IOT BASED WOMEN SAFETY GADGET

Asst.Prof.A.R.Deshmukh, Kajal Bhagwat[1], Shivdeep Mohite[2], Payal Sawant[3].
KJ'S TRINITY COLLEGE OF ENGINEERING AND RESEARCH

ABSTRACT –
Women safety has been highlighted as one of the major concerns of any society where several women are dealing with various safety issues like harassment, rape, molestation, and domestic violence due to different social or cultural reasons. Internet of Things (IoT) is becoming a promising technology to support day-to-day concerns and provide support in handling various affairs. Many IoT-based devices have been introduced by the community to help women deal with their potential safety threats. This study presents a systematic literature review of research studies exhibiting the IoT devicesfor women's safety, the main features these devices offer as well as the wearable, sensors used.

KEYWORDS-
GPS, GSM, ESP 32 , Push Buttons, safety and security enhancement.

1. INTRODUCTION
Introducing an IOT based womens safety gadget : a discreate ,powerful tool designed to enhance security with features like real-time tracking, distress signalling, and audio, video recording , it ensures peace of mind for women navigating their daily lives. Emprovement safety all at the touch of the button.Women are the most important part of a country and safety of women is our priority. The only solution to make women safe that is women should be assigned with the safety device that is portable and ensures her safety. Our project focuses on improving women safety and also helps in self-defence**.**

2. PROPOSED SYSTEM
The system design comprises of Power Supply, ESP 32, GSM Module, GPS Neo 6m Module, Push Button, , and Buzzer. In the proposed system we here designed equipment for alerting the system. In this project we here used the ESP 32 controller for the controlling the whole process of the system. The GSM is used to send SMS regarding GPS locations. switch is pressed when the person is in danger. Here we are adding Buzzer Laser Diode which will activate when the women press the switch.

3. LITERATURE SURVEY

Sr. No.	Paper Name	Authors	Publication Year	Conclusion
01	SURVEY ON WOMEN SAFETY DEVICES	Ramya K1, Vimal T2	2020	Today in the current global scenario, women feel less secure to go outside. They are facing so many consequences in this independent world. Here, we are focusing on a scenario where the women walking alone in the road faces harassment either from the front or backside during day or night time. When they feel insecure, their heartbeat increases which can be measured by the

				pulse sensor and their stress level is monitored
02	Design of a Smart Safety Device for Women using IoT	Wasim Akram, Mohit Jain.	2019	It is not safe anywhere and are most vulnerable when traveling alone into lonely roads and deserted places. We propose a solution which will try to overcome the disadvantages of the existing systems and also aim at providing false proof safety to women
03	Analysis of Women Safety in Indian Cities Using Machine Learning on Tweets	\Deepak Kumar1, Shivani Aggarwal2	2019	This research paper basically focuses on the role of social media in promoting the safety of women in Indian cities with special reference to the role of social media websites and applications including Twitter platform Facebook and Instagram
04	Survey on women safety using IoT	B.Sindhu Bala1, M.Swetha2,M.Tamilarasi 3 and D.Vinodha4	2018	Nowadays women are facing many security problems in the society. In such cases, they feel handicap and need help to protect them. When the women face into unsecured situations, to ensure the safety, automatic detection system needs to establish
05	An IoT Based wearable device for women safety	B.Sindhu Bala1, M.Swetha2,M.Tamilarasi 3 and D.Vinodha4	2020	It has been observed that using smart phone to ensure safety in the case of emergency is not feasible .Thus ,the project Rakshak can be used as a wearable device for women safety which not only overcomes the problem and inconvenience of using a smart phone by using voice activation but also makes sure to store evidence for further legal proceeding along with common features like location tracking & SOS message sending.

3.1   IMPORTANCE OF IOT BASED WOMEN SAFETY GADGET

The purpose of the system this device is to safeguard women in the event they might face any danger. The device uses wireless sensor network to communicate and to send alert to them, The GPS and GSM are used to share the user's location directly to the relevant authorities and saved contacts.

