WOMEN SAFTEY DEVICE USING GPS

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ABSTARCT
Women's safety is a major concern because of the increasing number of crimes against women. We suggest a GPS-based women's safety system with a dual security feature to help tackle this problem. In the event that a woman is harassed or believes she is in danger, this device's dual alert system will let her know right away. A woman can activate this mechanism if she has the slightest inkling that she might be in danger. It is useful since a woman may or may not be able to hit the emergency button in the event of an accident. If a woman gets struck in the back of the head with a button-press alerting system, she may never have the opportunity to press the panic button, and no one will be aware that she is in danger. This difficulty is solved by our system. A lady should activate this device ahead of time if she intends to travel down a lonely road, through a dark alley, or in any other isolated location. The woman who has been authenticated to the devices is able to read the system through her heart pulse. An SMS message is sent to an approved person's phone number as a security measure, and a buzzer is constantly ringing so that people in the area know what's going on. Even if someone hits the woman or she falls and becomes unconscious, the device will not require a finger scan and will begin using the dual security feature automatically. This device has the potential to save lives and stop violence against women. The GPS sensor, a gsm modem, an LCD display, LEDs, and a microcontroller-based circuit are all used in conjunction to make this gadget**.**

1. INTRODUCTION

A microcontroller is used in this women's safety gadget. The ATmega8 microcontroller is one of the earliest and most widely used microcontrollers in the AVR series. This microcontroller has less functionalities than other microcontrollers, and it's also more readily available and inexpensive. The AVR microcontroller was used to construct the women's safety system, which communicates with a GSM modem through a MAX-RS 232 interface. Using GPS, GSM, and a defence mechanism, we've been able to communicate an alarming condition and prevent an occurrence. This is our system's ultimate goal. Because of this, the design is divided into two distinct sections. A) Spread of the offending message via wireless B) Keeping the criminals away. 1) When a woman wearing a watch or band notices that someone is coming to harass her, she presses a switch on the watch or band, which is accompanied by a temperature and heartbeat sensor condition check. GSM modules detect the signal and send it to the AVR microcontroller, which activates the AVR's memory and sends the message "HELP" to the intended recipient via GSM after it has been decoded (either by some code or by 414 | P a g e name). Secondly, this safety gadget can be used for both self-defense and crime prevention. As soon as an emergency scenario is recognised, a bright flash light and a loud siren are switched on to inform the people in the vicinity of the woman in danger. If a lady is unable to scream out of fear, this device can alert those around her of her precarious predicament. In the event of an attack, a shock generator built into the device can be used to shock the assailant. The attacker will flee as a result of this powerful shock.

2. LITERATURE SURVEY

2.1 Barbosa, Luciano, and Junlan Feng. "Robust sentiment detection on twitter from biased and noisy data." Proceedings of the 23rd international conference on computational linguistics: posters. Association for Computational Linguistics, 2010.
As part of this study, we have developed a system for automatically detecting sentiments in Twitter messages (Tweets) that takes into consideration unique elements of how tweets are written and word meta-information. In addition, we use training data from sources that have a lot of noise in them. These muddled labels were generated from twitter data by a few sentiment recognition companies. The results of our research suggest that

our method is superior to previous approaches because it is able to deal with data that is skewed and noisy, which is what these sources provide.

2.2 Analyzing polarity at the phrase level using lexical affect score and syntactic n-grams is the goal of this study by Apoorv Agarwal, Fadi Biadsy, and Kathleen Mckeown. The proceedings of the European Chapter of the Association for Computational Linguistics' 12th annual conference were published. Computational Linguistics Association, 2009

In this paper, we provide a classifier for predicting the contextual polarity of subjective statements in a sentence. WordNet and the Dictionary of Affect in Language (DAL) provide the foundation for our lexical scoring, which eliminates the need for manual labelling and allows us to score the vast majority of words in our input. We use n-gram analysis to supplement lexical scoring in order to account for context. Syntactic constituents and DAL scores are combined, and ngrams of components are extracted from all sentences. Syntactic elements' polarity can also be used as a feature. This study's results demonstrate considerable gains over both the majority class baseline and the harder lexical n-gram baseline.

