



# TRACKING AND MONITORING LOCATION FOR WOMENS SAFETY PROGRESS

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**ABSTRACT-**Women Safety application is the best platform to inform and update your close ones if you are in an unsafe place. The app is the fastest and easiest way to update your close ones about your location and other details. With just a shake of a mobile, the app sends a SMS to a preconfigured number along with your location and a link to Google Map. Alert emergency contacts with one shake of your phone even when locked and in screen off. Shake Alert will send an SMS to your selected emergency contacts with your current location. The application uses the accelerometric sensor which is used to detect the tilting motion of a phone. We design and implement a high-accuracy global positioning solution based on GPS and human mobility captured by mobile phones. Our key observation is that Smartphone-enabled with dead reckoning supports accurate but local coordinates of users' trajectories, while GPS provides global but inconsistent coordinates. Our aim is to develop an efficient and improved geographical asset tracking.

## I.INTRODUCTION

Women are adept at mobilizing diverse groups for a frequent cost. They often work across racial, scared, opinionated, and intellectual divides to encourage serenity. We are all very cautious of importance of women's security, but we must accept that they should be well secluded. Women's are not physically powerful as compare to men, in crisis situations a helping hand would be a relief for them. The best way to reduce your chances of becoming a victim of violent crime (Robbery, Sexual harassment, Domestic violence) is to detect and call on resources to help you out of unsafe situations. Whether you are in instant trouble or get separated from friends during a night out and don't know how to get home, having this application on your phone can diminish your risk

and bring assistants when you require it. Although several were formerly developed for students to reduce the risk of physical attack on campus, they are also suitable for all women. The existing system is developed on the basis of Android Platform.

## II.PROBLEM STATEMENT

The main objective of this System Analysis is to create the brief analysis task and also to establish complete information about the concept, behavior and other constraints such as performance measure and for system optimization. The main aim of System Analysis is to completely specify the technical details for the main concept in a concise and unambiguous manner.

## III.OBJECTIVE

Explore and contextualize local women's experiences and perspectives within their particular context. Describe and analyze women's accounts of their involvement & roles in violence prevention, safety promotion and peace building activities. Examine the meanings women attribute. Voice and visibility to local women's leadership and agency. Case example: volunteer group involved in safety promotion/violence prevention programmer. Contribution to development of gendered, contextualized and culturally sensitive approach.

## IV. LITRATURE SURVEY

**[Article 1]:**In a time of economic crisis, companies in all economic sectors should



reevaluatetheirstrategiestoachievethe necessary market success. Recent studies show that the potential customers would rather spend their earnings on domestic equipment and electronic devices like laptops and mobile phones, than on vacations. This behavior generates huge losses for the travel industry and tourism. The potential solution for that problem is to connect the mobile industry with the travel and tourism in away that will insist customers to travel more and enjoy the time by using interactive and helpful content. One of the things the Internet has brought the outstanding multimedia and user interaction, which encourage users to experience almost anything from the comfort of their home. In this paper we discuss the possibility of mobile device integration in the vacation and tourism industry and its impact on potential customer groups. At the end of paper, a conceptual model of mobile services integration in the current travel and tourism industry is presented.

**[Article 2]:** This article presents the fastest GPS locking algorithm to date. This algorithm reduces the locking complexity to  $O(n)$ . Further, if the SNR is above a threshold, the algorithm becomes linear, i.e.,  $O(n)$ . This algorithm builds on recent developments in the growing area of sparse recovery. It exploits the sparse nature of the synchronization problem, where only the correct arrangement between the received GPS signal and the satellite code causes their cross-correlation to spike. We further show that the theoretical gain translates into empirical gains for GPS receivers.

**[Article 3]:** Examination of GPS availability is implemented using the nominal GPS constellation. This includes assessing availability as a function of mask angle and number of failed satellites. To enhance the quality providing position, velocity, and timing information, GPS needs to provide timely warnings to users when the system should not be used. This capability is known as integrity. Sources of integrity anomalies are established, followed by a discussion of integrity enhancement techniques including receiver consistency checks, such as receiver autonomous integrity monitoring (RAIM) and fault detection and exclusion (FDE), as well as SBAS and GBAS.

