

Mobile Anti Theft Security Using Sensor and GPS Tracking

Samruddhi Mure¹, Pratiksha Gulhane², Vaishnavi Jadhao³, Shalvi Salunkhe⁴, Prof. Namrata Khade⁵
^{1,2,3,4}Students, Department of Computer Science and Engineering, Priyadarshini College of Engineering,
Nagpur, India

⁵Guide, Department of Computer Science and Engineering, Priyadarshini College of Engineering,
Nagpur, India

Abstract - Increasing number of android user are gaining ground today Information Technology has its main focus on security application for example lost phone antivirus security of the user and other vulnerability smartphone smart watches ,tablets and laptops are not only medium of communication ,education ,banking but are also helpful in emergency situation thus reducing threats is the main objective this application support.

I.INTRODUCTION

In every sectors usage of mobile devices is rapidly gaining strength convenience and assurance of the user is through which this application is based upon. Security platform for android device support GPS sensor accelerometer magnetometer, gyroscope, microphone, SMS etc. As time flows hardware specification of smartphone device improve so does the security concepts of this application.

MOTION DETECTOR OR MOTION :-

Motion sensor is such an electronic device that is of integrated as a component of a system which alerts the user through an alarm monitoring device.

PROXIMITY SENSOR :-

Proximity sensors find some changes in the field or return the signal without any physical contact this sensor is able to detect the presence of nearby objects. Proximity sensor can be used to recognize air gestures and hover manipulations.

Charger detection:-

Charger detection make quantitative measurements, numerical measurements improve many electrostatic experiments, such as charging by induction, changing by friction, changing by contact through USB cable.

GPS TRACKING:-

- GPS system is a navigation system using satellites a receiver and algorithm
- This system helps user for location, navigation, tracking, mapping and timing.
- Emergency button allows the user to access alarm systems services that allow one to schedule to be run at some point to keep the track. This guarantees that the phone will not sleep until the device has identified the user.
- Through SMS the current location will be sent to the police department. The SMS precaution will provide the latitude and longitude through our device to the police department in case of any emergency.

II. METHDOLOGY

First the application requires a security pin or password which will be known only to the user and the device itself choice of the user is accepted by the system. Our project provides security modules like GPS system, proximity sensor, charger detection, motion detection, short message service or SMS system and alarm system. It collects the data required, trigger the sensor at a high frequency full volume alert will be generated.

A pin application cannot be minimized or closed. Neither the volume can be decreased in this process. The only solution is to insert the correct pin that was set at the first opening of the application by the user choice. In the GPS system the current location can be seen in the SOS button by the world map emergency button triggers the alarm that can be Stopped by the correct pin. SMS system will give the users devices current location to the police department.

III. FUTURE EXTRACTION

This application support all the Android devices without any lags also zero ads.

If you are lost at an unknown place GPS system will help the user to find their location. In emergency button if you activate it the alarm will trigger at a high frequency to notify the people around you in case you run into trouble. Motion detection will help in when you keep your device somewhere and forget to pick it up (office desk, shops etc.) Also in a charger detection if anyone instead to pick up the phone alert will be generated. Enabling proximity detection function helps if the device fall out of the socket or purse for someone intent to steal the device from your pocket/purse. In the case of kidnapping or crime etc. This function will notify the police via SMS.

IV. LITERATURE SURVEY

Many advancements have been made with time in different verticals of an organization. Development of emergence of powerful data sensing, data processing, data sharing. low power and low-cost sensor has been possible in the area of wireless communication and electromechanical systems.

There have been many works published related to GPS tracking system. All of these are implemented using external hardware interfaces. work done by Pradeep V Mistary and R.H. Chile represents vehicle tracking system using GPS, GSM modem and microcontrollers.

It is implemented for monitoring the movement at time of any equipped vehicle. The sensor system embedded in them provide various possibilities for mobile application. The multifunctional sensor nodes are tiny in size and capable of communicating readily over short distances various sensor(that includes both trivial and non-trivial sensors) available in a mobile phone. Using few of this sensor helps to solve the problem of security accelerometer and gyroscopes sensor (orientation based), GPS sensor ,proximity sensor has exceptional sensing capabilities.

V. PROPOSED SYSTEM

The project aim at designing a prototype that involves data collection, data processing, data sharing, data classification and assessment. The evaluation

describes the classification result by comparing entire pattern and then you result as follows.

(i)Data collection:-

Extracting data from the source for the motive of implementation. It starts when the user enables the functionality. The data is monitored by the system afterwards to use it to identify the behavior of the user based on how it is implemented by the user on his/her device.

(ii) Data processing:-

The data will get compared with the data mentioned in the code and accordingly will be the output. As data is always in monitoring application will know the correct data changed compared to the output of the sensor.

