



# International Journal of Innovative Research in Computer and Communication Engineering

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## Anti-Theft Application for Android Smart-Phone

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**ABSTRACT:** This system is to enhance stolen or lost android based cell phones by utilizing diverse services like SMS and email. As the use of android mobile phone is expanding for internet banking, sparing some critical data documents and photographs. In the event that somebody steals our android mobile phone, he can abuse our financial balance and our own information, and it will be extremely unsafe for us. To keep this we set forward another plan, to get the cheat by his photograph, name and area. The situation proposed in this work is absolutely reliant on the equipment of your cell phone like camera (front) and GPS. When this product is introduced, it will work out of sight, stores the current SIM number in a variable and continues checking ceaselessly for SIM change, at whatever point SIM gets changed from portable, it will take photo of thief by front camera, trace the location and get the IMSI number of new SIM i.e., without taking user permission and after that it will send a SMS, to our alternate mobile number and an email id, which was given at the time of application instalment. The benefit of this application is that it is very easy to use, freely available and it continues running in background without interrupting the user. To some degree it helps the user to catch the thief, and get our stolen mobile back.

**KEYWORDS:** Android; Anti-theft; e-mail; sms.

### I. INTRODUCTION

. The most recent cell phones, for example, android based Smartphone, are changing as we experience our lives and have turned into an imperative piece of our life. Cell phones change the methods for correspondence not at all like settled line telephones, it can access our bank accounts, it gives favourable position of speaking with anybody essentially by video-conferencing, email, and so forth., and it likewise gives an office to save the contact and numbers, email, in smartphone which decreases the idea of File-System to save individual contacts.

Presently days, we are using Smart phones as like a PC, we transfer money to anyone through our mobiles, it can be utilized to store data, archives and so on, and can be imparted to anybody through web. These most recent cell phones are exceptionally useful for working together. Organization related data and reports can be seen anyplace and can be imparted to anybody. Nowadays android based mobiles telephones/gadgets are extremely prominent on the grounds that it gives a substantial num of utilities for hand-held gadgets by which it goes about like a PC in a our pocket. Due to its open nature an extensive num of utilities has created & android working framework is getting utilized as a part of many cell phones. In light of its little size, it can be stolen effectively and the private data of any association or individual points of interest put away in the smartphone can be effortlessly uncovered The given application advances a procedure using which the criminal, who takes any android based cell phone introduced with this application, gets caught and the client does not let the thief to abuse the private data.

The anti theft application incorporates the innovations as SMS (interactive media informing administration) and email using which one can send photographs of thief, current location of smartphone and IMSI number of thief SIM to any smartphone by text message and e mail. It provides the data of the cheat by sending the depictions and as shopping centre photo of the criminal to a substitute versatile number, which can help to perceive the cheat. Here we use GPS map to track the thief current location and send his latitude and longitude, and send to our alternate mobile number and email-id.

We can know thief name and address by IMEI number of thief SIM card and send it to our alternate mobile number and email-id. In this way it is very easy to catch the thief by his photo, location and name.

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## II. SYSTEM OVERVIEW

The point of the proposed framework is to begin the GPS administration to track the area, front camera to catch pictures and information association when it is insinuated by communicating something specific with the goal that it lessens the battery utilization and afterward the picture of a man is caught and send by means of Email. This application additionally empowers us to erase the classified information in the lost cell phone. With this application, your versatile is promptly empowering the application after accepting the predefined format message from the pre-enrolled portable numbers. At the point when SIM card on your telephone is changed, the area is naturally imparted to the server.

Fill The part of the client in this application is to set the mode as sheltered when he changes the SIM card and to send SMS to the Android Smart telephone having this application introduced in it, when it is stolen or lost. The linguistic structure of SMSs that can be set by the client and its functionalities are as per the following. [2]



Fig1. System Architecture

1. In the event that the SIM is changed, the reinforcement number gets the SMS points of interest of new SIM embedded.
2. On the off chance that SMS is of the configuration "Recognize", then the reinforcement number gets the GPS estimation of the lost cell as SMS.
3. On the off chance that telephone is switch on with another number means, consequently empower the camera to catch picture and send as Email to target number.
4. On the off chance that telephone is switch on by same SIM card implies, send SMS as empower application to empower the counter robbery application.
5. On the off chance that the got SMS contains the body as "organization", then the application erase the private information in the lost telephone, for example, contacts, call log, messages and SDcard.

## III. APPLICATION FEATURE

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is promptly empowering the application after accepting the predefined format message from the preregistered mobile numbers. At the point when SIM card on your telephone is changed, the area is naturally imparted to the server.

## A. Algorithm:

- Step 1- Begin of process.
- Step 2-Introduce the application. In the wake of introducing the application on the Smart telephone, it will be set to begin running in foundation each time the gadget working framework restarts.
- Step 3-Presently check if the sim is changed from old number to another number, with the goal that we can recognize the sim is flipped or not
- Step 4-On the off chance that sim is changed open the front camera of a portable and take a depiction, with the goal that we can take photograph of the individual who changed the sim card.
- Step 5-Track the area of a portable when sim get changed, so we can send area to the proprietor of a versatile, so it will be anything but difficult to get the criminal.
- Step 6. Presently send the area of versatile and photograph of hoodlum to the proprietors portable and mail id. Consequently it will be anything but difficult to get the portable criminal.

