

# CHILD TRACKING SYSTEM

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## ABSTRACT

Today, technology is growing rapidly and providing all essential and effective solutions for every requirement. Now a days child security is an important area of concern. This model is being developed to rectify the worries of parents regarding their child security. It will proposed, Our system ensures maximum security and ensures live tracking for their kids because parent worries are genuine. it will proposed a model for child safety through smart phones that provides the option to track the location of their children as well as in case of emergency children is able to send a quick message and its current location via Short Message services. This proposed system is validated by testing on the Android platform. Also Mobile tracking system is used to monitor vehicles position and in special cases there are much useful information can be monitored such as speed, cabin temperature and number of passenger. This monitoring process is done using vehicle's position data from satellite through GPS device, and sending the data to a server through GSM modem.

**Keyword:** - Global Positioning System Geo-fencing,, Short messaging service. Child Tracking.

## 1. INTRODUCTION

These Days parents are worried about their children's so they want a complete track of them and monitor them all the time, This is physically not possible so we introduce Safety Monitoring system which is helpful for monitoring or tracking the child and their activities from anywhere in the world. The major issue of child missing can be solved with the help of child tracking system as well as parents who need to keep a track of their every steps, this system plays a vital role. The android application uses GPS and telephony services to locate their child's location. This application secretly retrieves all the Call Logs, Message Details, Contact list and accurate Location without the childrens permission or without their knowledge as this application runs is in background and the major advantage of this feature is, if child reboots the Mobile phone the background process starts as the reboot is complete, so the process is never ending. This application sends all the data from the childs device to the server and from the server to the parents phone in every 10 minutes interval. Where the child can only see a calculator while the data is been fetched in the background without childs knowledge. By the study of missing kids in 2004, There are of aggregate 5996 Child are absent, Out of these exclusive 4092 kids found by police. However 1904 youngsters are missed. Today GPS has an extensive variety of uses including following bundle conveyance, versatile business, and crisis reaction. GPS comprises of a system of 24 satellites in 6 distinctive 12-hour orbital ways dispersed so that no less than five are in perspective from each point on the globe. Short Messaging Service (SMS) is a component accessible on all cellular telephones which permits a little content to be sent between one client and another. In this following framework specific zone will be characterized by utilizing geo-fencing. In view of this if kid is captured or he/she is moved outside of characterize zone then ready message will be sent to separate parent or guardian's enrolled number. So guardians don't need to do ceaseless observing of tyke development, framework will alarm the guardians if youngster is moved outside of bound range.

