

## WEARABLE SAFETY DEVICE FOR WOMEN A SURVEY

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**Abstract:** In this proposed smart wearable device uses different sensors like heartbeat sensor, temperature sensor, for spotting heartbeat and temperature, when the switch is pressed an alert message along with the location is sent to a predefined number. It also contains a shock mechanism to produce the shock to the attacker for self-defense. Hence, in this proposed prototype GPS sends emergency messages using GSM to three emergency contacts and the police control room. We surveyed the proposed mechanism for detecting locations, it also uses non-lethal electric shock mechanism and recordable Camera for better security for women, when she is in danger.

**Keywords:** Arduino AT Mega 328, GPS, GSM, shock generator, Recordable Camera, piezo buzzer and sensors.

### I INTRODUCTION

The system is capable of tracking the location and health of the women continuously. The system sends alerts to the predefined numbers in the case of emergency. The GPS is the acronym for Global positioning system. This GPS receiver is capable of identifying the location in which it was present in the form of latitude and longitudes. This information is very useful and can be processed for alerting the boat drivers. The GPS gives the data received from the satellites. Whenever panic switch is pressed the location of the women goes to the predefined numbers along with the location of the women. It also contains a shock mechanism to produce the shock to the attacker and buzzer also beeps. It can also record video images with recordable camera.

#### 1. WORK DONE:

Ankush Chavan, Kunal Patil et al [1], WWM (Walk with Me) is a social welfare application which is being created on Android platform especially for women from where their closed ones will be able to know about their current location through live tracking. M. Pradeep, R. Abinya et al [2], the gadget includes sensors for acid attack and physical harassment. It has GSM and GPS module for locating the victim. Anandjatti, Madhvikannan et al [3], this device is programmed to continuously monitor the subject's parameters and act when any dangerous situation presents itself. Sanjida Sharmin, Shajeda Khanam et al [4], The BLE security device aligned with an android mobile app. Dantu Sai Prashanth, Gautam Patel et al [5], the dynamic GPS tracking offered by Pub Nub's channel is used. Pavithra, Karthikeyan et al [6], the correct area where the individual is found and send the point of internet through SMS. Dhruv chand, Sunil nayak et al [7], the user can easily and discreetly trigger the calling function by shaking her phone. Glenison Toney, Puneeth et al [8], they propose a system victim not only to send a panic and alert message but also collect evidences in the forms of images. Sabari, Sorna Rajeswari et al [9], hence this system combines both GPS and GSM technology for identifying the locations and sending them as a message. Nandita viswanath, G.muneeswari et al [10], the automated system gave high accuracy of 100% in the tapping scenario. Ravi sekar yarrabothu, Bramarambika thota et al [11], a single click on this app identifies the location of place through GPS and to help the one in dangerous situations.

Divya chitkara,yash dev vashisht et al [12], The glove is the conducting layer which can be activated by the wearer on encounter of any violent. J.K.Thavil,V.P.Durdhawale et al [13], “Smart band “ which continuously communicates with smart phone that has access to the internet. Baig Mohammad, T.sravani et al [14], the location of the victim will be tracked and message will be sent to the emergency contacts. Bhavya,Nagesh et al [15], Women self-defense watch including GSM and GPS. Whenever emergency key is pressed the alarm gets activated. Aditya patil,Prasenjeet nikam et al [16], They have proposed IOT based device which will help to continuously monitor values of different sensors and GPS used in device. Dr. Sridhar Mandapati, Sravya Pamidi et al [17], some apps created to know whether a woman is safe or not? Which indicates the present state of affairs of the woman by touching the option. Shubham sharma.Fasil ayaz et al [18], The device can be activated by just merely pressing the emergency button once., Shraddha Chavan, yojana Mokal et al [19], The women wearing a watch or band when finds that someone is going to harass, she presses a switch that is located on the watch or band. Amol Sapkal, Samiksha U.Katait et al [20], the concept of finger print authentication will be used as password. So, whenever the girl wants to leave the hostel, she can enter her out time and destination place and she can carry security module with her. Niti shree et al [21], concerned device is connected to server via internet. The device can be used by parents to track their children in real time or for women safety. Yatharth Choudhary, Surbhi Upadhyay et al [22], the sent message includes the current position of the woman which is fetched by the location tracking GPS module. Geetha Pratyusha Miriyala, P.V.V.N.D.P Sunil et al [23], Tear gas mechanism and live streaming video using webcam is incorporated in the spectacles that act as a weapon of the smart technology. Shivam Bhatia,Swati Sharma, et al [24], From GPS used as a GPRS location of women travelling in the cab would be accessible to the Police Control Room. Supriya,Swathi et al [25], An ounce of prevention is worth a pound of cure.

