



INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGHTS (IJCRT)

An International Open Access, Peer-reviewed, Refereed Journal

WOMEN SAFETY SYSTEM USING IOT AND GPS

K. SENTHIL KUMAR¹, P. MOULIKA², R. MONISHA³, A. KEERTHIKA⁴
1 ASSISTANT PROFESSOR, 2,3,4 UG STUDENT
COMPUTER SCIENCE AND ENGINEERING
V.S.B. ENGINEERING COLLEGE, KARUR, TAMILNADU, INDIA

ABSTRACT

The world is getting unsafe for women in all aspects. The crimes against women are adding at an advanced rate. The employed women are feeling unsafe due to adding crimes. This paper proposes a quick responding medium that helps women during trouble. This paper covers descriptive details about the design and perpetration of "Smart band". The device consists of a detector, microcontroller(ATmega328), IoT Module (ESP- 8266), GPS module(Neo-6M), tazer, Buzzer and wobbling Sensor. In this design, when a woman senses peril she has to hold ON the detector of the device. Once the device is actuated, it tracks the current position using GPS (Global Positioning System) and shoot to the IoT Module to the update the pall and near police station. IoT module is used to track the position continuously and modernize into the webpage. Tazer will produce on-lethal electric shock in exigency situations to descry the bushwhacker, buzzer is used as an alarm to warn the near people so that they may understand that someone is in need and vibrating sensor will shoot the last position in case if the device gets defected. The main advantage of this design is that this device can be carried far and wide since it's small.

Keywords: Iota Module, Bluetooth protocol and SMS alert

1. INTRODUCTION

India which sees itself as a promising super power and a profitable mecca can achieve its thing if and only if a large figures of women share in the development process. This paper presents an analysis review on the top need of intelligence security system with technology demand and challenges to make the system. Since the vaticination of similar incident isn't possible hence to minimize the possibility of physical

violence (thievery, sexual assaulted.) by keeping all the help tools ready to safely escape from violent situation. This reduces threat and brings backing when demanded. The social networking is the part of our life and also a source for women importunity by uploading the obnoxious snap taken by retired cameras, indeed though these cases might be with innocence males, in some similar cases these guys end their life by committing a self-murder. The de facto prophet of United Nation Ban Ki- Moon, stated that "There's one universal verity applicable to all countries, societies and community's violence against women is no way respectable, no way condonable, and no way tolerable". The report of WHO states that. "A violence act against womanish gender disturbed the public health life of society and also it violates the mortal rights of women.

This paper proceeds as follows. In Section 2 present the study of several being systems with its functionality. Section 3 analyses the present systems critically grounded on cost factor. In Section 4 presents the proposed model. Section 5 discusses the working of proposed model. In Section 6 discusses the Working of Prototype developed. In section 7 the future compass of the proposed system is banded. And eventually in section 8 presents the conclusions of this paper. The world is getting unsafe for women in all aspects. The crimes against women are adding at an advanced rate. The employed women are feeling unsafe due to adding crimes. This paper proposes a quick responding medium that helps women during trouble. When someone is going to kill, she can press the button that's attached to the device and the position information is transferred as an SMS alert to many predefined exigency figures in terms of latitude and longitude.

Indeed, in this ultramodern period women are feeling insecure to step out of their house because of adding crimes in our country like importunity, abuse, violenceetc., The commercial and IT sector are presently in smash. numerous women are working in

commercial indeed in night shifts. There's a feeling of instability among the working women. The proposed device is more like a safety system in case of exigency. This device can be fitted in a jacket (analogous to a blazer for women). It's an easy to carry device with further features and functions. The exigency drive button is held to one of the buttons of the jacket. The main purpose of this device is to insinuate the parents and police about the current position of the women. A GPS system is used to trace the current position of the victim.

