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SMART FOOT WARE AND SHOCKING BAND FOR WOMEN SECURITY

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Abstract— In this project, a smart safety shoe for women was presented by the author. The entire system uses GPS and GSM modems, electric shock circuits, and an Arduino microcontroller board. A GPS receiver acts as a detector and identifies the location of the accident in the form of longitude and latitude. GSM uses a programmed microcontroller to send latitude and longitude information as SMS to five predefined numbers. It also sends calls to phone numbers. A microcontroller acts as the backbone of the system. With a single press of the panic button, he can wake up the entire system. This document also provided a hardware representation of the system. It shows an overall compact assembled system on the women's sole to increase the reliability of the specified task. Real-time processing of data is illustrated in various diagrams

Keywords-*Women Safety, IoT, Live Streaming, GPS, GSM, SmartShoes, Arduino*

I. INTRODUCTION

This is directly proportional to the increase in urbanization and industrialization as we move to a more digital future. This is the main cause of the generation of large amounts of waste. According to a report released by the World Bank, about 1.3 billion tons of municipal solid waste is generated every year, and it is expected to increase to about 2.2 billion tons per year by 2025. Waste management is important because these wastes are scattered and dumped in fields and pose a major problem for various disease-causing bacteria and viruses. By sorting, waste can be effectively reused and recycled. Thus, waste management has become a major concern for the health and welfare of society. Garbage sorting is now done manually by installing different bins to collect different types of garbage such as wet, dry and metal. However, this method has many contradictions. One of them is that most people are ignorant about waste management. Large amounts of untreated waste are sent to landfills due to the lack of proper sorting methods. So our idea is to build a garbage sorter that can recognize the type of garbage and automatically dump it into different bins accordingly. By implementing our project at the household level, waste disposal costs are reduced, manual waste sorting is reduced, and waste can be easily recycled, and reduced.

II. LITERATURE REVIEW

India, which sees itself as a promising hyper-economic hub, is still trapped in a slew of evils, including sexual abuse, dowry, and crimes against women, the worst of which is rape. Atrocities against women can be ended with the help of a device called a Sulaksha. This device explains the basic idea behind Sulaksha. This is to send an instant alert to the location of the victim in distress to the police so that incidents can be prevented and the perpetrators can be apprehended. This helps reduce crimes against women. The paper also summarizes other important research in the field, so Sulaksha elaborates on her device.

One Touch Alarm System for Women's Safety by GSM, This device describes the One Touch Alarm System for Women's Safety by GSM. With the recent outrage in Delhi that has rocked the country and made women's security issues aware, people are finding different ways to protect themselves. increase. This will help you identify and obtain resources that can help you get out of dangerous situations. Simply press and hold the button on your device whenever you feel threatened.

This device consists of a PIC microcontroller, a GSM module and a GPS module. The system resembles a regular watch, and when activated it tracks the woman's whereabouts via GPS (Global Positioning System) and alerts contacts and police dispatchers via GSM (Global System for Mobile Communications). Send The main advantage of this system is that the user does not need a smartphone, unlike other previously developed applications. The use of sophisticated components ensures accuracy and increases reliability

B'safe & B'secure - The Door to Safety Swings - The history of violence against women remains obscure in the academic literature. This is because many types of violence against women (especially rape, sexual assault and domestic violence) are often underreported or underreported because of social norms, taboos, stigma and sensitivity of the issue. It is factual. It is widely recognized that the lack of reliable and consistent data continues to be an obstacle to getting a clear picture of violence against women. According to the World Organization for Women, crimes against women are on the rise beyond what ordinary people think. Therefore, we propose to develop an Android application called B'Safe

& B'Secure, which uses this device to provide both safety and security for women. This app contains unique features.
B. If the user has a problem and is not connected to the internet at that time, using SOS technology, a text her message will be sent to the registered contacts along with the user's current location. The app can also be used in emergencies, allowing the user to track the location and contact information of nearby hospitals and police stations via her GPRS.

