

Women Welfare Safety and Prevention System

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Abstract

In a recent time, the performance of hitting and inhumanity against women increasing at an unpredictable rate. It is an essential thing for females to travel from some place to another place at late night and visiting distance places and obscure places as a segment of their work. Anyways, the rapid increase in hitting the women safety and criticizing the women in the last few decades constitutes a menacing to the extension and evaluation of female. Protection is the only issue that can adequate to against this expanding abuse. A women safety and security mobile application that develops a secure feeling between female required to be plan need to heart beat sensor for auto sense are deployed at the wrist sensing . A requirement of basic safety resolution that can be done in a simple method, when the women touches the button, then immediately the Sms alert will send to the guardian which is the contact that is already stored in the mobile application. In this paper we intend to design and implementation such a system.

Keywords: Heart beat sensor, Mobile application, Protection, Sms alert, Women safety

1. Introduction

In today's generation, the present world scenario, the main query in every woman's thought is the safety and security[1]. Taking into the consideration, the rapidly increasing problems on women harassment in the presentsituation is mostly about woman's protection [2-4]. We proposed an innovative idea which is used to moderates everyone's thought about the women safety[6]. We are knowledgeable of women's safety and security, but we should identify that they must be well safe. A woman is not having more strength while compared to the men in a physical state, [5]basically in a tough situation they need a person to help them and to relieve from the problem. The nice path to low the chances of occurring a victim in crimes such an acid, robbery, sexual harassment case is to recognize and call the sources to assist in violent situations[8]. When a women in some danger or else they got stay away from their family and friends and when that women didn't knows how to goto home the android application which is specially developed for women will use in those dangerous situations, [10] here the risk factor is reduced, because the assistance is used to help the women to reach their home safely. We are proposing a new design in the android application which will be deeply explain in the proposed methodology.

In today's world the android device is the most largely used OS[1]. This is the first flattering stage which is strong and also anticipatesacquiring more demands.The currentsystem is developed on the android application. Android used a traditional virtual

machine that was originates to improve the memory and the hardware sources in a memory system[7]. The smart phone usage was increasing rapidly day by day and also smart phone can used for safety and security system, and for protection purpose also.

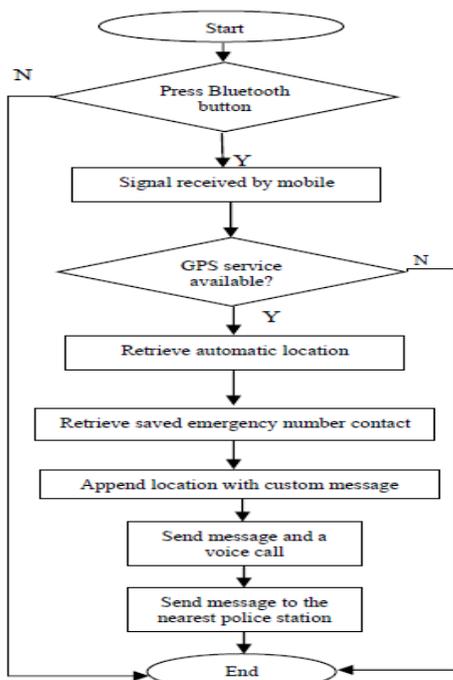
2. Problem Definition

The app will only send a SMS to a predefined phone number or send URL if they are in online. Map is notintegrated. If application is off in the receiver side, recipient cannot access the user's location. In existing embedded based band GPS sensor only integrated.

3. Existing Methodology

From the previous years, the safetyfor women in India has been going through lot of problems. A women needs to work a lot for their family to support and survive. So many women's are working in different kind of industries like BPO, KPO, hospitals, and many more industries etc. After this change also, the women's are challenging many problems in their daily life. Many times they are becoming the victims of violent offences. Daily job going women will face many problems in their daily life; at some critical situation they even can't give a call to the police. In such cases, this system will help the women to escape from the attacks by informing about the attack and giving their exact location to take mandatory action. Women will be safe with a device that involves Shock generator. By touching the specific button, the message will be transmitted to the

closest police station and then the police can inform the information to their relatives.



In a recent time, the count of appearances of situations oriented towomen harassment has developed with more number of enlarging range. For women’s there is no safety in outside especially in the night time. After examining all the outcomes, the best solution is found out for the women safety without depending others at that dangerous situation.