2. LITERATURE SURVEY

Haoran Ren, et al proposed “A Novel Cardiac Auscultation Monitoring System Based on Wireless Sensing for Healthcare” IEEE of Translational Engineering in Health and Medicine – 2018

In this being paper, a new wireless seeing system to cover and dissect cardiac condition is proposed, which sends the information to the caregiver as well as a medical guru with an operation of the Internet of effects(IoT). An intertwined system for heart sound accession, storehouse, asynchronous analysis has been developed, from scrape to information uploading through IoT and signal analysis. Cardiac auscultation seeing unit has been designed to cover cardiovascular health of an existent. Bluetooth protocol is used to offer power effectiveness and moderate data transmission rate. The Hilbert- Huang transfigure is used to exclude hindrance signals and to help to prize the heart sound signal features. Subsequence segmentation algorithm grounded on double- threshold has been developed to prize physiological parameters

Haibin Zhang et al proposed “Connecting Intelligent Things in Smart Hospitals using NB-IoT” IEEE Internet of Things Journal - 2018

They've enforced use of Internet of effects(IoT), especially smart wearables, will play an important part in perfecting the quality of medical care, bringing convenience for cases and perfecting the operation position of hospitals. still, due to the limitation of communication protocols, there exists non unified armature that can connect all intelligent effects in smart hospitals, which is made possible by the emergence of the Narrowband Iota (NB- IoT). In light of this, we propose an armature to connect intelligent effects in smart hospitals grounded on NB- IoT, and introduce edge computing to deal with the demand of quiescence in medical process. As a case study, we develop an infusion monitoring system to cover the real-time drop rate and the volume of remaining medicine during the intravenous infusion. Eventually, we bandy the challenges and unborn directions for erecting a smart

sanitarium by connecting intelligent effects.

Haoran Ren, et al proposed “A Novel Cardiac Auscultation Monitoring System Based on Wireless Sensing for Healthcare” IEEE of Translational Engineering in Health and Medicine – 2018

In this being paper, a new wireless seeing system to cover and dissect cardiac condition is proposed, which sends the information to the caregiver as well as a medical guru with an operation of the Internet of effects(IoT). An intertwined system for heart sound accession, storehouse, asynchronous analysis has been developed, from scrape to information uploading through IoT and signal analysis. Cardiac auscultation seeing unit has been designed to cover cardiovascular health of an existent. Bluetooth protocol is used to offer power effectiveness and moderate data transmission rate. The Hilbert- Huang transfigure is used to exclude hindrance signals and to help to prize the heart sound signal features. Subsequence segmentation algorithm grounded on double- threshold has been developed to prize physiological parameters

Malcolm Clarke et al proposed “Interoperable End-to-End Remote Patient Monitoring Platform based on IEEE 11073 PHD and ZigBee Health Care Profile” - IEEE Transactions on Biomedical Engineering – 2018

This being paper described the perpetration of an end to- end remote monitoring platform grounded on the IEEE 11073 norms for Personal Health bias(PHD). It provides an overview of the generalities and approaches and describes how the standard has been optimized for small bias with limited coffers of processor, memory and power and that use short range wireless technology. It explains aspects of IEEE 11073, including the Domain Information Model, state model and title, and how these support its draw- and- play armature.

3. SYSTEM DESIGN

3.1 EXISTING SYSTEM

In this paper, we survey online pitfalls to children in the gaming terrain and present the limitations of being results that address the threats. We also aimed to present the challenges that ML ways face in guarding children against raptorial geste by presenting a methodical review of the available ways in the literature. thus, this analysis provides not only recommendations to stakeholders to develop programs and practices that guard children when gaming, but also to the gaming assiduity to continue furnishing

applicable measures for a safe and amusing gaming terrain.