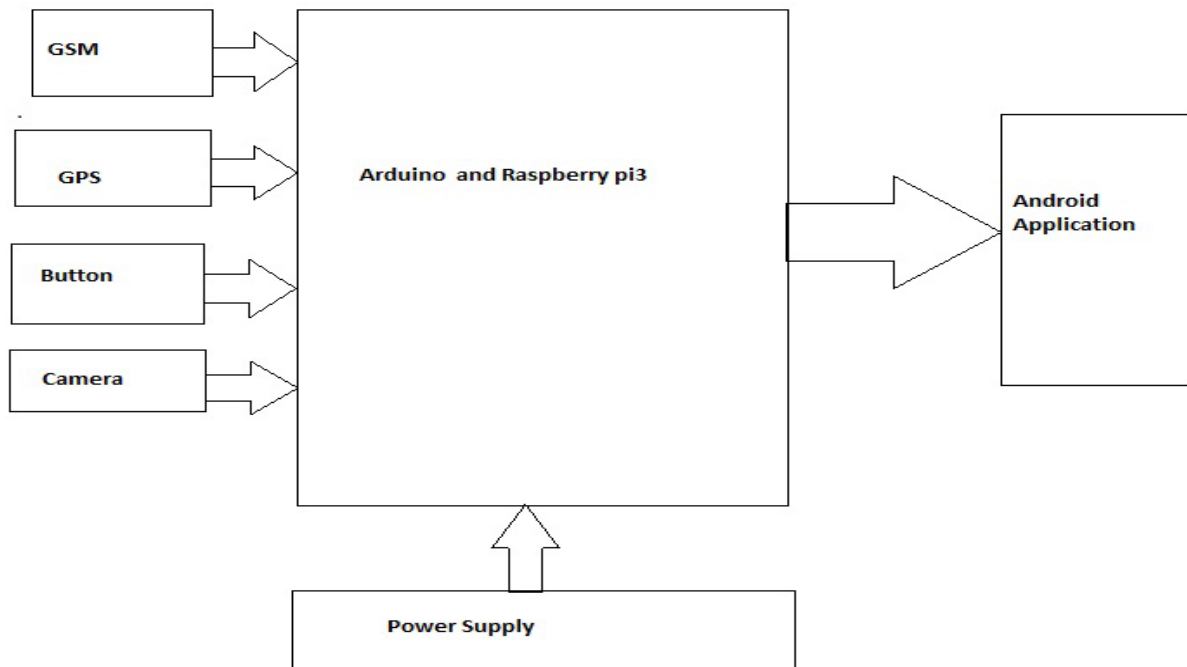
## 1.1 GOAL OF SYSTEM

The primary Goal of this project is to create a system which can monitor a child location. This Model being developed to rectify the worries of parents regarding their child security. Our system Ensures maximum security and ensures live tracking for their child because parent Worries about Child Safety.it will proposed a model for child safety through smart phones that provides the Option to track the location of their children as well as in case of emergency children is able to send a quick message and its current location via Short Message services. This proposed system is validated by testing on the Android platform. Also Mobile tracking system is used to monitor using position data from satellite through GPS device, and sending the data to a server. In can be used in various areas for example in Vehicle tracking, Pet Animal tracking, Tourist tracking and Military Application and other places.

## 1.2 SCOPE

Thus from the goal of project, scope can be described as detailed study of widely used child tracking system using GPS. Analysis of their efficiency and usability for outdoor application of Such application although project focuses on development of efficient methods model of child tracking system s can be use for common people . However application of these proposed system not limited for above mentioned application but can be used for application like military application, vehicles tracking, Pet animal tracking and tourist tracking achieved using aurdino and rasperry pi3. These features proposed systems are currently out of the scope of projects. But more applications for child tracking system devices and appliances can be considered as future scope of project. This system can also be used in sensitive areas of work like mines. But more applications of this system for devices and appliances can be considered as future scope of project further advancements

## 2. BLOCK DIAGRAM OF SYSTEM



**Fig -1** Block diagram

This section describes the conceptual design of children (Fig. 1). The children information is transmitted and received using GSM technology. The child module acts as a transmitter which includes Arduino and Raspberry pi3, GSM module, GPS module and voice chip as well as android mobile phone. The receiver module includes Android mobile phone and monitoring database. The position of the moving child is tracked by is tracked by GPS and is sent to Arduino microcontroller. This controller forwards the GPS data (latitude and longitude) to GSM board. GSM will in turn send the position of the moving child to two receivers. It allows the parent to get their child's location.