In this android mobile application, when the start button is thumb two times the message which is asked for help will be sent with the location to the contacts which is stored in the mobile phones. Also the sent details will be modernizes for every two minutes. More number of women’s is working in an IT sector even in night shifts. At this point there is ainsecurity feeling in-between the working women.The biggest challenge in today’ life is safety and security measures, so that the women need to carry the small gadget in their hand, which is used to help in the critical situations. At the same point, whenever the women pressed the button in the device, the controller will produce the signal to the shock generator. It is a personal and safety application to keep and your friends safe. Also it emerges with characteristics for dual purpose which is used in daily life and in emergency case, to make it ultimate tool we added more features. This is user-friendly android mobile application that can be used by everyone and installation is very easy.Shock generator will receive the outcome, so we will receive the shock pulses so that theperson who are going to attack can give a shock to that attacker. Shock generator is driven through isolated circuit. Isolating circuit will provide isolation intoARM controller and the generator to safe the ARM.The details about the place, path will be transferred to the GPS receivers using microwave signals.

4. Proposed Methodology

Our main motive is to produce the quickest and simplest way to contact the nearest person to safe from threatening.

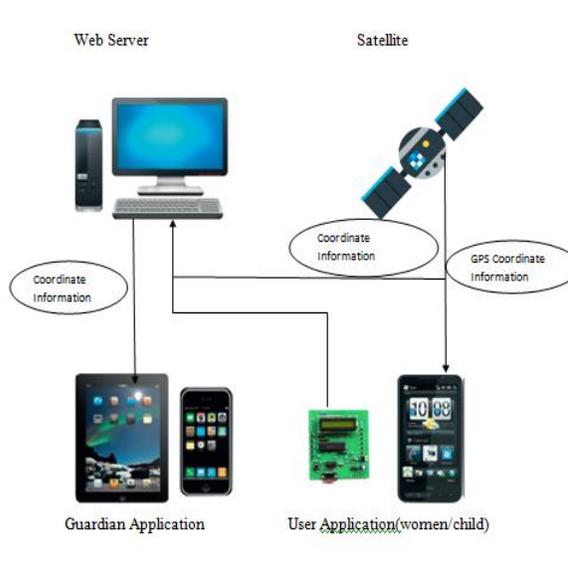
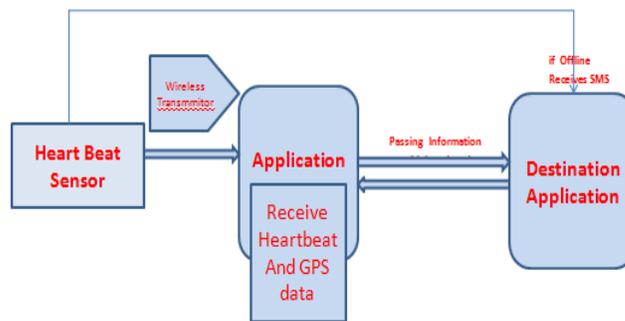


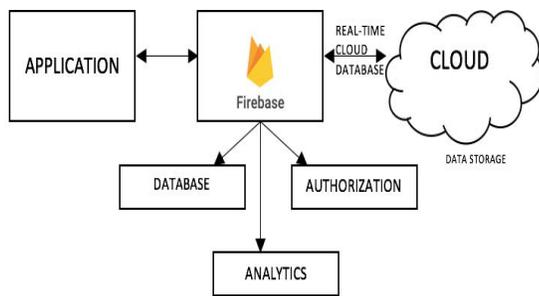
Fig 1: System Architecture

The user is login into the app when the authentication verification is successfully done with the help of Firebase then the user enters the personal details and emergency contact’s phone numbers into the database.Users are registered with the Firebase Database and those details are used for authenticating the user login authentication to keep the app secure and safe from misuse.If the application is off.



Then the receiver can receive the information from the user by SMS.By the usage of heart beat sensor user can able to send SMS even user in offline(if mobile switch off).

