

Women Security System with Advance Features

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Abstract— In today's world women's are less secure, they are facing more number of situations like kidnapping, rape case, & abuse. Because of this reasons women's can't step out of their house. The most important question in every Woman's mind that consider the ever rising increase of issues on women harassment in recent past, is only about her safety and security. Many question come across when we think about women security, questions like when they will be able to move freely on the streets even in odd hours without worrying about their security. When such incident happens with women's they will not feel insecure or helpless if they have some kind of device with them. With the help of these devices girls & women's can stay out without any fear at any time there are many existing apps and devices for women security via smart phones. Though the smart phones have increased rapidly, it is not possible to have the phone all the time in our hand to make a call or click on it, so here we introduced a new technique via smart watches. GPS/GSM it will detect the nearby police station and make a ring there so it will be helpful for police to arrive soon at the spot by tracking the GPS, such a system will lead to safer and better environment.
Key words: Security, GPS, Women, Audio-Video Recording, Wi-Fi, Bluetooth, Smart Phone

I. INTRODUCTION

Growing up in world is very challenging if you are a woman. We see anywhere women security is big problem now a days .Including to this there is a negative aspect of women safety and position .The women play's multiple roles in a whole life. She is a mother, a sister, a daughter, a young girl, a small girl, are getting harassed, molested, violated at various places all over the country. The self-defense is very important for women against crime happening with them. The women must carry some tools with her for their self-defense like a safety mobile apps are available, wearable devices used for security.

Basic Principle used for security system is prevention and communication by using GSM and GPS technology. Prevention from kidnapping, Molestation are very important than the wireless communication. Project focuses on Communication through wireless, Prevention of Incident. To prevent above mentioned incidents different techniques are being used such as automatic shocking, spray model system, alarm etc. The message(SMS) information, audio information , video information can be sent to many people like Family Members , Cops and Doctor it sorted important information will be sent to the concern people i.e. doctor will have information of medical help, police will have information of legal help of that incident and family members will have information of their daughter / wife / mother. GPS technology is mainly responsible for location tracking of that person & with the help of GSM technology & coded signal will be transmitted in the form of message, picture, voice information to the required destinations. Nearest cops control room, nearest medical facility room, family members. GPS receiver provides velocity, time

accuracy performances, high position as well as high sensitivity and tracking capabilities.

II. LITERATURE SURVEY

We have referred following papers to get an idea about the domain. So, the knowledge we have extracted is:

- 1) In this paper the present sensor detect the heart beat rate of the person which will become high at moment by the secretion of epinephrine hormone from hpa axis and get activated. Which provide an alarm sound to get the attention of nearby people it will automatically make an call to registered contact numbers and also through GPS detect nearby police station.[1]
- 2) This proposed paper gives the information about to identify the attacker in critical condition using the combination of speech processing, image processing and video recording and saving. The target of this system is to identify the occurrence of unknown crime using voice and video processing in order to generate alert at local public place. By using the image processing many CCTV videos from the neighboring areas. [2]
- 3) In this paper the implemented system includes basically reference station which consist of personal computer with GPS receiver and GSM modem and mobile station also consist of GPS receiver and GSM modem connected with personal computer. Differential data generated in the emergency situation is received by GSM modem and compare with the GPS reading from attacker location to determine the exact position of attacker.[3]
- 4) In this paper real time implementation is achieved by using GSM modem for SMS (short message service notification followed by email notification for recording data.[4]

III. PROPOSED SYSTEM

A. Algorithm

1) KNN Algorithm:

This algorithm measures the distance between query points and a set of present samples to classify a new object based on majority of K-nearest neighbor category of attributes of training samples.

It includes Query points and Training sample for finding final results.

2) Soap Protocol:

This paper presents a designed algorithm involves improvement of transferring data over Simple Object Access Protocol (SOAP).It is a messaging protocol used for for exchanging structure information used in the implementation of web services in computer networking

B. System Architecture

This paper mainly focuses on a security system that is designed to serve the purpose of providing security to women so that they never feel helpless while facing social challenges. An advanced system can be built that can detect the location. In case of critical and emergency situation occurs, the app

directs the smart phone to perform the task that it Sends message to nearby person and emergency contact number.

The device communicates with smart phone through IOT which acts an interface between the embedded device and the phone. It consists of Smart phone connected to a Smart device through WI-FI.

In cases of abuse, the app directs the device to perform the following tasks such as:

- 1) Sends message to the family members along with the co-ordinates.
- 2) Co-ordinates is sent to nearest police station requesting immediate action.
- 3) Also sends information to people in near vicinity requesting public attention.

