IGuard

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Abstract: **To track every device via satellite longitude and latitude takes important roles in global positioning system. In proposed system we are going to use the inputs provided by application i.e. Latitude and longitude. Here we can track a mobile device with any operating system like android, ios with latest version with the help of proposed system. In this we will take the current latitude and longitude position values from Global positioning system by sending an sms to Mobile, so by which application get activated and will able to track the children location.**

Keywords: **Anti-theft, Smart phone, Android, GPS, SMS, Pin.**

1. Introduction

The technology is changing day by day rapidly due to which we are getting different features in our Mobile, Smart Phone, ipad, iphone, Tablet, Mini gadgets. We can do multiple activity simultaneously on Smart Phone as internal memory and process is increased as compare to earlier Mobile system. The use of Global Positioning system (GPS) increases in latest version of android in smart phone. Different application uses the GPS to send the current location of our devices. Parents can find out the child location using GPS system from children's Mobile. Also we can track children mobile location by their current longitude and latitude information sent from their Mobile GPS system.

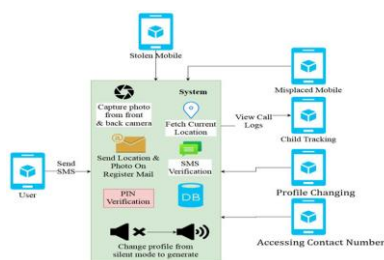## 2. System architecture / system overview

Fig. 1. Architecture of IGuard

User can use different features from iguard proposed system by installing, registering the application into their android mobile. User just need to install the application into mobile, then sign up process i.e. registration, after login successfully into application needs to set the secret pin and then can use the profiles like silent to general OR want to track mobile OR track children location and call logs. User needs to send an sms to target cell phone, once system verify SMS and match pin then system capture the front and back photo from mobile cell.

system also identify the battery status, If sim card changed in target mobile then system capture photo from front and back camera and send it to the email id which is to be registered into system.

A. Modules

Detection of stole mobile: We will get the current location and photos from mobile cameras of stole mobile to registered email address when user will send sms in predefined format with pin to mobile.

Changing Profile of misplaced Mobile: If the mobile on silent profile and misplaced then we can change its profile from Silent to General by sending sms to mobile in predefined format with pin.

Children Mobile tracker: Parents can track the children mobile by sending sms in predefined format along with pin to their mobiles. System will take current location with help of longitude and latitude from GPS.

Mobile Profile Changing: In this feature system can changed the profiles from Silent to General and vice versa according to current location.

Accessing the contacts numbers from remote Mobile: In this feature we can access our contact numbers from another mobile by using pin.

B. Project objective

If the mobile on silent profile in our house and user is not able to find it then using this proposed system, he can find out by only sending the sms to mobile. User can get the current location of mobile by only sending the sms with pin. User can get the pictures from surrounded area of lost or misplaced mobile by sending sms in predefined format with pin.

Parents can get the location of children's Mobile using this proposed system. User gets the location details if new sim card inserted into mobile. Depends on sensitive area profiles of mobile changed automatically. User can get the contact numbers from another smart phone.

C. Applications

1. To track mobile location with photo from front and back camera.
2. To get call log details of children mobile also mobile location.
3. To get location details when mobile battery is low.
4. To get location when SIM card exchange with new

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SIM card.

5. To change mobile SILENT mode to ringing mode

3. Software requirement specification

We can use windows 7 and above operating system in our project. We have done coding in JAVA Programming. Android 2.3 and above toolkit is used with Android Studio for IDE. In back –end for storing users details we have used SQLite and MySQL. Intel i3 processor and above system processors are used with 20 GB of hard disk. 15VGA color monitor is used for display.Total RAM of 4GB and above is required. And Android Cell Phone device is required to run our project.

4. Mathematical model

Let S be the Whole system which consists:

S= {IP, Pro, OP}.

Where,

    A. IP is the input of the system.

    B. Pro is the procedure applied to the system to process the given input.

    C. OP is the output of the system.

A. Input

IP = {LOC, SWP, BL, SCS}.

Where,

1. LOC is user current location.
2. SWP is SMS with PIN
3. BL is Battery level
4. SCS is SIM card status

B. Process

PRO= {FL, CP, CCB, CCS, CCSP, CM}

FL is fetch LOC

CP is capture photo from front and back camera

CCB is continuously check BL

CCS is continuously check SCS

CCSP is continuously check SWP

CM is change silent mode to ringing mode

ELP is mail location and photo on users register email id

FCL is fetch contact logs

C. Output

OP= {MFS, VCL, RM, MFB, MFS}

MFS is ELP for stolen mobile

VCL is view FCL

RM is mobile on ringing mode with the help of CM

MFB is ELP for BL

MFS is ELP for SCS

5. Project scope

We can track location in different condition, also can get the photos of surrounded area using this proposed system.
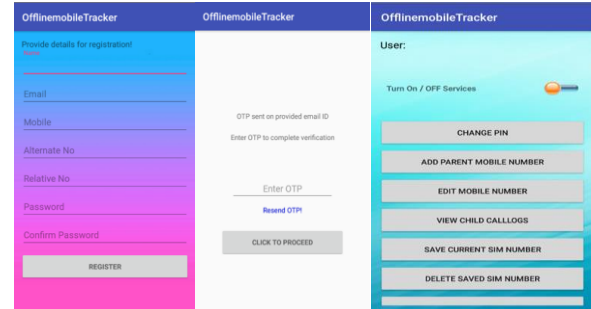
6. Application screenshot/result

Fig. 2. Registration page, OTP page, Home page

7. Conclusion

Proposed system is used as Mobile tracker in various conditions like stolen by theft or misplaced. Also this application provided strong security to smart phone to track the Misplaced mobile or children's mobile with their location and surrounded photos on registered email address. In future user can switch on the internet by only sending SMS in predefined format to mobile.

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