## **IJARSCT**



International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)

Volume 2, Issue 2, April 2022

# Wearable Device for Women Safety and Defence

#### Sanila K and Dr. Sindhu R

Department of Electronics and Communication Engineering NSS College of Engineering, Palakkad, Kerala, India

**Abstract:** Women are the most integral part of any economy primarily. Many crimes against them are not being reported because of society's hypocritic point of view. Various types of humiliations and mistreatment arebeing faced by the victims who try to report their assaultsfrom society. Only one of four cases lead to conviction trails in India. In this project, a smart device for women'ssafety which automates the emergency alert system by using pressure sensor, pulse-rate sensor and Gyroscope sensor to detect a possible atrocity automatically. The system also have manual system with a push button which can be press by the women in critical situation, butduring panic situation it is not possible to press the push button. The automatic system help in this situation. A GSM and GPS system is used in order to alert about the unusual situation and location to the relatives and police, image of attacker also sent to police by a camera system which helps to identify the criminal. Another module of shock system is implemented along with the system. A cancel button is also added to avoid false message to the authorities.

#### **Keywords:** Wearable Device

#### REFERENCES

- [1]. V. Hyndavi, N. Sai Nikhita, S. Rakesh, Smart Wearable Device for Women Safety Using IoT, International Conference on Communication and Electronics Systems, IEEE 2020.
- [2]. S. Vahini, N. Vijaykumar, Efficient tracking for women safety and security using IoT, International Journal of Advanced Research in Computer Science, Volume 8, No. 9, November-December 2017.
- [3]. S. A. More, R. D. Borate, S. T. Dardige, S. S. Salekar, Prof. D. S. Gogawale, Smart Band for Women Security Based on Internet of Things (IOT), International Journal of Advance Research in Science and Engineering, Volume No 6,Issue No. 11, November 2017.
- [4]. Naeemul Islam, Md. Anisuzzaman, Sikder Sunbeam Islam, Mohammed Rabiul Hossain, Abu Jafar Mohammad Obaidullah Design and Implementation of Women Auspice System by Utilizing GPS and GSM. 2019 International Conference on Electrical, Computer and Communication Engineering (ECCE),7-9 February, 2019.
- [5]. B. Vijaylashmi, Renuka. S, Pooja Chennur, Sharangowda. Patil, Self defence system for women safety with location Tracking and SMS alerting through GSM network. IJRET: International Journal of Research in Engineering and Technology, 2015.
- [6]. Prof. R.A. Jain, Aditya Patil, Prasenjeet Nikam, Shubham More, Saurabh Totewar, Smart Self-Defense Gadget For Women's safety using IOT. Vol: 04 Issue: 05—May- 2017.
- [7]. Dr. Sridhar Mandapati, Sravya Pamidi, Sriharitha Ambati," A Mobile based Women Safety Application (I Safe App)". Vol 17, Issue 1, Ver. I Jan Feb. 2015.
- [8]. 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.
- [9]. Safety Apps for Women.Accessed:Jun.16, 2020.[Online]. Available: http://www.busines sworld.in/article/10-Safety-Apps for women/12-06-2018-151793/
- [10]. Orange the World\_Apps for Women's Safety in https://thecsrjournal.in/orange- theworld-apps-for-womens-safety-in-india/
- [11]. Safelet The SOS-Bracelet. Accessed: Jun.6,2020.[Online]. Available: https://safelet.com/
- [12]. Spotnsave: Your Ultimate Guarded Security Device. Accessed:Jun. 16, 2020. [Online]. Available: https://www.indiegogo.com/projects/spotnsave-your-ultimate.
- [13]. E. Brooke. Meet Siren, a Ring Designed to Prevent Assault\_Fashionista.Accessed: Jun. 16, 2020. [Online]. Available: https://fashionista.com/2014/10/siren-ring

