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Android Based Smart Device for Women's Safety

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ABSTRACT: Today in the current global scenario, the prime question in every girl's mind, considering the ever rising increase of issues on women harassment in recent past is mostly about her safety and security. The only thought haunting every girl is when they will be able to move freely on the streets even in odd hours without worrying about their security. This paper suggests a new perspective to use technology for women safety. India that sees itself as a promising super power associated an economic hub continues to be unfree within the clutches of various paternal evils like molestations, dowry, crime against girls, worst among all is Rape. The atrocities against the ladies are often currently dropped at associate finish with the assistance of a tool known as "suraksha". This paper explains the essential plan underlying suraksha that is to flash a warning giving a moment location of the distressed victim to the police in order that the incident may well be prevented and therefore the perpetrator appreciated. This is able to facilitate scale back crime against girls. This paper conjointly summarizes different vital works during this field and thus forth mentioned suraksha device during a larger details.

KEYWORDS: GSM (Global Positioning System), Buzzer.

I. INTRODUCTION

The standing of ladies in India has suffered several positive changes over the past few thousand years. From equal standing with men in past through the low points of the medieval period to the self-promotion of equal rights by several reformers, the history of ladies in India has been eventful. In fashionable India, girls have adorned high offices in India as well as that of the President, Prime Minister, Leader of the Opposition and Speaker of the Lok-Sabah. However, girls in India still face social challenges and are typically victims of abuse and violent crimes and, per a world poll conducted by Thomson Reuters, India is that the "fourth most dangerous country" within the world for girls, and therefore the worst country for girls among the G20 [A cluster of developing industrial Nations established on twentieth August 2003] countries. In India, each day quite thirty girls were dead and plenty of are suffering austere mental and physical trauma [1]. This method focuses on a security system that's designed alone to serve the aim of providing security to girls in order that they ne'er feel helpless whereas facing such social challenges. The system consists of assorted modules like GSM defend (SIM 900A), 8051 Microcontroller, GPS, screaming alarm, a collection of pressure sensors for activation and country" within the world for girls, and therefore the worst country for girls among the G20 countries. Our cities are unsafe for girls and as varied recent incidents have shown that the authorities also are inept in curb the menace of molestation and rape. Things that are urged by consultants are:
When feeling vulnerable:

- Be on alert, keep some friend on decision change them of your location.
- Take an image of the surroundings; share it with social networking tools.
- Keep sharing your location with applications like Latitude and Facebook.



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We propose a girl belt that will:

- Keep recording the user's location.
- Call up police/relatives/friends and supply you along with your location.
- Automatically record and transfer audio/video of the incident for analysis.
- Help the search and rescue with correct user location and medical facilitate.
- Activate high intensity Buzzer for catching attention.

The system consists of assorted modules like GSM, Arduino ATmega328 board, GPS, Buzzer, measuring system and Power provide unit.

II. LITERATURE SURVEY

VithU app: This is an emergency app initiated by a popular Indian crime television series "Gumrah" aired on Channel. In this app when the power button of the Smartphone is pressed twice consecutively, it will begin sending out alert messages with a link to the location of the user every two minutes to the contacts fed into the app

SHE (Society Harnessing Equipment): It is a garment designed by three engineers from Chennai. This garment has an electric circuit that can generate 3800kv of current which can help the victim to escape. In case of multiple attacks it can send up to 82 electric shocks. Since the fabric is bilayer, the user is not affected. It can also send emergency messages.

ILA security: The co-founders of this system, McGivern, James Phillips, and Neil Munn, have designed three personal alarms that can shock and disorient potential attackers and draw attention to dangerous situations.

The microcontroller goes about as an installed processing framework and controls the exercises of all the sub-frameworks. It is interfaced with Emergency Switch, GPS Receiver, GSM Modem, Buzzer, and High Voltage Shock Circuit. The microcontroller occasionally screens the status of current spot furthermore continues checking. On the off chance that the parameters are typical and if the Emergency Switch is not squeezed, it does a reversal on the up and up and proceeds with standard observing procedure. Be that as it may, if the Emergency Switch is observed to be squeezed, it actuates the discourse circuit to make boisterous yelling sound to get the consideration of the close-by individuals for help. It likewise readies the High Voltage Electric Shock Circuit to be prepared to give a non-deadly stun to the aggressor. [4] In the event that the assistance is not accessible and if the framework is not reset inside the stipulated time, acquire area data from the GPS and set up a content SMS containing the present area data and send SMS through GSM modem to the police control room and misery message to the pre-modified portable number [5].