## **2. ADVANTAGES:**

Ankush Chavan, Kunal Patil et al [1], software-based solution for safety of women is investigated. M. Pradeep, R. Abinya et al [2], the tool for intrusion detection inside the home where senior citizen, handicapped person or women leaving alone. Anandjatti, Madhvikannan et al [3], the machine learning algorithms used to make the device intelligent. Sanjida Sharmin, Shajeda Khanam et al [4], the system works properly with the distance between the security device and the mobile phone is more than 10m. Dantu Sai Prashanth, Gautam Patel et al [5], Sufficient battery life, Fast internet speed with good signal length, GPs must be enabled and Less background applications. Pavithra, Karthikeyan et al [6], It gives secure and safe condition framework. Dhruv chand, Sunil nayak et al [7], It can track the person even if they are in a less coverage area. Glenson Toney, Puneeth et al [8], the automated system gave high accuracy of 100% in the tapping scenario. Sabari, Sorna Rajeswari et al [9], It can track the person even if they are in a less coverage area. Nandita viswanath, G.muneeswari et al [10], the automated system gave high accuracy of 100% in the tapping scenario. yarrabotheu, Bramarambika thota et al [11], If the victim moved from incident place to some other location; we can identify that location easily. Divya chitkara,yash dev vashisht et al [12], The wearer and the person using it is completely safe. J.K.Thavil,V.P.Durdhawale et al [13], The system reduce the cost of the device and also in reduced size. Baig Mohammad, T.sravani et al [14], the system can be fitted into small areas like wrist band or into the spectacles of the user. Bhavya,Nagesh et al [15], Compact in size,Wireless connectivity and Easy maintenance. Aditya patil,Prasenjeet nikam et al [16], A device is wearable and so it is easy to carry. Dr. Sridhar Mandapati, Sravya Pamidi et al [17], Based on the future security issues, security can be improved using emerging technologies. Shubham sharma.Fasil ayaz et al [18], the whole device just runs with total of 12v in which 5v enough for the ARM to process. Shraddha Chavan, yojana Mokal et al [19], Consumes Less Power Provides Very Accurate Data Via GPS System.

Amol Sapkal, Samiksha U.Katait et al [20], RFID card can be used for identification but it is not safe. Niti shree et al [21], the necessary information of the smart phone that will be used to locate the smart phone. Yatharth Choudhary, Surbhi Upadhyay et al [22], on time and the suspect can also be tracked down ensuring complete safety and security of the woman. Geetha Pratyusha Miriyala, P.V.V.N.D.P Sunil et al [23], This system can overcome the fear that scares every woman in the country about her safety and security. Shivam Bhatia, Swati Sharma, et al [24], women security system is more reliable and accurate. Supriya,Swathi et al [25], This can boost up the analysis process to some extent.

### **3. DISADVANTAGES:**

Ankush Chavan, Kunal Patil et al [1], the women will become more dependent on other people by using the Application. M. Pradeep, R. Abinya et al [2], Thus, by using the VLSI technology, only the gadget can be modified to wearable devices. Anandjatti, Madhvikannan et al [3], accurate recognition of a dangerous situation is a complex matter. Sanjida Sharmin, Shajeda Khanam et al [4], both sender and receiver need to keep the GPS on. Dantu Sai Prashanth, Gautam Patel et al [5], this app requires an initial registration along with emergency contacts from time to time. Pavithra, Karthikeyan et al [6], the application will bolster only the android mobile phone. Dhruv chand, Sunil nayak et al [7], the confusion at police stations regarding where the officers must be dispatched from. Glenson Toney, Puneeth et al [8], the victim will always not be having freedom to turn on the system manually. Sabari, Sorna Rajeswari et al [9], the helper needs a mobile phone with internet facility to show the located position in the map. Nandita viswanath, G.muneeswari et al [10], this device works well only in scenarios where the user's feet are at ground level. yarrabothu, Bramarambika thota et al [11], some use cases such as rescuing victim, the mobile network is not available. Divya chitkara, yash dev vashisht et al [12], The effectiveness and compact size and weight of circuitry is more. J.K.Thavil, V.P.Durdhawale et al [13], The application should be first pre-installed in phone. Baig Mohammad, T.sravani et al [14], the circuit cannot be adjusted to any voltage value, it is dangerous. Bhavya, Nagesh et al [15], mainly it is with network problem. Aditya patil, Prasenjeet nikam et al [16], The device at receiver should be connected to internet in order to receive data from transmitter. Dr. Sridhar Mandapati, Sravya Pamidi et al [17], It is not possible to upgrade the system. Shubham sharma, Fasil ayaz et al [18], The prototype of the device which we initially made and it should be minimize. Shraddha Chavan, yojana Mokal et al [19], The only thing that is clear about constitutional protections for location-based service information is the lack of clarity. Amol Sapkal, Samiksha U.Katait et al [20], RFID card can be used for identification but it is not safe. Niti shree et al [21], the application to be implemented on smart phones that don't support GPRS, 2G or 3G internet connectivity. Yatharth Choudhary, Surbhi Upadhyay et al [22], the location of the woman was not successfully tracked. Geetha Pratyusha Miriyala, P.V.V.N.D.P Sunil et al [23], this acquires a fast pace due to lack of a suitable surveillance system. Shivam Bhatia, Swati Sharma, et al [24], the only constraint which we not faced during the course of project. Supriya, Swathi et al [25], There is still an urgent need to strengthen the evidence.

## **CONCLUSION**

It can be concluded that, we have referred some of the reference's papers to provide security to women, and allows them to work till late nights. Anyone before doing any crime against the women will be deterred and it help reducing the crime rate against the women. This proposed system is helpful for women to escape from the dangerous situation.

## REFERENCES

The sites which were used while doing this project:

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