2.3 "Classifying emotion in microblogs: is brevity an advantage?," Adam Bermingham and Alan F. Smeaton. Information and knowledge management proceedings of the 19th ACM international conference. The ACM, 2010

Internet users are increasingly using microblogging to share their views and information in real time. In order to keep tabs on how the public feels about people, products, and events, many are interested in automated microblog sentiment analysis. Because of their brief length, microblog posts can be published and accessed via a wide range of devices and interfaces. Nonstandard textual artefacts such as emoticons and informal language have been used as a result of this brevity constraint. In the end, the text is regarded "noisy" by many. It is acceptable to infer that the concision of the content is enhanced by the short document length. Automated sentiment analysis approaches may benefit from the text's narrow emphasis and higher density of sentiment-bearing phrases. It's also possible that the shorter duration and language conventions utilised mean there isn't enough context for the information to be conveyed

3. PROPOSED SYSTEM

In this kit, we propose a method for women's safety with gps alerts and global mobile communications. When a woman is in an abnormal position, this kit is very useful to save and alerts are sent to the nearest police stations or closest family members, along with a message along the global positioning system.
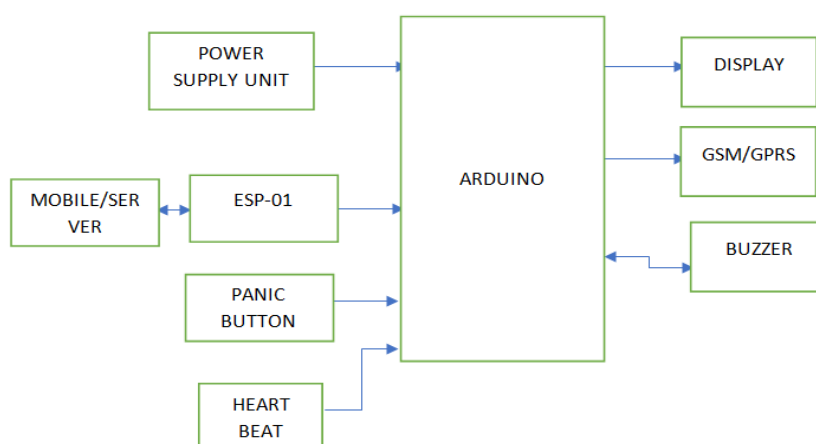

Fig 1: Block Diagram

Hardware Requirement:
- ESP-01
- LCD
- Power Supply

- GSM
- BUZZZER
- PANIC
- Arduino

Software Components:
- Arduino IDE
- ProteouS

ADVANTAGES
- Best for women security Keeps others alert.
- Helps to keep safe from robbers.
- Location tracking becomes easy.
- Sophisticated security.
- Monitors all hazards and threats.
- Alert message to mobile phone for remote information.
- Can be used to prevent incidents
- It calls for help without alerting the attacker.
- It is less costly as compare to mobile phone.
- It is the wearable device

APPLICATIONS
- The woman's safety device with GPS tracker can be used while walking through the dark street at night.
- This project is also useful in case of an accident
- .Can be used to get rid of robbers.
- Security appliances.
- Safety of women.
- Used as legal evidence of crime with exactlocation information for prosecution

4. RESULST AND DISCUSSION
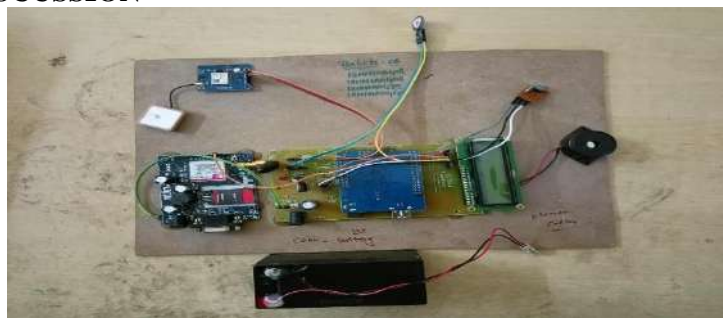
Fig 2: input image
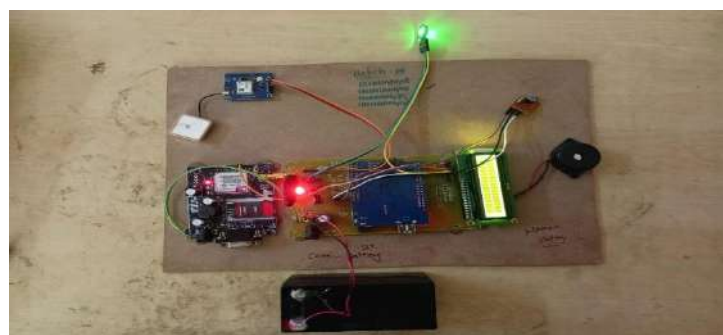
Fig 3: Output image

5. CONCLUSION

The results of this survey show that GPS, GSM, and sensors can only be used to track users in close proximity and send alert SMSes to a small number of people. Currently, a buzzer informs individuals when they are in danger, and a mobile app assures the safety of women by using a buzzer system to send alert SMS. The user will share their location with family members and utilise an SOS service to send the text message. As a result, a new method for sending alarm messages automatically and without human intervention is required.

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