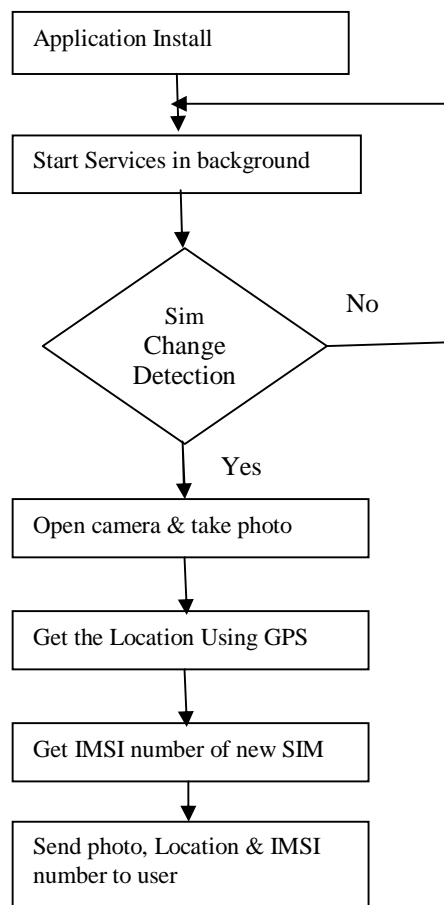


Fig 2. Activity Diagram

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The application introduced will keep running out of sight and won't be appeared in the errand chief too. Once the cell phone is lost, this application empowers the client to track a cell phone and to get notice through SMS to a predefined number.

Accordingly we can state that this application won't devour more memory and likewise it won't bother client unless portable got burglary. Just when somebody changes the sim of a portable that time just photograph and area of hoodlum will be sent to proprietors interchange versatile number and mail id too.

## IV. RESULT AND DISCUSSION

### A. How To Install this Application

As should be obvious in the fig.3, the user needs to run the program Application's .apk file and need to fill the required data i.e. username, password, mobile number and mail id in the textboxes as shown in fig 3. When it will be submitted, it gets stored in internal database of mobile. It begins running in background so it will not disturb or interrupt the user. This makes our application simple for clients who don't have much specialized learning of mobile.

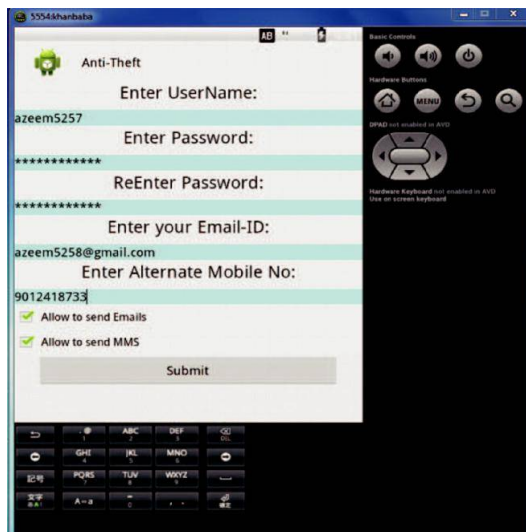


Fig.3 How to install the application

### B. How To Detect SIM Change

In this segment, we talk about how to distinguish the SIM change handle in android gadget with the assistance of this hostile to robbery application, which running in foundation consequently.

The TelephonyManager class uses to get to the data about the communication benefits on the cell phone. The gadget applications can utilize these strategies in this class to determine communication administrations and states, and additionally to get to a few sorts of supporter data.

In this way, on the off chance that you have to perform operations identified with the SIM (other than calling), then you ought to utilize `getSimSerialNumber()`. The SIM Serial Number is constantly extraordinary, substantial and it generally exists. We can utilize this technique to get the serial number of SIM in first space, String factors are utilized to store this serial number. Our application is contrast this string esteem and the principal SIM serial number for SIM change identification.

### C. How To Activate Camera

In this segment, we talk about how to operate the camera in our android phone without showing the preview of photo and snap consequently.

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To perform above operation, android SDK gives a system API which gives an in constructed use of camera where you can ask for a photo by an effectively front camera. To utilize camera gadget, as we specified, you need to pronounce camera consent in manifest file

As a matter of first importance, we ought to check for camera if it is accessible, and furthermore the front camera accessible . This should be possible by calling below given method

`PackageManager.hasSystemFeature()` and  
`Camera.getNumberOfCameras ()` respectively.

The android system gives Camera API and Camera Intent to catching pictures and recordings. Camera purpose is utilized straightforwardly i.e. without making camera protest. Camera goal is a quick approach to utilize camera application, it gives an aim activity sort to ask for a photo and a video cut from a camera

`MediaStore.Action_Image_capture`  
`MediaStore.Action_Video_capture`

After it wraps up a photo it call on `ActivityResultMethod ()` in which the information gets put away in the memory card. The media records ought to be spared in outside capacity to spare inside memory, to get the area of shared index.