We proposed a new method to safe women from dangerous situation i.e., When the women in caught by a attacker, she can’t open up a lock and call someone and answer so that here we proposing a technique is, we she shakes her mobile the alarm will send a alert message to the contacts that is stored by a mobile user. After the alarm rings the location will send along with emergency message, latitude and longitude to the person which is the contact saved in the database, so that the accurate location of the women can find out easily.We can easily protect the person from the dangerous situation easily and quickly. Also we implemented another method for a women’s safety. The heartbeat sensor is utilized to sense the person’s heartbeat range. Normally for the person the heartbeat ranges from 65 to 72. If the heartbeat varies from below or above, we can guess that the women is in dangerous situations. So only this method is easy to find whether the women are in a danger or not. Here the diagram with firebase is shown below



By using this application, the firebase is used here to store the database in the cloud so that we can fetch the data from anytime, anywhere by using authentication.

By authenticating only we can access the database next time. Also our data will store in a secure way no fraud detection will happen. This is the safety method to store and recover from the database.

4.1. Heartbeat Sensor:

A heart beat rate is monitored by using personal monitoring device which permits one to calculate his or her heart rate in actual time or store the heart beat rate to retrieve. It is widely used by performers of various types of physical exercise.



4.2. Applications

1. Has become a largely used training aid for a different types of sports.
2. Hospitals dispensaries best and correct method of calculating heart beat.
3. at homes
4. A set point is used to decide whether a person is healthful or not analyzing his/her heart beat and comparing with set point.

5. Conclusion

In this paper is 2 use to developed an application to help in addressing the intruders and molestations of women. This kind of an app is required because of the society we live in where offence against women is becoming more and tougher to curb. The application can only help in a small way in assuring women safety by which they feel safe & secure because they know for a fact that they are being monitored by their family. Ultimately the safety of all the women is assured only when the society and the environment

communities pay heed to such offences and educate the people by spread awareness.

6. Future Enhancement

In future we can develop it as a default application in android mobile phone and android watches with heartbeat sensor based real time applications. And we can track the user move using this application

References:

- [1] Dantu Sai Prashanth, Gautam Patel, Dr. B. Bharathi "Research and development of a mobile based women safety application with real-time database and data-stream network" [ICCPCT] 2017
- [2] Abhijit Paradkar and Deepak Sharma, "All in one Intelligent Safety System for Women Security", International Journal of Computer Applications (0975-8887) Volume 130-No.11 November 2015.
- [3] Toney, G.; Jabeen, F.; Puneeth, S., "Design and Implementation of Safety Armband for Women and Children using ARM7", International Conference on Power and Advanced Control Engineering (ICPACE), 2015, pp. 300-303
- [4] Vamil B. Sangoi, "Smart security solutions," International Journal of Current Engineering and Technology, Vol.4, No.5, Oct-2014.
- [5] Lee, S., and K. Mase. "Activity and location recognition using wearable sensors. IEEE Pervasive Computing 24-32. (2002) Witten, I., and Frank, E. Data Mining: Practical Machine Learning Tools and Techniques with Java Implementations. Morgan Kaufman (1999)
- [6] Bahl .P, Padmanabhan V.N, "RADAR: An In-Building RF-based User Location and Tracking System", Conference on Computer Communications. Nineteenth Annual Joint Conference of the IEEE Computer and Communications Societies, Vol. 2, pp. 775 - 784, 2000
- [7] U. Thakur, P. Rahangdale, D. Mendhe, D. Umate, and T. Bhagat, "Girl safety," International Journal of Engineering Science, vol. 4708, 2017.
- [8] Asaad, Majeed Nadar. "Performance of Differential GPS Based on a Real Time Algorithm Using SMS Services of GSM Network", IEEE, April 2012.
- [9] Bramarambika Thota and Udaya Kanchana Kumar. "An android application for women safety. International Journal Of Technology Enhancements And Emerging Engineering Research, 3: 5:122-126, 2015
- [10] Ashlesha Wankhede, Ashwini velankar, Priyanka Shinde "PORTABLE DEVICE FOR WOMEN SECURITY". IJRET, eISSN:2319-1163 p ISSN:2321-7308
- [11] Prof. Basavraj Chougula, Archana Naik, Monika Mono, Priya Patil, Priyanka Das "SMART GIRLS SECURITY SYSTEM", IJAIEEM, ISSN 2319-4847, Volume 3, Issue 4, April 2014