



IMPLEMENTATION OF TRINKET MODEL –WHICH ASSIST WOMEN OR GIRL AGAINST VIOLENCE IN THE SOCIETY FURTHER HELPS CONCERNED ONE TO CARRY OUT PROPER ACTION AND COUNTER TO THE ISSUE

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ABSTRACT

Now in recent times the crime against women and girl are being rapidly increasing. The women or girl child has to undergo deep trouble on various situations viz. it may be physical, verbal or using social networking. The women or girl do not have a proper way to express their emotions or to react to the problem.

This manuscript specifically addresses the issues related to women and girl harassment in the society by implementing trinket model which is equipped with digital devices and for a women or girl it acts like a shell and protects women or a girl from harassment.

KEYWORDS: Save our Souls(SoS), Global Positioning System (GPS), Database(DB), Area Zone Notification(AZN), Area Zone Module(AZM), Short Message Services(SMS).

1. INTRODUCTION

Now in recent times the crime against women is being rapidly increasing. However, harassment does not have to be done face-to-face and can even affect those who work remotely. It can be verbal, written, bodily provocation (sexual or aggressive) or even done through looks or gestures and other hostile or unwanted acts. The following are the statistics about the crime against women:

- Globally, an estimated 736 million women—almost one in three—have been subjected to physical and/or sexual intimate partner violence, non-partner sexual violence, or both at least once in their life (30 per cent of women aged 15 and older). This figure does not include sexual harassment. The rates of depression, anxiety disorders, unplanned pregnancies, sexually transmitted infections and HIV are higher in women who have experienced violence compared to women who have not, as well as many other health problems that can last even after the violence has ended. [1]
- Most violence against women is perpetrated by current or former husbands or intimate partners. More than 640 million women aged 15 and older have been subjected to intimate partner violence (26 per cent of women aged 15 and older). [1]
- Of those who have been in a relationship, almost one in four adolescent girls aged 15–19 (24 per cent) have experienced physical and/or sexual violence from an intimate partner or husband. Sixteen per cent of young women aged 15 to 24 experienced this violence in the past 12 months. [1]

- In 2018, an estimated one in seven women had experienced physical and/or sexual violence from an intimate partner or husband in the past 12 months (13 per cent of women aged 15–49). [1]
 - Globally, violence against women disproportionately affects low- and lower-middle-income countries and regions. Thirty-seven per cent of women aged 15 to 49 living in countries classified by the Sustainable Development Goals as “least developed” have been subject to physical and/or sexual intimate partner violence in their life. Twenty-two per cent of women living in “least developed countries” have been subjected to intimate partner violence in the past 12 months—substantially higher than the world average of 13 per cent. [1]
 - Globally 81,000 women and girls were killed in 2020, around 47,000 of them (58 per cent) died at the hands of an intimate partner or a family member, which equals to a woman or girl being killed every 11 minutes in their home. In 58 per cent of all killings perpetrated by intimate partners or other family members, the victim was a woman or girl. [1]
- By this much of stats and data we are sure that the crime rate against women is quite high, to track down the crime rate this paper will be helpful to the society.

2. RELATED WORK

APPS IN ANDROID MOBILES:

There are several personal safety apps for women available on Android as well as in IOS. Here below are some examples:

- Noon light: A unique app that lets you deal with potential threats as well as actual threats. [2]
- SHEROES: An app exclusively for women. [2]
 - (1) SOS Alert [2]
 - (2) Microsoft Family Safety [2]
 - (3) Personal Safety [2]
 - (4) Guardians [2]
 - (5) Women Safety [2]
 - (6) Sekura [2]

As of now many apps have been made in android as well as in IOS which are now been put to use; but this ornamental alarm is to pass information quickly, by having SOS button outside (in ornaments: necklace, bracelet, watches, keychains) it will also be easy to use and it will also be unrecognizable by others as well as will be covered with some wallet so it will not be pressed without the knowledge of the women.