The app is programmed in such a way that it uses the GPS of the device to track the co-ordinates. The help message is sent to the family members, the nearest police station and nearby person who using this app through the IOT facility that is inbuilt in the IOT software.

1) *GPS Module:*

Global positioning system (GPS) is used to identify the longitude and latitude of a receiver on Earth by calculating the time difference for signals from various satellites to reach the receiver.

2) *GSM Module:*

GSM is used to send data from control to base unit .We can use GSM 300 which operates at different frequencies.

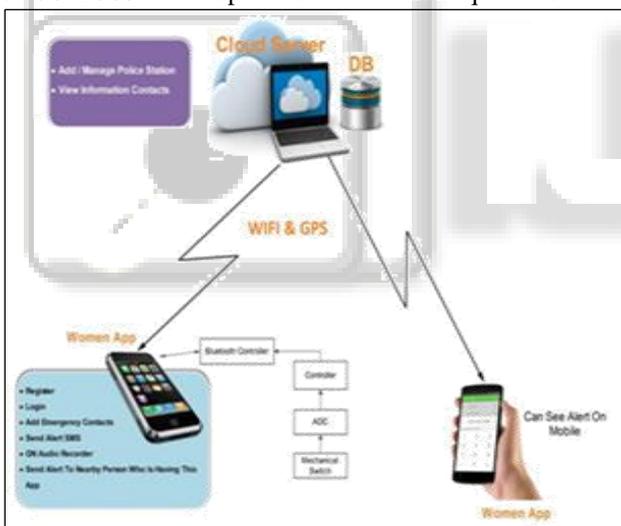


Fig. 1: System Architecture

C. *Methodology*

The working of our system is given below with the help of screenshots of our system and explanation in brief manner:

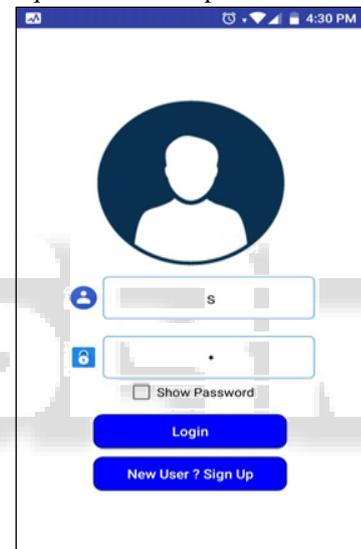
1) *Connectivity with server:*

Connectivity with the Glassfish server via Bluetooth controller is providing by giving IP address of machine for communication.



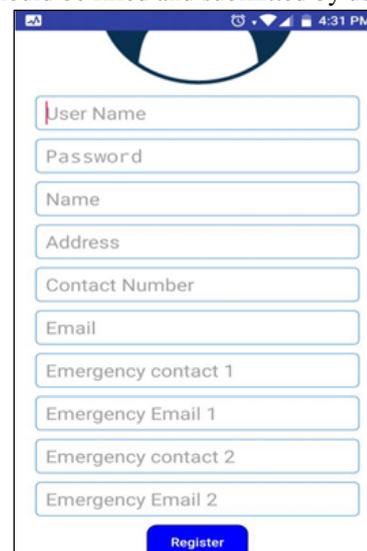
2) *Login:*

This is the very first window when system get started. Every woman has unique user ID and password for login.



3) *Registration:*

User can register himself after logged in .personal information, professional information and basic profile information should be filled and submitted by user.



D. System Requirements

1) Frontend:

Java Advance (JSwing, Applet)

2) Backend:

MySQL

3) Hardware:

a) Micro-controller: AVR At mega32:

It is single microcontroller belong to mega AVR family. It is used in the mini project and Autonomous system where a simple low power, low cost micro roller is necessary.

AVR at mega32 provided the different flexible timer/counter along with comparing mode support internal external interrupt.

4) Software:

a) Net beans:

It is an IDE (integrated development environment) for java. It is rich client application based on the net beans platform and also support glassfish server for instant messaging.

b) Server Glassfish3.3.2:

It is an open source application server and reference implementation which support java server and servlet for communication.

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IV. CONCLUSION

Implementing real time application and an upgraded device, we can solve the problems to an extent. With further research and innovation, it can be used safe guard the women in critical conditions. Even by using cloud computing it uses client server based model by which it will communicate with anyone who used this app. The innovative idea is that it lead with nearest neighbour technology by which we can contact with our nearest person at emergency time.

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