**[Article 4]:** In many CPS, sensed data will only be useful with the location information. Therefore, the localization of sensor nodes is essentially important for implementation of WSNs. Many localization schemes have been introduced, which can be divided into range-based and range-free. Due

to the big difference between indoor and outdoor environment, schemes designed for indoor or outdoor localization are relatively different. Only indoor environment is considered in the scope of this paper

**[Article 5]:** An important tool for evaluating the health of patients who suffer from mobility-affecting chronic diseases such as MS, Parkinson's, and Muscular Dystrophy is assessment of how much the user walk. Ambulation is a mobility monitoring system that uses Android and Nokia N95 phones will automatically detect the user's mobility mode. The user's only need interaction with the phone is turning it on and keeping it with him/her throughout the day, with the intention that it could be used as his/her everyday mobile phone for voice, data, and other applications, while this app runs in the background. The mobile phone uploads the collected mobility and position information to a server and a secure, intuitive web-based visualization of the data is available to the user or caregivers whom they authorize, allowing them to identify in their mobility and measure progress over time and in response to varying treatments. [3] discussed about a system, GSM based AMR has low infrastructure cost and it reduces man power. The system is fully automatic, hence the probability of error is reduced. The data is highly secured and it not only solve the problem of traditional meter reading system but also provides additional features such as power disconnection, reconnection and the concept of power management.

## V. PROPOSED SYSTEM

Information from the accelerometer is evaluated with several threshold based algorithms and position data to determine. The threshold is adaptive based on user provided parameters. This algorithm adapts to unique movements that a phone experiences as against to similar systems which require users to mount accelerometers to their chest or trunk. It is very powerful software especially developed for the safety of girls, when somebody is in trouble they don't have to find contacts or find ways to send short message service. Our system provides a realizable, cost effective solution to detection using a simple graphical interface while not overwhelming the user with uncomfortable sensors.



## VI. ARCHITECTURE DIAGRAM



**Fig.1. Architecture of Women's Security System**

## VII. MODULES

### 1. Monitoring and Alerting about SMS

In this system, the Parent can monitor their Child cell phone by receiving SMS alerts from the Child android based mobile device. In this it additionally sends the information about the persons who is in danger and the alert will send to the concerned persons. Here the Parents or concerned person can have details about the alert in order to take necessary steps to avoid the child unnecessary act.

### 2. Monitoring and alerting about current location of the Women (Through GPS)

In this module we are specially designed to track the current location of Women through GPS. So that the Parent can also monitor the Child where Ever they are and also the current position they are available. Here it gives timely update to their Women current location as an SMS alert to their Parent mobile.

### 3. Maintaining the details in the centralized server

In this module we are specially designed to track the current location of Women through GPS. So that the Parents can also monitor the child where ever they are and also the current position they are available. Here it gives timely update to their Women current location as an SMS alert to their Parent mobile.

### 4. Fixed Interval Algorithm:

The fixed interval algorithm is extracted from a GPS functionality that is commonly used. As the name indicates, the algorithm sends specific data to the database server after every fixed interval of time, i.e., it uses one variable to keep finding of the time

change in the mobile asset and relates it with frequency. It knows at what time the last point was reported and when the next point will be sent.

## 5. Radius Algorithm

This algorithm is mainly related with the distance between the tracked points, it deals with points that are within a specified radius from the device. It keeps track of the last location data and reported to the database server and the distance between the last and the current location. Only if the value of the calculated distance is more than a certain predefined distance, the device sends the current place to the server. Along with the radius variable it also involves the fixed time interval, using which it checks the frequency to send the data.

## VIII. IMPLEMENTATION

### 1. ENTERING THE PROFILE DETAIL:

User has to enter the profile name and upload their photo.



### 2. ALERT MESSAGE:

Women has to enter the alert message as per her wish, it can be modified frequently. Message should be in the format of intimating danger.





### 3. ADDING CONTACTS DETAILS:

User has to enter the contact number which she wants to send the alert message



### IX.CONCLUSION

Women safety is problem increased rapidly in this environment, so I implemented as an effective Android application to prevent such type of the suspicious or natural disaster, by alerting the concern authorities using the android smart phone which helps to stop such type of illegal activates and to trace the concern. In this , a low cost women tracking system using GPS and GPRS of GSM network, applicable for wide range of applications all over the world. Both GPS and GPRS provides continuous and real time tracking. The cost is much lower compared to SMS based tracking systems. Free Google map and HTTP protocol as data sending method reduces the monthly bundle cost for the individual user and also for the small business owner. It is required that the full execution of the proposed system would

ultimately replace the traditional and costly SMS based tracking systems.

### X.FUTURE ENHANCEMENT

This application is helpful in future when there is any problem arises in travelling or any kind of situations. As the technology evolve, it is possible to upgrade the system and can be flexible to attired environment. Because it is implemented on object-oriented design, any further changes can be easily adaptable. Based on the future security problems, security can be improved using emerging technologies.

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