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Rakshak- A Smart Women Safety Android Application

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ABSTRACT: This Our project makes women feel safer. Just shake your phone, and it becomes a signal for help. It uses smart GPS and quick alerts to get assistance fast. It's not just basic – our project also understands when something's wrong without you saying it. The emergency button isn't just a button; it sends out messages quickly to people you trust. In a world where everyone does the same thing, our project is different. Let's create a world where women move with confidence – where a simple shake means safety is right there with them. We focus on the proposed model that can be used to deal with the problem of security issue of women using GPS based tracking system. But here's the cool part – it's not just a regular hero. It's a superhero with superpowers! It can sense when things aren't right without you even saying it. The emergency button isn't just a button; it's like a magic wand that shoots out messages to your trusted allies. In a world where everyone is a superhero, our project is the caped crusader breaking the mold. Let's paint a picture where women strut with superhero confidence – where a simple shake unleashes a forcefield of safety and every step is a unique adventure.

KEYWORDS: Women's Security, Shake for help, Smart GPS, Quick Alerts, Security issue, Confidence, Superhero, Super Powers, Unique Adventure.

I. INTRODUCTION

In a world where women exhibit unparalleled prowess in uniting diverse groups for a shared cause, the paramount importance of safeguarding their well-being cannot be overstated. Recognizing that physical strength may not always be on their side, especially in emergency situations, extends a clarion call for providing them with adequate protection. Picture this: a helping hand in times of crisis, a solace for those who may not be as physically robust. To fortify their safety, we delve into a realm where identifying and summoning resources become second nature, significantly diminishing the specter of violent crimes that disproportionately affect them. As we navigate through a society that sometimes fails to shield its daughters, recent events, like the resonating outrage in Delhi, serve as a stark reminder of the prevalent safety issues. In response, individuals are rallying in unique ways, and technology emerges as a potent ally. Enter a new era of safety, where specially crafted apps become the modern-day guardians, not just for students on campuses but for every woman seeking assurance in the face of uncertainty. These innovative applications, born out of societal awakening, transcend the traditional boundaries. Their purpose expands beyond mere personal safety; they serve as beacons of awareness during critical situations. Picture an app designed not just to provide security but to instill a heightened sense of awareness. The uniqueness lies not only in activating emergency contacts but in the seamless integration of user-initiated distress signals. A simple press of a button sets forth a ripple effect, generating a distress signal (SOS) and notifying pre-saved contacts with a precise location. In essence, this app is a testament to proactive security, a digital ally empowering women in times of need. It's not just a safety net; it's a personalized guardian, standing against the backdrop of societal challenges. Join us in embracing this innovative narrative, where every tap on a screen echoes a commitment to the safety and empowerment of women.

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II. METHODOLOGY

Android, powered by the robust Linux kernel, stands as the foremost mobile OS. A brainchild of the Google team, it opens doors to a world where Java becomes the language of innovation. Our current system thrives on the dynamic Android platform. Setting itself apart, Android employs a custom virtual machine, a masterpiece optimizing the delicate dance between memory and hardware resources on smartphones. Here, there's no hierarchy; core applications and third-party gems enjoy equal access to the phone's capabilities. Android isn't just an OS; it's the orchestrator of an ecosystem, where every line of code paints a unique stroke in the evolving canvas of technology.

A. Existing Systems

1. RAKSH– In the cosmos of women's safety, behold a quartet of technological guardians, each wielding a unique prowess. RAKSH– WOMEN SAFETY ALERT stands as a beacon, not just sharing your location with a click but orchestrating a distress signal, a resonant buzzer reaching out to trusted contacts, even in the absence of data, through the art of SMS.
2. GLYMPSE – SHARE GPS LOCATION, born on January 28, 2015, emerges as the nimble maestro. It dances freely, sharing real-time GPS coordinates without the shackles of sign-ups or contact management. A swift, free, and straightforward solution for weaving a tapestry of connection with friends and family.
3. Enter GUARDLY, a bespoke creation tailored for women's safety. Offering more than a lifeline, it crafts a personalized phone call, divulges immediate locations, and triggers an emergency alert to selected confidants. A detailed profile adds an extra layer of protection, making it a versatile ally across various digital landscapes.
4. STREET SAFE, birthed on International Women's Day, becomes the rallying cry for community solidarity. A mere button click sets forth a symphony of crisis features – from updating Facebook with your location to dispatching SMS alerts and heralding a resonant alarm. It concludes with a call to your chosen emergency number, solidifying its role as a unique safeguarding force.
5. In this symphony of safety, these apps redefine the narrative, transforming smartphones into personalized arsenals for the well-being of women.

B. Proposed Systems

The proposed system is for women safety and overcomes the disadvantages of the existing systems. This proposed system is GPS based "Women Security System". It consists of GPS device i.e. any Android Phone .The device will provide the position information such as latitude, longitude of the user.

