SMART BAG FOR WOMEN SECURITY

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ABSTARCT

In this project, we are presenting the design of a smart bag which provides security for women. Now a days women are highly attacked by men. Numbers of women died from past 2years. Day by day attacks onwomen are increasing for this to protect women and prevention of their Deaths we brought our project. The smart bag comprises of GSM module, GPS module, emergency switch and Arduino board. The system gets activated by pressing an emergency switch. Upon detecting alarming situation, a high intensity light starts flashing, a siren generates high pitch sound alarm, one pepper spray starts spraying peeper. Very high voltage is also produced on front part of the bag thus hurting the attacker. In the meantime, message is sentautomatically to registered numbers mentioning location and the situation.

Keywords: women security, smart bag, gobal positionsing system, gobal system and communication, Arduino board.

1.INTRODUCTION

Women are the backbone of any economically primarily shaping future of the country. She who earlier stayed at home to attend her domestic duties is now maintaining work and home simultaneously, participating in the process of economic development on an equal footing with men. The Government of India, meeting a longstanding demand for gender parity in the workforce, has approved an amendment in The Factories Act 1948 to allow women employees to work in nightshifts. Theamendment suggests that nightshift for women shall be allowed only if the employer ensures safety, adequate safeguards in the factory as regards occupational safety and health, equal opportunity for womenworkers, adequate protection of their dignity, honour and transportation from the factory premises to the nearest point of their residence are met.

Nightshifts have been in existence for a long time, however for India it was only recently through an amendment to the Factories Act 1948 that it was allowed under the law for women to work nightshifts. Women are participating in almost all the spheres of economic activity. From village to city, we can see number of women workers and entrepreneurs contributing towards the national income of the country. Garment units already employ 60% of women workforce; and with growth in this industry the number thiswill go up tremendously. So far, the IT sector were employing women for late-night work hours but had nolegal obligation to provide the above safety measures. There is no denying the fact that women in India have made a considerable progress in almost seven decades of Independence, but they still have to struggle against many handicaps and social evils in the male-dominated society. Many evil and masculine forces still prevail in the modern Indian society that resists the forward march of its women folk. With the onset of IT&BT industry, women work in night shifts. It is the responsibility of the firm to provide office transportation to such employees. Now a days even though the companies provide the facilities for transportation, but the security of the women is not fully ensured as one of the incident occurred in the year2007 at Pune where a girl working in

the call center was brutally raped by two of her cab drivers assigned by the company, not only this we have come across many of the same incidents in the recent fully ensured with the cab facilities provided by the companies.

The only solution to the problem can be taken in a such a way that, women should be assigned with a safety gadget that is portable and ensures her safety. Our project focuses on providing a Smart gadget based on IoT solutions that not only helps to woman escape the critical situations but also ensures to provide justice to the women by capturing the image of the culprit if in case any harassment occurs.

2. LITERATURE SURVEY

The recently developed solutions for the safety of women include Smartphone Applications, Intelligent Security Systems and Wearable devices. Suraksha is a security device that can be activated in three ways; a voice command, click of a button and when it is thrown with a force. Upon activation, this system sends the location of the device to preselected contacts via an inbuilt GSM module. But during times of distress, it might not always be possible for the user to carry this device in her hand. Also, the attacker might notice the device that the victim is holding. Smart Foot Device is another such security device that have security system within the sandals. It uses Bluetooth to connect to phone, so it is not feasible to use phone in panic situation.

Another security solution is mobile application. The Smartphone based solutions that exist require the user to have access to her phone as all of them are triggered by some action performed on the phone. In dangerous situations, the user might not always have the opportunity to reach for her Smartphone. Some solutions use smart such as necklaces and so on to trigger an application on the user's phone. However, these devices are distinctly noticeable and can easily be removed from the victim.

Hence, there is a need to introduce a solution that can be triggered externally but in a discreet manner without the knowledge of the perpetuator. The proposed solution does require the user to press a button on the strip of bag when in emergency. This smart device will be installed inside the user's hand bag such that attacker will not have any idea about the device which is an advantage for the user.

3. PROPOSED SYSTEM

The Internet of Things (IoT) refers to the use of intelligently connected devices and systems to leverage data gathered by embedded sensors and actuators in machines and other physical objects. IoT is expected to spread rapidly over the coming years and this convergence will unleash a new dimension of services that improve the quality of life of consumers and productivity of enterprises, unlocking an opportunity that the GSMA refers to as the 'Connected Life'.