### 3. ANDROID APPLICATION

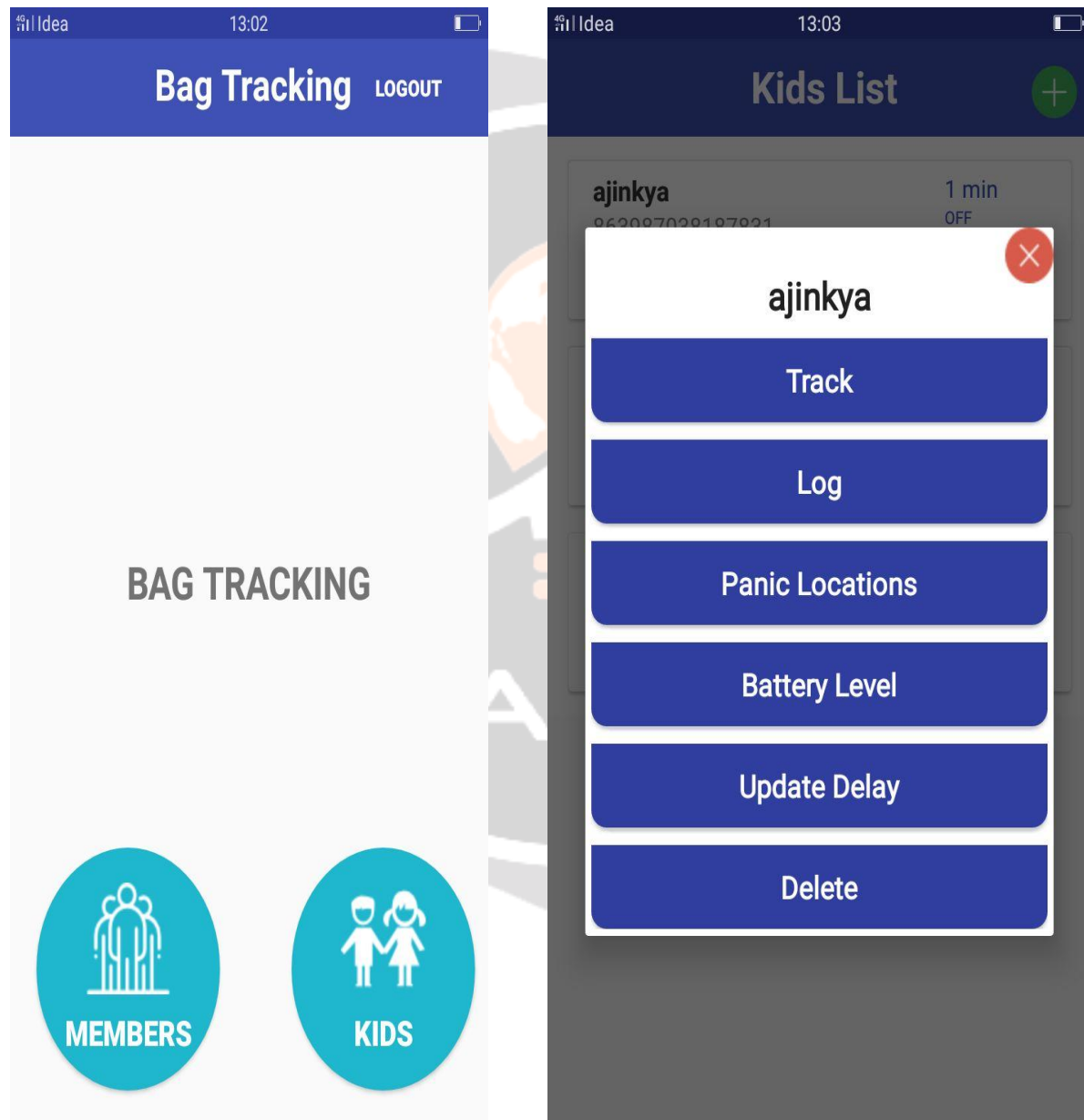


Fig -2 Android Application

Fig 2 shows the android application of Child tracking system. This app includes the features like Track the child location, log of past location information of child. Panic locations this based on geo-fencing Techniques. Battery level of child device and updates the information after regular interval of time. This app includes the two selections Add members and kids we can add number of admin to list and child list.

