Female Safety Kit using GPS, GSM & Raspberry Pi 3+ Module

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Abstract- **Women's have been a subject of harassment by men's at almost any place, may it be a public transport or place of public utility. As more and more women are now working in fields which were male dominated or had an odd working time specifically the night shifts. There has been a spurt in violence and harassment of women's. In this work we try to present a review on various women's safety measures or schemes which have been implemented over the years and on the basis of the review carried out we propose a smart gadget which can help the women to alarm the relatives when he is in such danger of being harassed or kidnapped by forwarding the current location recorded by the GPS through an SMS to the registered number and will capture the image and store it in SD card**

Index Terms- Safety System, GPS, GSM, Embedded System.

I. INTRODUCTION

In today's world, women safety has become a major issue as they can't step out of their house at any given time due to physical/sexual abuse and a fear of violence. Even in the 21st century where the technology is rapidly growing and new gadgets were developed but still women's and girls are facing problems. Women are adept at mobilizing diverse groups for a common reason. They often work across ethnic, religious, political, and cultural divides to promote liberty. We are all aware of importance of women safety, but we must analyze that they should be properly protected. Women are not as physically fit as men; in an emergency a helping hand would be assistance for them. The best way to curtail your probability of exposure of violent crime (robbery, sexual assault, rape, domestic violence) is to recognize, and arm yourself with resources to help you out of hazardous situation

II. LITERATURE SURVEY

1. M.Nasiruddin, Shreyas Bonde, Nikhil Khadse, Nasrin Sheikh, Masiha Firdous, D.Chandrika, "Female Safety Kit using GPS, GSM & Raspberry pi 3+ module" published in Journal of Emerging Technologies and Innovative Research (JETIR) print ISSN No 2349-5162. The project was basically for women safety with the help of rasberry pi 3+ processor along with GPS and GSM module in which we can have the image , location, as well as SMS in the registered mobile number regarding the respective person.

2. L. Ashwin Kumar, "Mobile Application for News and Interactive Services" published in ARPN Journal of Science and Technology 2010- 2012 ARPN Journals describes the design and implementation details of a mobile application supporting news access and virtual community interactive services, based on open technologies such as Android, Java programming language, Android libraries, MySQL database and an open Web server. The objective of this projects to handle the mobile application easily, interactive, flexible, with a portable Android.

3. Ramya R, Hari Prashanth.D, Usha M, "A GSM Based Security Device for Women Working Late Night"was published in International journal of advanced research in computer engineering & technology (ijarcet) Volume 4 issue 4, April 2015 1213" gives a brief explanation about the camera based for night work of woman and the technique used.

4. B. Vijaylashmi, Renuka.S, Pooja Chennur, Sharangowda. Patil, "Self-defence system for women with location tracking and SMS alerting through GSM Network" was published in

International Journal of Research in Engineering and Technology(IJRET) eISSN: 2319-1163 | pISSN: 2321-7308 Volume: 04 Special Issue presented a system which finds the location of user through GPS system.

5. Prof. BasavarajChougula, Archana Naik, Monika Monu, PriyaPatil and Priyanka Das, "Smart Girls Security System", was published in international journal of application or innovation in engineering & management (ijaiem) Volume 3, issue 4, April 2014 ISSN 2319 –4847have proposed the best protection security for woman's safety based on programming.

6. On the basis of literature review carried out we find a need to develop a system which gives the where about of the women when she is in danger. The GPS will record the current location and will forward it in the form of an SMS to the registered user.

III. PROPOSED SYSTEM

Here we will use vibration sensor. When the value of vibrations will exceed the threshold then the camera will capture the image and store it in the SD card in Rasberry Pi.
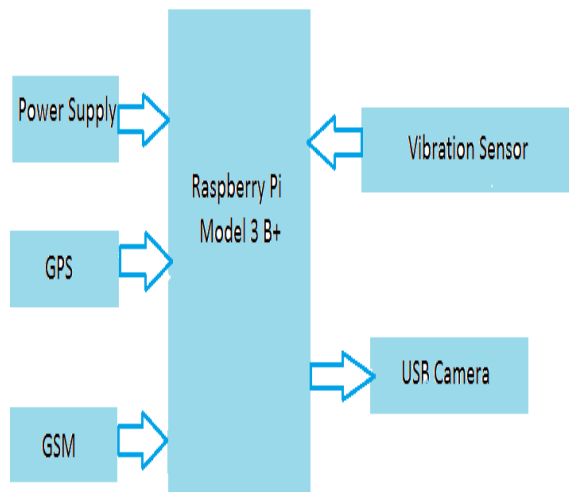

Figure 1 : Block diagram of the female safety Kit
At the same time GPS will record the current location and the system will forward the location in the form of an SMS to the registered number.

Figure 2: Model of female safety kit

IV. ADVANTAGES

The advantages of this project are increased self-confidence, a decreased feeling of vulnerability, ability to recognize threats, ability to avoid threats, reduced risk of being victimized, improving overall personal safety.

V. APPLICATIONS

- Provide parents a security for their child in today's life.
- Can be used for the safety of elderly aged people.
- Alert system useful in insecure environment.
- Ensures women's safety at any cost.
- Live tracking.

VI. CONCLUSION

Thus we conclude that we have been able to carry on review of different techniques that have been used over years for women safety. On the basis of literature review carried out we also propose a system which will act as a safety gadget for the women's and may help het to give the information of where about to the concerned person in danger and at the same time will be able to record the picture of the offender in the SD card.

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