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- [14]. 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/meetthemill ennial-who-created-athena-a-safetywearable for-the-21stcentury/4c991be2c06d
- [15]. A. Sciarretto. This Charm Could Save You From Assault. Accessed:Jun. 16, 2020. [Online]. Available: https://www.bustle.com/articles/56441-stiletto-security-charm..
- [16]. Sonata ACT\_The Safety Watch for Women. Accessed: Jun. 16, 2020.[Online].Available:https://www.titancompany.in/news/sonata-act-safetywatch-Women
- [17]. Wearable Technologies for Safety. Accessed: Jun. 16, 2020. [Online]. Available: https://aim2\_ourish.com/innovations/wearab le-technologiesfor-safety
- [18]. Wearable Panic Button&Safety Button. Accessed: Jun. 16, 2020. [Online]. Available: https://revolar.com/
- [19]. Sound Grenade a Non-Violent Device for Personal Safety. Accessed: Jun. 16,2020. [Online]. Available: https://theorion.com/555 13/news/sound-grenade-a-non-violent-device-for-personalsafety/
- [20]. ESP32-WROOM-32D & ESP32 WROOM-32U, Datasheet, Espressif Syst., Shanghai, China, 2018.
- [21]. SIM808 SIMCom GSM/GPRSCGNSS Module Product Speci\_cations, SIMcom Wireless Solutions, Shanghai, China, 2020.
- [22]. A. Rastogi, S. Sridhar, and R. Gupta,"Comparison of different spatial interpolation techniques to thematic mapping of socio-economic causes of crime against women," in Proc. Syst. Inf. Eng. Design Symp. (SIEDS),Charlottesville, VA, USA, Apr. 2020, pp.1\_6.
- [23]. S. A. More, R. D. Borate, S. T. Dardige, S. S. Salekar, Prof. D. S.Gogawale "Smart Band for Women Security Based on Internet of Things (IOT)" International Journal of Advance Research in Science and Engineering, Volume No 6,Issue No. 11, November 2017.
- [24]. Mohamad Zikriya, Parmeshwar M G, Shanmukayya R Math, Shraddha Tankasali, Dr. Jayashree D Mallapur "Smart Gadget for Women Safety using IoT (Internet of Things)" International Journal of Engineering Research & Technology (IJERT), ISSN: 2278-0181, NCESC 2018 Conference Proceedings.
- [25]. Naeemul Islam, Md. Anisuzzaman, Sikder Sunbeam Islam, Mohammed Rabiul Hossain, Abu Jafar Mohammad Obaidullah "Design and Implementation of Women Auspice System by Utilizing GPS and GSM". 2019 International Conference on Electrical, Computer and Communication Engineering (ECCE), 7-9 February, 2019
- [26]. Remya George, Anjaly Cherian. V, Annet Antony, Harsha Sebestian, Mishal Antony, Rosemary Babu. T "An Intelligent Security System for Violence against Women in Public Places". International Journal of Engineering and Advanced Technology (IJEAT) ISSN: 2249 8958, Volume-3, Issue-4, April 2014.
- [27]. B.Vijaylashmi, Renuka.S, Pooja Chennur, Sharangowda.Patil "Self defence system for women safety with location Tracking and SMS alerting through GSM network". IJRET: International Journal of Research in Engineering and Technology eISSN: 2319-1163 | pISSN:2321-7308.
- [28]. D. G. Monisha, M. Monisha, G. Pavithra, and R. Subhashini," Women Safety Device and Application-FEMME". Vol 9(10), Issue March 2016.
- [29]. Dr. Sridhar Mandapati, Sravya Pamidi, Sriharitha Ambati," A Mobile-based Women Safety Application". Vol 17, Issue 1, Ver. I(Jan Feb. 2015).
- [30]. Deepak Sharma, Abhijit Paradkar "All in one Intelligent Safety System for Women Security". Vol 130 No.11 November 2015.
- [31]. Prof. R. A. Jain, Aditya Patil, Prasenjeet Nikam, Shubham More, Saurabh Totewar," Women's safety using IOT ".Vol: 04 Issue: 05| May-2017.
- [32]. Strauss, Marc D. HandWave: design and manufacture of a wearable wireless skin conductance sensor and housing. Diss. Massachusetts Institute of Technology,
- [33]. S. Lee, K. Mase, "Activity and location recognition using wearable sensors", IEEE Pervasive Computing, pp. 24-32, 2002.
- [34]. Emil Jovanov, Amanda O'Donnell lords, Dejan Raskovic, G. Paul Cox, Reza Adhami, Frank Andrasik, "Stree Monitoring Using Distributed Wireless Intelligent Sensor System Quantifying Stress Levels Based on Measures of Heart-Rate Variability Using Reliable High Precision Instrumentation and Synchronized Measurements", IEEE Engineering in Medicine and Biology, pp. 49-55, 2003.

DOI: 10.48175/IJARSCT-3337