For consumers, the IoT has the potential to deliver solutions that dramatically improve energy efficiency, security, health, education and many other aspects of daily life. For enterprises, IoT can underpin solutions that improve decision-making and productivity in manufacturing, retail, Agriculture and other sectors..

Objects around us have been connected for decades. Devices like TV remote controls and garage door openers have been part of our domestic landscape for generations. Industrial applications of these technologies—for example, through remote monitoring and control of production—are also nothing new. In fact, even the phrase "Internet of Things" is not a recent invention; it was coined around twenty years ago.

However, recent developments in both networks and devices are enabling a much greater range of connected devices and Internet of Things (IoT) functionalities. Today, the phrase "Internet of Things" refers to the world of smart connected objects and devices. Gone is the remote control,

replaced by an intelligent device that will automatically fulfill its task based on its analysis of user behavior. All of this is made possible by the miniaturization of electronic devices, accompanied by a huge increase in the availability of internet connectivity.

IoT describes a system where items in the physical world, and sensors within or attached to these items, are connected to the Internet via wireless and wired Internet connections. These sensors can use various types of local area connections such as RFID, NFC, Wi-Fi, Bluetooth, and ZigBee. Sensors can also have wide area connectivity such as GSM, GPRS, 3G, and LTE.

As the Internet of Things evolves, we can see an increase of smart connected devices supported by mobile networks, providing seamless connectivity, will unlock opportunities to provide life-enhancing services for consumers while boosting productivity for enterprises. Figure below, shows thirteen industry sectors where in significant adoption of IoT services are going to take place

In cities, the development of smart grids, data analytics and autonomous vehicles will provide an intelligent platform to deliver innovations in energy management, traffic management and security, sharing the benefits of this technology throughout society.
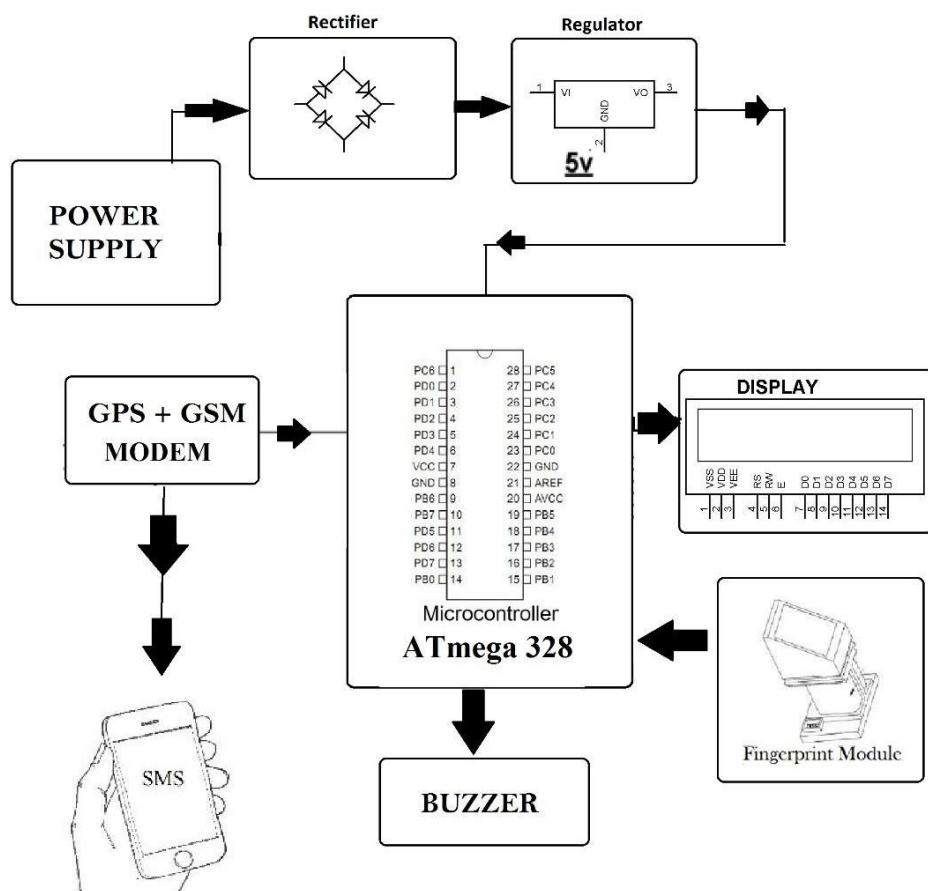
3.1: PROPOSED SYSTEM

FIGURE 1 : PROPOSED SYSTEM

The Devices

Over the past few decades, researchers and industry players have developed Micro-Electro-Mechanical Systems (MEMS). These are miniaturized structures, sensors, actuators and

microelectronics, the sizes of which range from microns to several millimeters. Micro sensors and micro actuators are categorized as "transducers," which are defined as devices that convert energy from one form to another. In the case of micro sensors, the device typically converts a measured mechanical signal into an electrical signal.