### 3.1 EXPERIMENTAL RESULT

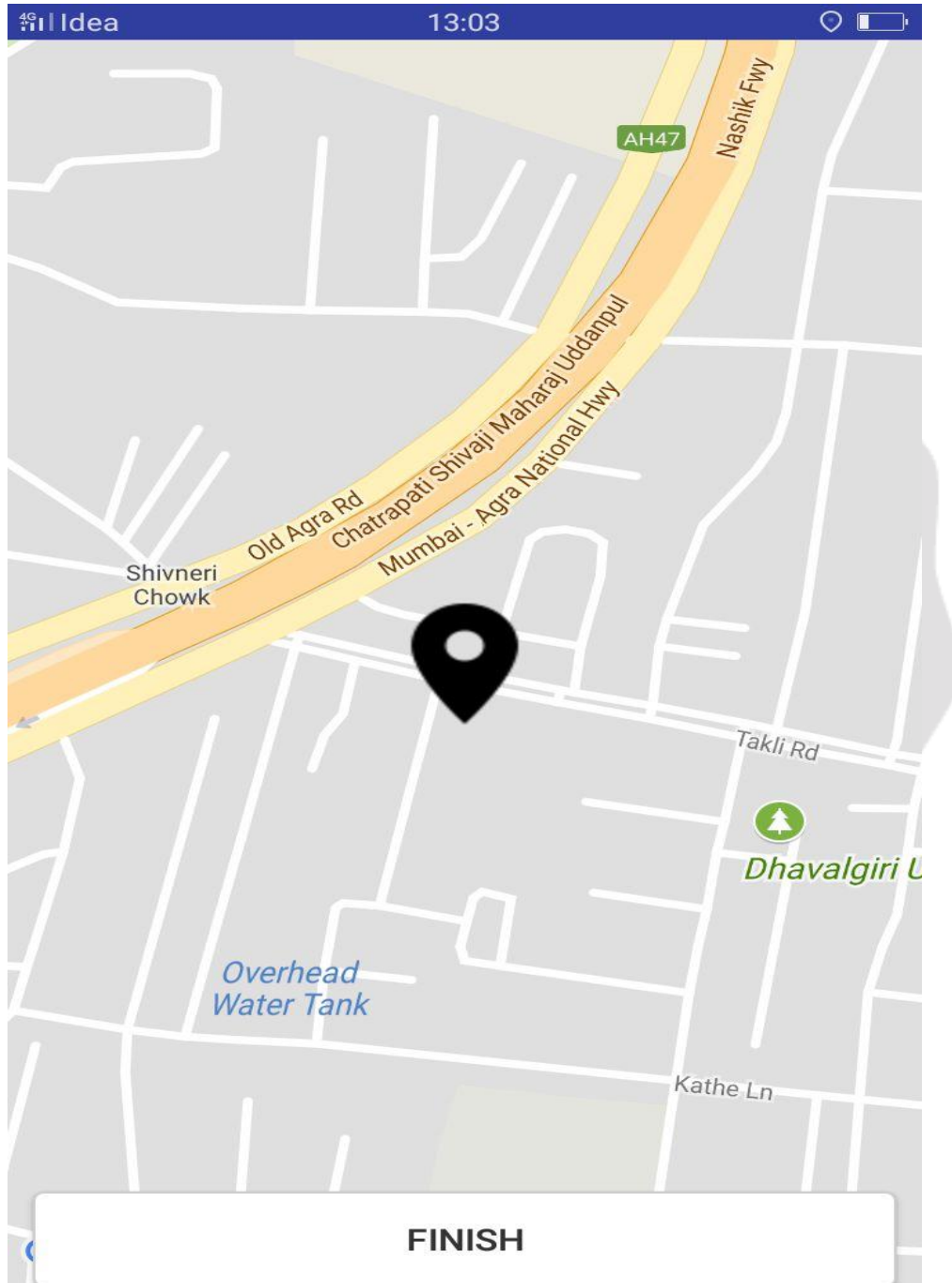
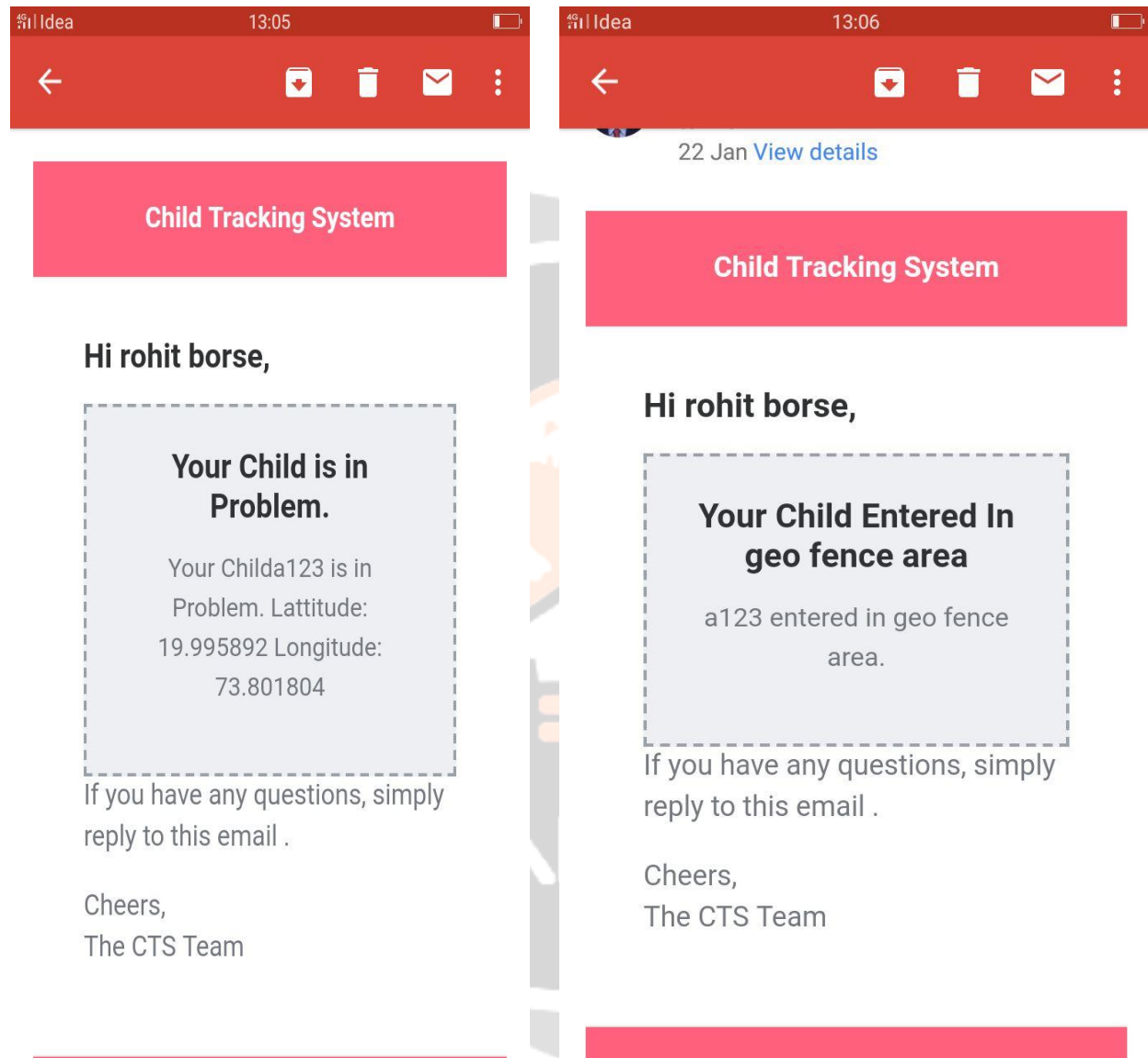


Fig-2 Map view of Child in Parent Side

Above figure shows Google MAP output obtained at the receiving end (parent android mobile device). It shows the pointer indicating the current location (place of the missed child).

### 3.2 RESULT



**Fig-3 Message to parent of child location**

### 4. CONCLUSIONS

The project was designed for locating missing or lost children. This project gave depth information about child tracking system with the help of two components such as GPS and GSM telephony services the application is built in. Finally for this application has room for enhancement. Geo-fencing , Emergency alerts such features can be added to enhance system. The proposed system can be improved in later work.

## 5. ACKNOWLEDGEMENT

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