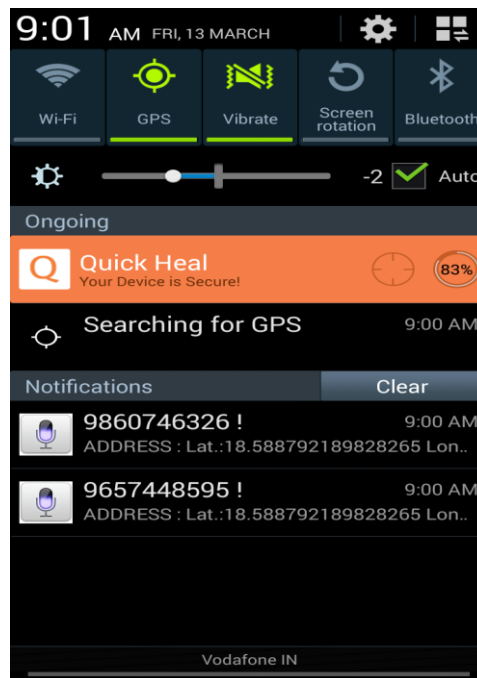


Fig. 1 Message sending notification

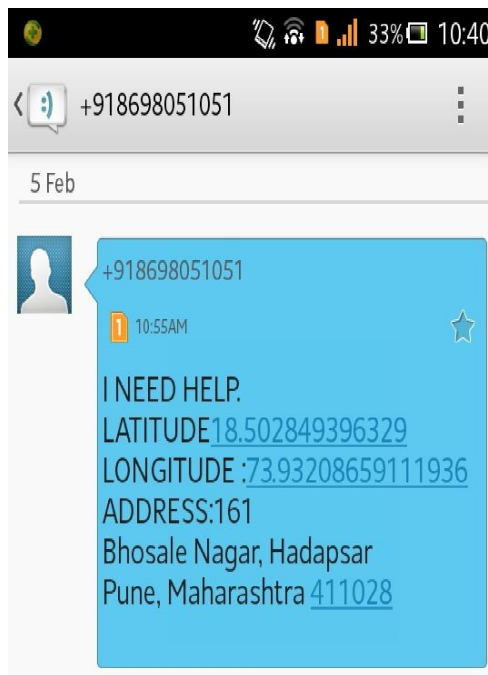


Fig. 2 Message sends to registered contact numbers

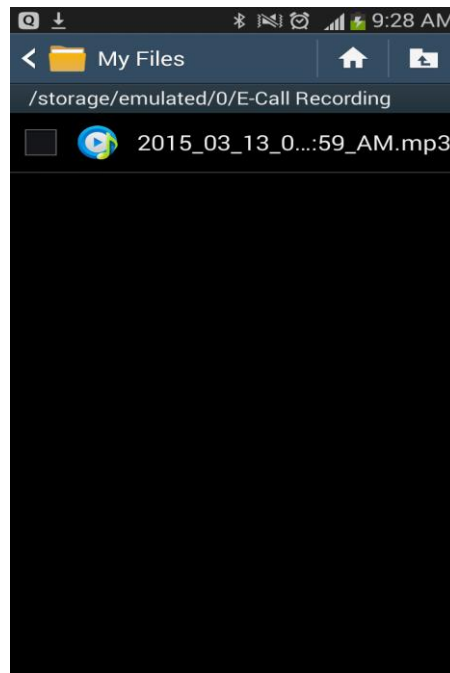


Fig. 3 Audio recording

## CONCLUSION

This paper is based on voice recognition to send message. This will help to victim to avoid misbehaviour. When victim is in critical situation at any time she can send stored message to parent or friends by speaking set key word. Message contains actual address of the current location find using GPS. Audio is recorded and stored in mobile memory.

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