3.2 PROPOSED SYSTEM

In this design, when a woman senses peril she has to hold ON the detector of the device. Once the device is actuated, it tracks the current position using GPS (Global Positioning System) and sends position to IoT via pall. IOT module is used to track the position continuously and modernize into the webpage. Tazer will produce on-lethal electric shock in exigency situations to attack the abuser, once accelerometer and heart beat detector gets tasted, it tracks the current position using GPS (Global Positioning System) and sends position to IoT via pall. This design presents an alert system for problem discovery using common commercially available electronic bias for both to descry the problem and alert authorities with an intertwined tri-axial accelerometer. However, roundly, If the person is in dangerous condition they've to shake the smart band above the threshold value. incontinently a communication alert is shoot to the person's mama, pater and also for their guardians, indeed though if it's in silent mode.

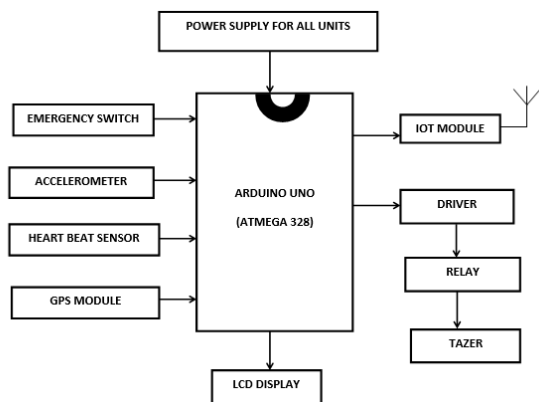


Fig: 1 BLOCK DIAGRAM

4. DESCRIPTION OF HARDWARE COMPONENTS

- Power Supply
- Transformer
- Rectifier
- Smoothing
- Regulator
- Heart Beat Sensor
- Panic Switch
- Accelerometer

5. RESULTS AND DISCUSSION

The Women safety operation design is to design and fabricate a contrivance which is so compact in itself

that give advantage of particular security system the exigency response system which is helpful for women in the incidents of crime. It's low cost system which can store the data of the members in the particular position and give immediate alert in case of crime against women. This provides women security. Being safe and secure is the demand of the day. The women safety device is able of securing her in a torture situation. It provides immediate update to IoT to the near police station and parent which can veritably critical terrain. The family member can detect their women and take necessary action to deliver the women from peril. The safety device can be enhanced much more in the future by using largely compact IoT modules.