(iii) Data sharing:-

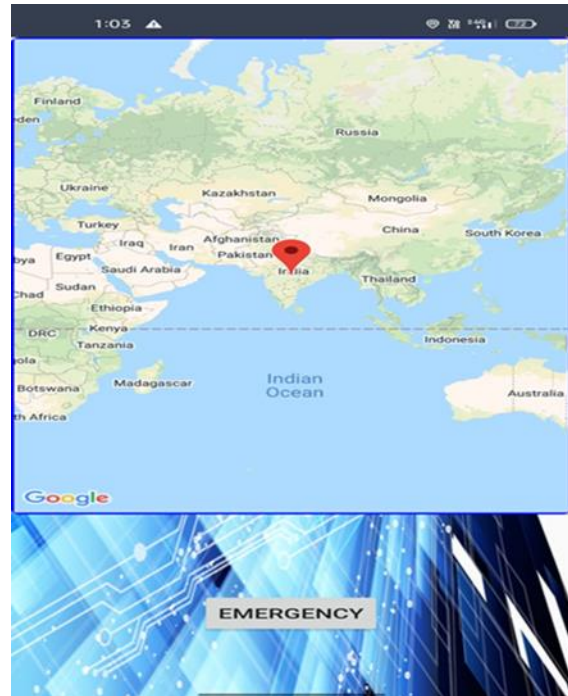
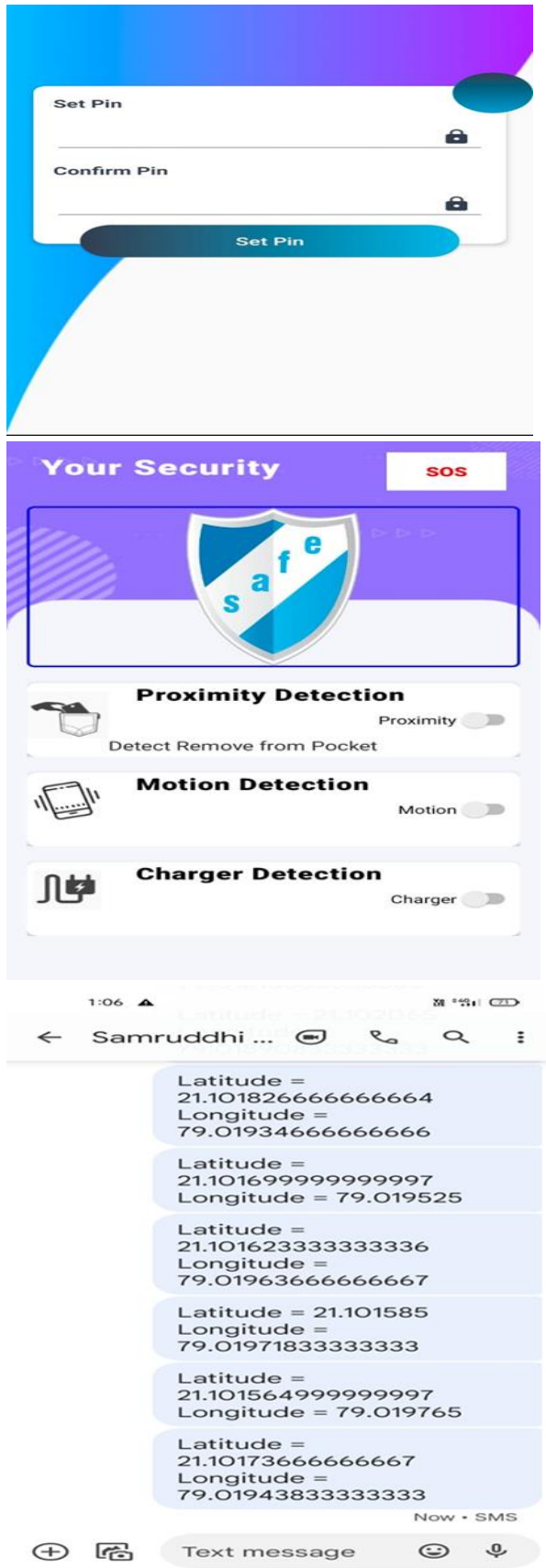
The Information can be communicated among other devices for the ability to distribute the same resources with the multiple users of application to gain better insights in an ethical way.

(iv) Data classification and Assessment:-

User can see the map, SMS is sent, alert will generate as soon as data from sensor get changed. It will shift to background and only the activity will pop up on this screen. that can neither be close nor be minimized also generating an alarm sound at maximum volume. Volume up/ volume down button will disable until the alert activity get close by mentioning the password that was set during this start of installation of application. Background application will be accessed and the alert sound will be off only if the correct pin is given by the user as the input.

VI. SCREENSHOTS





VII. CONCLUSION

This paper shows the rough orientation of the phone describing the GPS performance, alarm sensor and emergency modules. The art of Android devices have updated benefits that focuses on accuracy, precision energy consumption and reliability. This application provides security to the device and the user in various scenario this application has proved the value of security in today's world.

REFERENCE

- [1] https://en.m.wikipedia.org/wiki/Motion_detection
- [2] https://en.wikipedia.org/wiki/Proximity_sensor
- [3] https://en.wikipedia.org/wiki/Battery_charger