Indian women face many problems when traveling by bus and other vehicles. Flash into the 21st century, when knowledge grew rapidly and new gadgets were introduced, but women and girls still face problems. Women are confined to their homes at night, and many incidents occur in crowded areas during the day. In response to these problems, "Swarma", a security device for women, aims to design and develop a smart GPS watch with a smart Android APP, which can track the location of the connected person and prevent sudden falls and accidents. Monitor all irregular attacks. It is also intended to create any number of defined security zones within a campus area or other location Women's safety in the current scenario is of paramount importance. With the rise of molestation and rape, safety is the number one priority. Therefore, compatible safety devices have been developed. This compatible safety device is called a smart glove that is easy to wear and use. This smart gauntlet shocks attackers without killing them. In this case, smart gloves are suitable to ensure safety. It is a portable device that is easy to carry and use. An electrical self-defense device that uses high voltage to stop attackers. Don't touch me - Safety Equipment for Women - Women's safety is a major concern in today's world. Women are subject to unethical physical harassment. Women's safety measures such as various mobile apps have been tried and implemented, but the needs of the times are devices that can be easily carried anywhere. Here, we present Touch MeNot, an idea to design a device that can be attached to clothing. It becomes a button attached to clothes. This button connects to a system consisting of her two modules, one that she can use when someone makes an unethical move, and another that she can use when she senses danger. The first module can only be used to record a short video to catch an attacker, while the second module can send your location to family and friends in times of danger, or to the nearest police station. You can use it to contact the department for help. as soon as possible. Tools used include a microcontroller, GSM and GPS modules for the hardware section, and Python for the software section..

Implementing and Evaluating Bluetooth Low Energy for Wireless Sensor Networks With the growth and enthusiasm of the IoT, power consumption and efficiency are critical to developing maintainable and reliable sensor networks. This device implements a wireless sensor network using Bluetooth Low Energy (BLE) as the communication standard and evaluates its highly viable capabilities in terms of power consumption and range. We found his BLE option for such systems that does not require long-range capability, bringing long battery life. BLE can significantly reduce energy consumption.

III. EXISTING SYSTEM

The number of cases of harassment and evening teasing of women has increased exponentially as women are exposed in all occupations. The number of physical harassment of women in schools, workplaces and even on public transport is increasing day by day. From an Indian perspective, there are mobile her apps on the market specifically developed for Android and iOS to keep women safe. Some of them even come with paid premium features that can help save lives in dangerous situations. The analysis of external sensors in mobile phones is a large research area. Some work has been done in the form of theoretical research and development in practical design. The main idea of our work focuses on mapping abnormalities on mobile surfaces and classifying different movement behaviors. Detection uses external sensors such as microphones, accelerometers, and Global System for Mobile Communications radios. However, all systems require external actions such as: B. A user working in the application.

Limitations of Existing System:
- Existing models only segregate wet and dry objects.
- Wireless sensor network is used in existing system.
- Wireless range is limited.
- There is no level of tracing in the existing system.
- No proper error indication on any validation the usage of the system.
- There was no scope for the future expansion in the present system.

IV. PROPOSED SYSTEM

For this purpose, an electric shock system is also integrated into the device at the bottom of the shoe. So girls can easily use this electric shock when they are trying to get rid of the eve teaser. Even though the exit is at the bottom of the sole and away from the foot, the impact does not affect her. When the shoe receives a call from a pre-defined phone number, it is sent through the GSM module Received automatically. Callers can hear

real-timeambientnoiseatincidentlocation Currentsystemdid nothaveroomforfutureexpansion.

V. METHODOLOGY

Here, the authors have attempted to overcome the problems that exist in the existing techniques mentioned above. The shoes presentedhereare suitable for everyday use. The best thing about this device is its compact design. All modules, power supplies and devices are imprinted on the sole, making it a practical and easy-to-use companion in every woman's daily life. This gadget alsohasapendant.