These new microelements are very powerful: for example, researchers have placed small micro-actuators on the leading edge of airfoils of an aircraft and have been able to steer the aircraft using only these devices. Ultimately, miniaturization will allow any object to be connected, which could have substantial positive impacts for persons with disabilities as more and more products can be controlled from accessible computing platforms. The number of connected devices is set to explode from 4.9 billion this year, according to the Gartner Group, to 25 billion or even 50 billion by 2020

The Network

As important as these advancements in microelectronics are, the Internet of Things refers not just to devices, but also to the connections between them. For IoT applications to work, the sensors and the actuators must be able to communicate with the devices that inform their action, whether it is a smartphone or something as simple as a remote thermometer.

Communication between devices can be established by a variety of different modes, including radio signals, Bluetooth (for devices in close proximity) or an Internet connection (Wi-Fi and wireless broadband for a wider range of communication and for video). And, as our wired and wireless networks reach more and more people*, the potential applications for the Internet of Things will continue to expand.**The Applications**

New IoT applications are being introduced to the market every day. While IoT applications are expected to penetrate into many activities—both consumer and industrial—smart home applications seem to be the fastest growing segment. Connected home devices are expected to comprise 25% of all Internet of Things devices shipped this year, according to BI Intelligence, a market currently valued at $61 billion and expected to jump to $490 billion by 2019.

Many of these, as the next section discusses, have potential to improve quality of life for persons with disabilities. Home automation applications and security systems are an obvious example of this. Other examples include self-driving cars that identify traffic and obstacles and remote medical monitoring that makes access to care available to more people in more places.

4. RESULTS
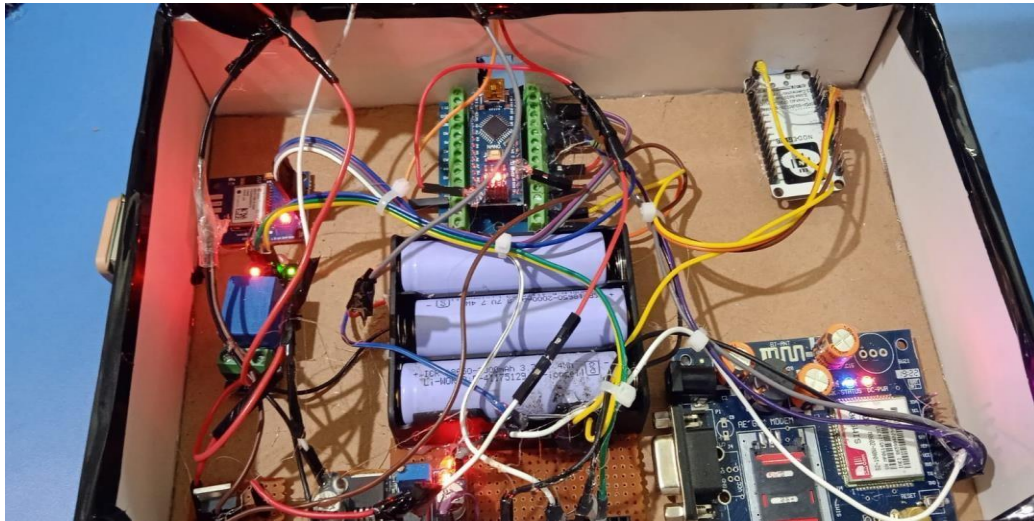
5. CONCLUSION

The main goal of creating a woman protection device is to act as a rescue and avoid any harm to women in the event of a hazard. A smart device for women's protection is planned using the proposed system, which automates the emergency warning system. This device detects and sends warnings to lovedones with the women's position coordinates without requiring her intervention in critical situations. It immediately sends an emergency alert to the family members and the nearest police station. The prototypecan be carried in a variety of bags, including handbags and laptop bags. Carrying the prototype in these bags is recommended because the individual attempting to injure you might not be aware of your presence.

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