3.2   DESIGN METHODOLOGY

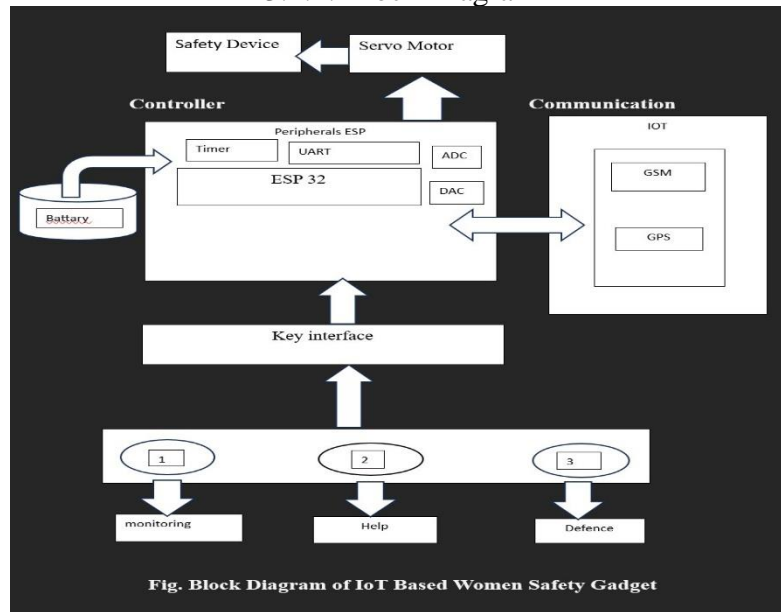### 3.2.1. Block Diagram

Fig. Block Diagram of IoT Based Women Safety Gadget

Figure 1. Block Diagram3.2.2.

ESP32

ESP32 is a series of low-cost, low-power system on a chip microcontrollers with integrated Wi-Fi and dual-mode Bluetooth. The ESP32 series employs either a Tensilica Xtensa LX6 microprocessor in both dual-core and single-core variations, Xtensa LX7 dual-core microprocessor or a single-core RISC-V microprocessor and includes built-in antenna switches, RF balun, power amplifier, low-noise receive amplifier, filters, and power-management modules. ESP32 is created and developed by Espressif Systems, a Chinese company based in Shanghai, and is manufactured by TSMC using their 40 nm process.[2] It is a successor to the ESP8266 microcontroller..

4. CONCLUSION

• The proposed design will help women to deal with the critical issues faced by them and therefore it will also help to reduce the crime rates against women .

• By sending location it is easier to help a needy woman.

• So this system can overcome the fear that scares every woman in the country about her safety and security.

5. REFERENCES

[1] Premkumar.P, CibiChakkaravarthi.R, Keerthana. M, Ravivarma. R, Sharmila. "ONE TOUCH ALARM SYSTEM FORWOMEN'SSAFETY USING GSM" International Journal of Science Technology & Management, 2015 March.

[2] Nishant Bhardwaj and Nitish Aggarwal Design and Development of "SURAKSHA"-A Women Safety Device International Journal of Information & Computation Technology, ISSN 0974-2239 Volume 4, Number 8 (2014), pp. 787-792

[3] B.Vijaylashmi, Renuka.S, PoojaChennur, Sharangowda.Patil. "SELF DEFENSE SYSTEM FOR WOMEN SAFETY WITH LOCATION TRACKING AND SMS ALERTING THROUGH GSM NETWORK" International Journal Research in Engineering And Technology (IJARTET), 2015 May.

[4] Dongare Uma, Vyavahare Vishakha and Raut Ravina, "An Android Application for Women Safety Based on Voice Recognition", Department of Computer Sciences BSIOTR wagholi, Savitribai Phule Pune University India, ISSN 2320–088X International Journal of Computer Science and Mobile Computing (IJCSMC) online at www.ijcsmc.com,Vol.4 Issue.3, pg. 216-220, March- 20156

[5] MAGESH KUMAR.S and RAJ KUMAR.M, "IPROB – EMERGENCY APPLICATION FOR WOMEN", Department of Computer science Sree Krishna College of Engineering Unai village Vellore (TN) India, ISSN 2250- 3153 International Journal of Scientific and Research Publications, online at the link www.ijsrp.org , Volume 4, Issue 3, March 2014.

[6]. "Women's Wearable Security and Safety Device", S K Anisha, S. Chandana, J.J. Teresa, S. Varma, M N Thippeswamy, International Journal of Recent Technology and Engineering (IJRTE), ISSN: 2277- 3878,Volume 9 Issue – 4, November 2020.

[7]. "Women Self Security System Using AWS and IOT", M. Sairam, D. Nikita, G. Rajesh, P. Shyam Sandesh, International Journal of Engineering Applied Sciences and Technology, ISSN:2455-2143, Volume4, Issue 11, March 2020.

[8]. "Enhancement of Women Safety using RASPBERRY PI", B. Aarthi, M. Abirami, R. Sangeetha N. Sri Alamelu Mangai, L Kalaivani, M. Gengaraj, International Journal of Innovative Technology and Exploring Engineering (IJITEE), ISSN:2278- 3075, Volume-9 Issue-7, May 2020.

[9]. "Hiding Security System for Alone Women by Using GSM and GPS", K. Tirupathaiah, P. Vyshnavi,M. Bhavani, S. Ajay Kumar, Mahesh Kumar, Juni Khayat (UGC Care Group I Listed Journal) ISSN:2278- 4632, Vol-10 Issue-7 No.11 July 2020.