Requiredcomponents:

1. Board
2. Arduino
3. Heartbeatsensor
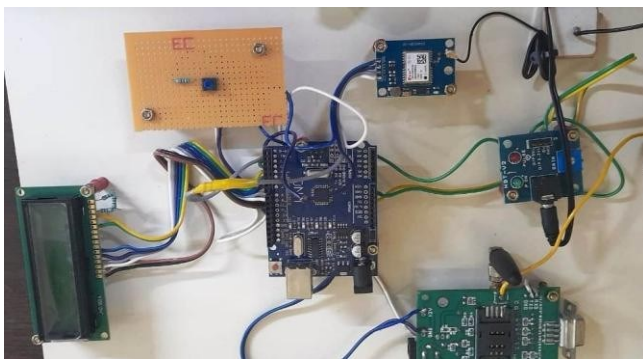4. GPSGSM
5. Battery
6. Emergencypushbutton
7. Shoe

Figure1.BlockDiagram

If a woman has a problem, she can activate the entire system by simplypressingtheswitchonthispendant.Also,sinceaswitchis addedinsidetheshoe,justpresstheswitchinsidetheshoewithyour foot. The attacker will sometimes lock her hands and close her eyes,whichisusefulifthevictimisunabletouseherhands.Asan addedlayerofsecurity,whenthevictimactivatestheswitch,the ability to automatically send a specific SMS to her 5 pre-defined phone numbers and also call pre-defined phone numbers. is integrated.Whenthevictimactivatestheentiresystem,itsends her location to an assigned phone number via text her message withlatitudeandlongitudedetails.Recipientsofthemessagecan easily track the victim's location using Google Maps [14], providing latitude and longitude data with a single click. Incidentlocationsdonotalwayshavetobeinthesamelocation. Sometimes molesters can drag their victims elsewhere. If a phonenumberassignedduringthistimesendsheranSMStothis "shoe", it will automatically navigate to her current

locationinrealtimeandsendthedetailsaslongitudeandlatitude tothisnumber.

For defensive purposes, an electric shock system was also integratedintothedeviceatthebottomoftheshoe.Sogirlscan easilyusethiselectricshockwhentheyaretryingtogetridofthe eve teaser. Even though the exit is at the bottom of the sole and away from the foot, the impact does not affect her.When the shoereceivesacallfromapre-definedphonenumber,itissent throughtheGSMmoduleReceivedautomatically.Callerscan heartheambientnoisearoundtheincidentsceneinrealtime.

VI. EXPERIMENTALRESULTSAND DISCUSSION

Asmentionedintheintroductorysection,themainpurpose of this work is to answer the question of portability and standard usage of intelligent security systems. We find that most of the devices previously proposed or designed by researchers are not user-friendly. This smart shoe can meet the needs of market-ready devices. This diagram shows a ready-to-use, off-the-shelf prototypedevice.Thepushbuttonswitches are visible in red on the soles of both shoes. No external cables, connectors or batteriesrequired.

As previously mentioned, an RF receiver was embedded in the left shoe and an RF transmitter was used to power the left shoe's circuitry. The transmitter activates as soon as the victim presses the button on the pendant. The transmitter was fixed inside a pendantlight.Anadditionalpushbuttonswitchisprovidedonthe leftshoeasshown.Ausercanactivatetheentiresystemusinghis oneoftheswitches.Whentheuserpressesthepushbuttonswitch ontheleftshoe,theshockcircuitisactivated.Anabshockprobe canbeseenonthefrontoftheleftshoe.

RESULTS:

This shoe used a 1200 V shock for self-defense. The user can activate the shock circuit by simply pressing a push button his switchonthesoleoftherightfoot.Inthediagramyoucanseethe shockheassemblybysimplyplacingthewireinfrontoftheshock circuitprobethatismountedinfrontoftherightshoe

Figure2.Designedprototypeofthesmart

VII. CONCLUSION

This women's smart safety shoe is an out-of-the-box gadget for women's daily use. To the knowledge of the two authors, there are no commercially available off-the-shelf devices that women can use for safety purposes. The device does not require such complicated charging circuitry and has no externally visible wires. The sole purpose of this work was to provide ready-to-use wearable her solutions to smart her security her devices for women.

VIII. FUTUREENHANCEMENT

In the future, you can call any number among the five pre-stored numbers. The microphone is connected to the GSM module and stamped on the left shoe, so the receiver can see where the victim is. You can easily hear the sound of the location and help the victim. Real-time Google map view of the location of the occurrence. Users can activate the shock circuit by simply pressing the push-button switch on the back of the right shoe. increase. In the diagram you can see the shock her assembly by simply placing a wire in front of the shock circuit probe that is mounted in front of the right shoe.

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