III. PROPOSED SYSTEM

We will be tracking the situation of the person via GPS and storing the main points of the current location into a remote server via GPRS consecutively, we are going to even be tracking the schedule of the person as per the schedule list that is being uploaded by the person and that we are going to be sending SMS to the relatives of the involved person regarding the schedule their current location of the involved person who time. so they'll come back to understand concerning the standing and if one thing is wrong, we are going to be having another set of oppositions to grant a call to a police, social workers, volunteer organizations, etc.

- ▶ Smart phone connected to a Smart Device through Bluetooth.
- ▶ The device communicates with smart phone through a specially designed application.
- ▶ That application acts an interface between the device and the phone.
- ▶ In cases of abuse, the app directs the smart phone to perform the following tasks:
 1. Sends message to the family members along with the coordinates.
 2. Co-ordinates are sent to nearest police station requesting immediate action.
- ▶ The app is programmed in such a way that it uses the GPS of the smart phone to track the co-ordinates and monitor the movement for easy track ability.

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IV. SYSTEM ARCHITECTURE

The device may be motivated by three ways particularly, voice, switch and shock. The device once not in use is going to be fast in order that needless signals don't seem to be sent. For unlocking it, an easy voice command is sufficient. Once the device is thrown with force, exploitation force detector, it'll begin functioning i.e. it'll send location to the police and distress message to the registered mobile variety through a GSM module, and some are going to be achieved by a voice command just in case the device isn't within the section of the user. A mere press of a switch will send location still as distress message, via the transmitter module to the police room to the opposite registered mobile number, via GSM module. It contains everything needed to support the microcontroller; simply connect it to the Arduino.

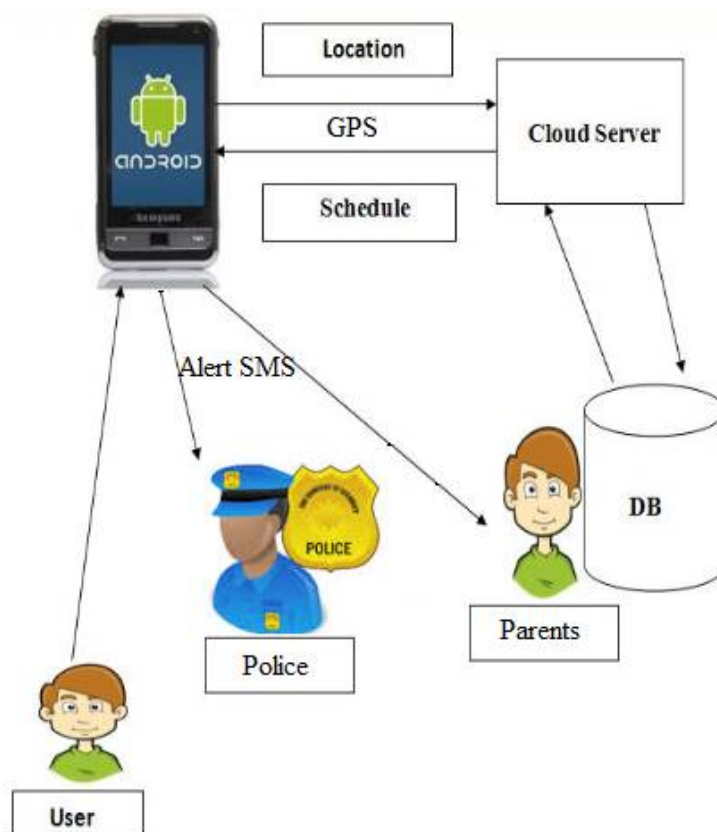


Fig.1: System Architecture

Working

Above figure show that button and measuring device is that the inputs i.e. victim will trigger the circuit gate will trigger as its own. Once button is press by victim, good phone vibrates and that we get a pop message as “calling for help”, and then GPS trace the situation which location can send to the emergency contact via GSM of good phone.