VOICE RECOGNISABLE AI:

There are also several AI's which will recognize the voice of the victim and will send the corresponding message to family and the friends and which may also send messages or calls when it is not required to do so this may also result in filing false complaints in police stations. So, this AI will sort out these problems to by only when the SOS button is pressed cautiously and also has a closed inside wallet so it will not be pressed in absence of the person's mind so no misperception will be there while transmitting the messages. [3]

ADVANCED ARTIFICIAL INTELLIGENCE SECURITY SYSTEMS:

The system is being used in the basis of AI detecting the emotions of the person (example; Anger, Fear) after detecting the emotions of the person the AI will send a message to the relatives of the person and this may also be sent when she may be angry or afraid of some other thing. So by sticking to this idea the messages can be sent without the acknowledgement of the person and this may lead to a troublesome Situation. So by using this trinket model we can avoid ambiguity of the system. [4]

3. METHODOLOGY AND EQUIPMENTS

Creating an ornamental alarm system with an SOS button to send emails to the victim's relations when a woman is being harassed is a new idea which consists of both hardware and software. The following are the material required to build up the trinket model:

(i) **Ornamental SOS Button:** Design an ornamental SOS button that the woman can carry as a wearable accessory, like a pendant, bracelet, or keychain. The button will be kept inside a wallet which will be attached to the trinket device. It will also be accessible and discreet to use during emergencies.

(ii) Microcontroller or Single Board System:

Include a microcontroller or a single board System (e.g.; Arduino). This microcontroller will process the input from the SOS button and manage the communication with the WhatsApp, email and the SMS.

(iii) **SOS Button Trigger:** During emergency situations by pressing SOS button one can activate microcontroller to execute the programmed instructions.

(iv) **Internet Connectivity:** The connection can be established by using the cellular data and mobile network to enable the communication.

(v) **API's:** Different built in API's can be used to transmit the messages. The mode of transmission may be in the form of email, WhatsApp or SMS.

(vi) **Power Source:** CMOS battery can be used as a power supply for the system

4. TRINKET MODEL OVERVIEW

The following diagram depicts the overview of functioning of Trinket Model

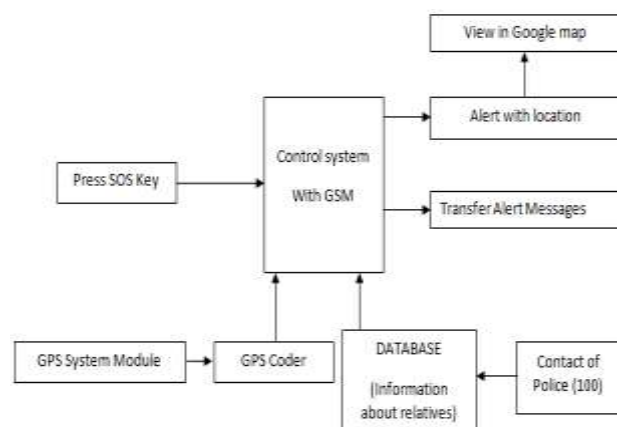


Fig 1: OVERVIEW OF TRINKET MODEL

5. SYSTEM FLOW

The following diagram Describes internal functioning of the microcontroller.

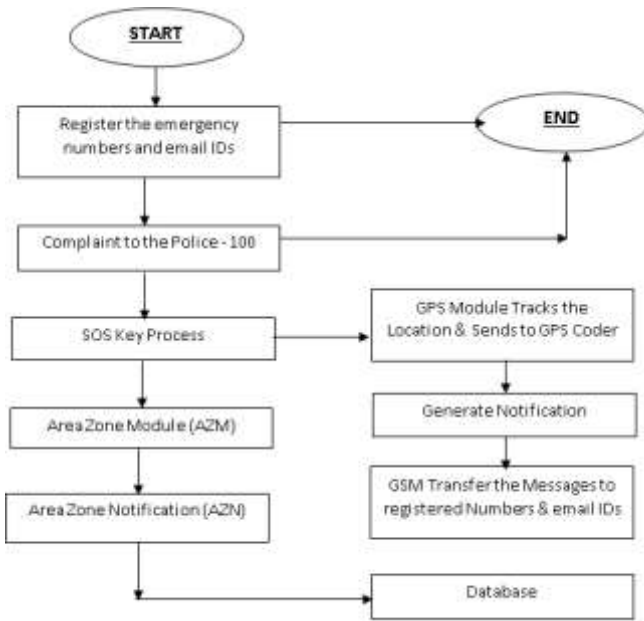


Fig 2: Detailed System Flow

6. CONCLUSION

The implementation of Trinket model in the ornaments will surely help the women or girl who is gravely in need. Further the system helps to police force, relatives and friends to take proper action and react to the issue promptly. Meanwhile the offender will not be aware that he/she is in trace.

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