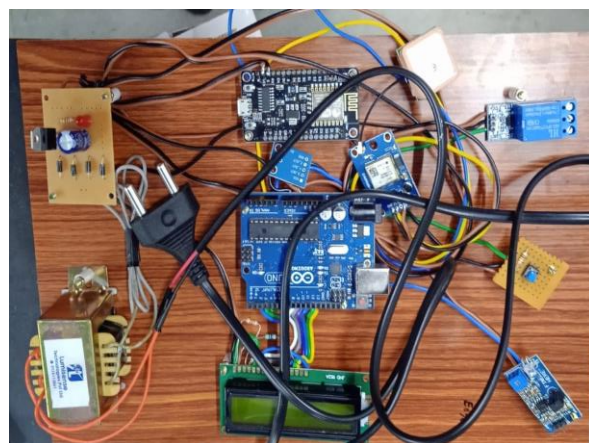


FIG.2 HARDWARE OF WOMEN SAFETY

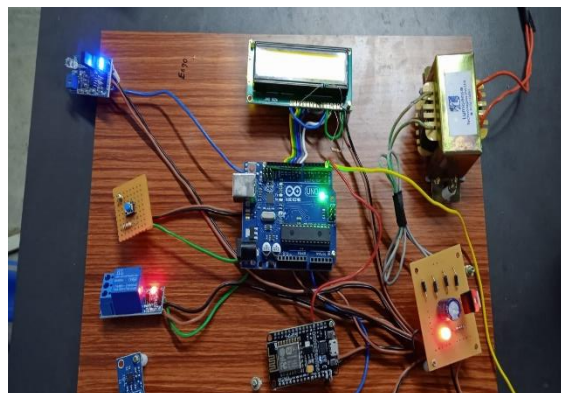




FIG.3 OUTPUT OF THE WOMEN SAFETY

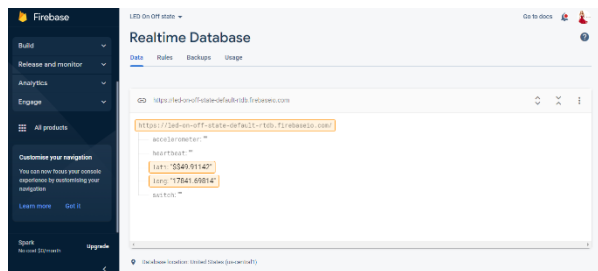


FIG.4 FIREBASE GPS LOCATION OF WOMEN SAFETY

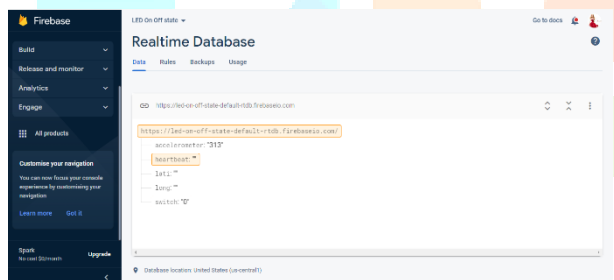


FIG.5 FIREBASE RESULT OF WOMEN SAFETY

6. CONCLUSION

Being safe and secure is the demand of the day. Our trouble behind this design is to design and fabricate a contrivance which is so compact in itself that give advantage of particular security system. This design will deal with utmost of the critical issues faced by women and will help them to be secure. Being systems give the medium to track the vehicle but no other exigency medium is proposed. The proposed medium provides viewing the position of the victim in terms of latitude and longitude which can further be tracked using Google charts. This system helps to drop the crime rate against women. Women’s security is a critical issue in current situation.

These crimes can be brought to an end with the help of real time perpetration of our proposed system.

7. REFERENCES

[1] UN News. Violence Against Women a Barrier to Peaceful Future for All. Accessed: Jun. 15, 2020. [Online]. Available: <https://news.un.org/en/story/2019/11/1052131>

[2] 10 Safety Apps for Women. Accessed: Jun. 16, 2020. [Online]. Available: <http://www.businessworld.in/article/10-Safety-Apps-For-Women/12-06-2018-151793/>

[3] Orange the World_Apps for Women’s Safety in India. Accessed: Jun. 15, 2020. [Online]. Available: <https://thecsrjournal.in/orange-the-world-apps-for-women’s-safety-in-India/>

[4] Safelet_The SOS-Bracelet. Accessed: Jun. 6, 2020. [Online]. Available: <https://safelet.com/>

[5] Spotsave: Your Ultimate Guarded Security Device. Accessed: Jun. 16, 2020. [Online]. Available: <https://www.indiegogo.com/projects/spotsave-your-ultimate-guarded-security-device>

[6] E. Brooke. Meet Siren, a Ring Designed to Prevent Assault_Fashionista. Accessed: Jun. 16, 2020. [Online]. Available: <https://fashionista.com/2014/10/siren-ring>

[7] C. M. Carter. Meet the Millennial Who Created Athena, A Safety Wearable for the 21st Century. Accessed: Jun. 16, 2020. [Online]. Available: <https://www.forbes.com/sites/christinecarter/2017/08/28/meetthe-millennial-who-created-athena-a-safety-wearable-for-the-21stcentury/>

[8] A. Sciarretto. This Charm Could Save You from Assault. Accessed: Jun. 16, 2020. [Online]. Available: <https://www.bustle.com/articles/56441-stiletto-security-charms-could-prevent-assault-by-providing-a-discreet-way-to-call-911-if-youre>

[9] Sonata ACT_The Safety Watch for Women. Accessed: Jun. 16, 2020. [Online]. Available: <https://www.titancompany.in/news/sonata-act-safetywatch-women>

[10] Wearable Technologies for Safety. Accessed: Jun. 16, 2020. [Online]. Available: https://aim2_ourish.com/innovations/wearable-technologiesfor-safety