When the edge worth of measuring device crosses, the device can get activated mechanically. Directly the situation of the victim is going to be caterpillar-tracked with the assistance of GPS and emergency messages are going to be sent to 3 contacts and one to police room. The Buzzer are going to be activated and can channelize sirens to decision out for facilitate.

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If somebody desires to speak with person/ victim, then system sends line of longitude and latitude if variety returning from an individual (given just in case of emergency contacts) with a specific code.

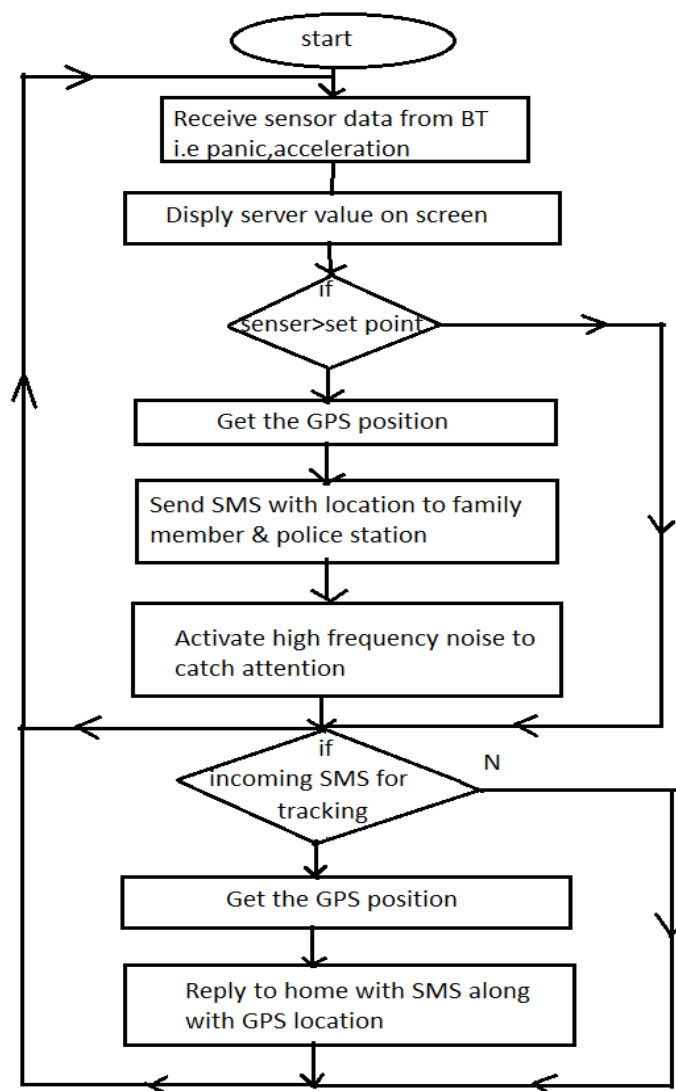


Fig.2: Flow Chart

V.CONCLUSION

The simulation results showed that the projected algorithmic rule performs higher with the full transmission energy metric than the utmost range of hops metric. In today's world, many ladies workers face the matter of security that is going down round the world particularly across Asian country. The projected style can manage crucial problems faced by girls within the close to past and can facilitate to unravel them with technologically sound equipment's and ideas. This method will overcome the worry that scares each lady within the country regarding her safety and security.



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VI.FUTURE SCOPE

Electronic technologies: The styles usually incorporate sensible functions and options. Wearable devices like activity trackers area unit a decent example of the web of Things, since they're a part of the network of during this project we will additional implement electrical device (The electrical device, additionally referred to as The Gun or Beam Gun in Japanese associate electronic light-weight gun. this may be used for the defence purpose.) And aerosol containers are often used. wearable technology, wearable's, trendy technology, wearable devices, tech togs, or fashion natural philosophy area unit wear and accessories incorporating pc and advanced physical objects or "things" embedded with natural philosophy, software, sensors and property to change objects to exchange information with a manufacturer, operator and/or alternative connected devices, while not requiring human intervention.

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BIOGRAPHY

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