`Environment.getExternalStoragePublicDirectory(Environment.DIRECTORY_PICTURES)`.

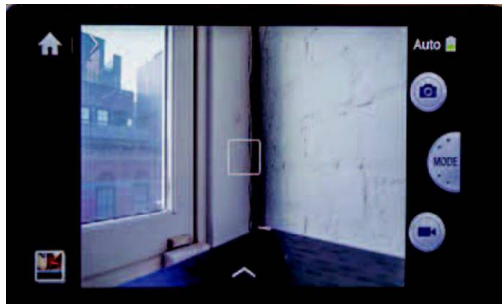


Fig 4. Preview of camera

## D. How To Send SMS & E-mail

As said above, to utilize SIM benefits in an application we needs to take consent by pronouncing in show document. SMS is a http-post ask for, one need to demand some additional system highlight to send a SMS. SMS utilizes private API's which is not available in android SDK. We need approach to send a SMS is to utilize Android GIT stores which gives interior bundles to send SMS including the captured picture as shown in fig. 5.

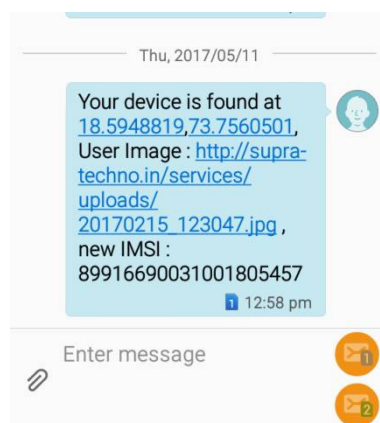


Fig. 5 SMS containing location and image of thief



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To send an email you need to set authorization for web benefits in show document to open a system attachment for an application.

In order to send an email without client collaboration one can utilize numerous private APIs resembles we gave by E-mail.

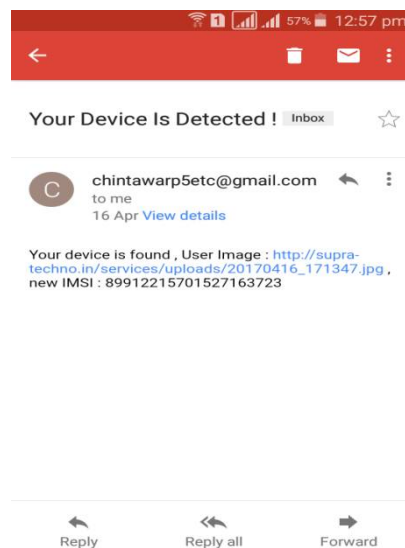


Fig 6. E-mail containing location and image of Thief

In given anti theft application we utilize three container documents mail.jar, activation.jar, additional.jar which gives bundles by which we can send an email naturally with photos. After this operation we get an e mail containing link of image of thief, current location of our android phone and the IMSI number of thief's SIM as shown in fig. 6.

## V. CONCLUSION AND FUTURE WORK

This system presents a anti-theft application for android based devices. The application provides security solution that meets users immediate and long term requirements by providing the images and location of the thief, by using this it will be easy for user to recognize the phone thief and make him get caught and arrested. We are enhancing this application by providing the current location of our android based smartphone and the IMSI number of thief new SIM card, with the help of text messages as well as e-mail. In future, the technology is evolving every day. Our application will further be developed with some more feature and improved. Currently this application is available for android based mobile phones. Future work we have to do is the development of the anti theft application for operating system like iOS, Windows Mobile OS etc.

## REFERENCES

1. Mohammad Naved Qureshi, Azeem Ush Shan Khan, Mohammed Abdul Qadeer. "Anti-Theft Application for Android Based Devices." International Advance Computing Conference (IACC), 2014 International Conference on, pp. 365-369. IEEE, 2014
2. Arvind Kumar Shah, Sohini Rou, Uma Bhattacharya "Touch and Track: Anti theft and Data Protection Technique for Android Smartphone", Springer Nature 2016.
3. Shashank Jain, Chandra, Ankur, and Mohammed Abdul Qadeer. "GPS Locator: An Application for Location Tracking and Sharing Using GPS for Java Enabled Handhelds." In Computational Intelligence and Communication Networks (CICN), 2014 International Conference on, pp. 406-410. IEEE, 2014.
4. Sandeep, Kumar, Mohammed Abdul Qadeer, and Archana Gupta. "Location based services using android." In IMSAA'09: Proceedings of the 3rd IEEE International Conference on Internet Multimedia Services Architecture and Applications, pp. 335-339. 2014.
5. Google Developer, <http://developer.android.com>, last accessed on Sep 20, 2016.
6. Abdullah Mohammad, Ansari, Md Nehal, and Mohammed Abdul Qadeer. "SIP-based Interactive Voice Response System using FreeSwitch EPBX." In *Wireless and Optical Communications Networks (WOCN), 2013 Tenth International Conference on*, pp. 1-5. IEEE, 2013.