- The proposed system is based on advanced sensors. Whenever the user click on button, a distress signal will get generated automatically and then a message alert is sent to the contacts which are added in the emergency contacts list.
- Low battery alert : when the user battery will be less than 10%, a low battery alert message will be sent to the emergency contacts.
- Will implement the notification without internet in our proposed system.

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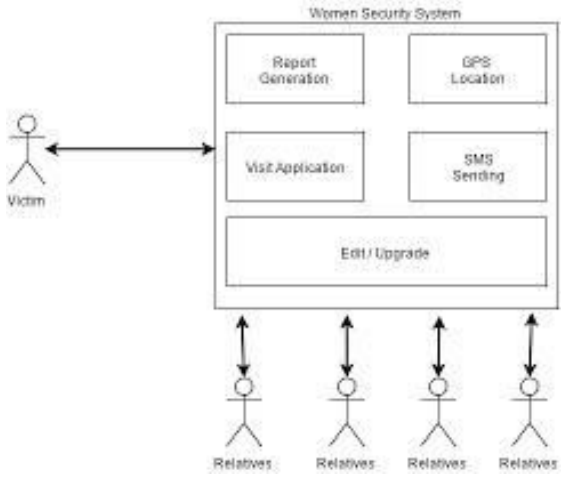
BLOCK DIAGRAM:



III. EVALUATION RESULTS AND UNIQUENESS

The evaluation unfolds in three key steps, each a vital chapter. Step one involves embedding contacts—relatives, friends, and city chief—into the app during installation. The second step sees the app dispatching GPS info to contacts, triggered by the rescue button, contingent on network connection and GPS activation. The final step is a continuous relay of location URLs to registered contacts, creating a rhythmic assurance. This unique tri-step dance fuses technology and human connection, forming a robust shield for those in need. The final choreography in this triad involves a continuous relay of messages containing location URLs to the registered contacts. This relentless transmission becomes the heartbeat of the application, pulsating a rhythm of assurance to the safety guardians. In essence, this unique tri-step evaluation unveils the intricate dance of safety, intertwining technology and human connection to forge a robust shield for those in need.

UNIQUENESS

The previous application is running at the end of user with internet, Means when user will press any key and send notification to guardian at that time we will require internet and we have to follow steps. But we will implement same notification without internet in our proposed system. This system is for women safety and overcomes the disadvantages of the existing systems. This proposed system is GPS based “Women Security System”. It consists of GPS device i.e. any Android Phone. Whenever the user click on button, a distress signal will get generated automatically and then a message alert is sent to the guardians contact.

A. RESULTS

The following figures are the screen shots Rakshak application initially from the starting of it.

Figure 1 represents, When user launches the application in his/her Android phone, the very first screen which lands is the Login Screen. First the user have to register himself by entering the details as the respective name and contact number of the user.

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Figure 1 : Login Page Interface

Figure 2 represents, After entering the correct details in order to Sign Up, the confirmation code (OTP) will be sent to the user at his/her respective contact number.

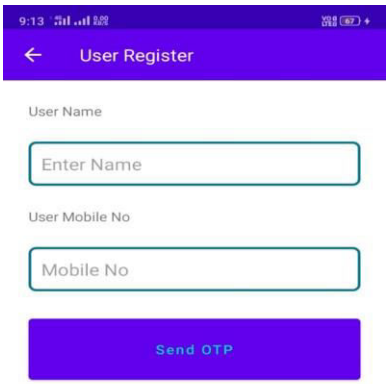

Figure 2 : Verification through OTP Interface

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Figure 3 represents, After successfully logged in by the user, main application pop up window will open up which consists of the following functions:

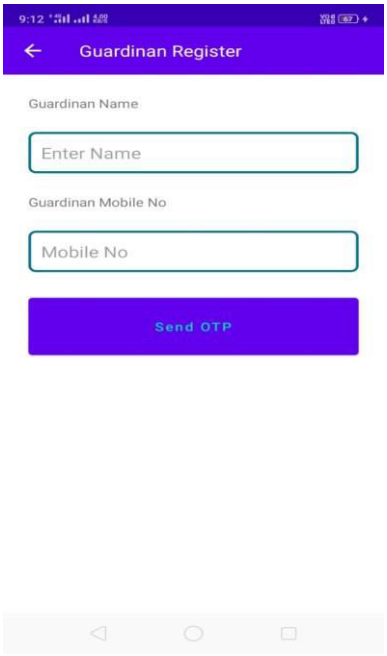

Figure 3: Guardian Registration

Figure 4 represents, Guardian Registration is the care person of women who will get notification of alert and having authority to track location of user.

Guardian gets OTP for registration and gets all details from application.

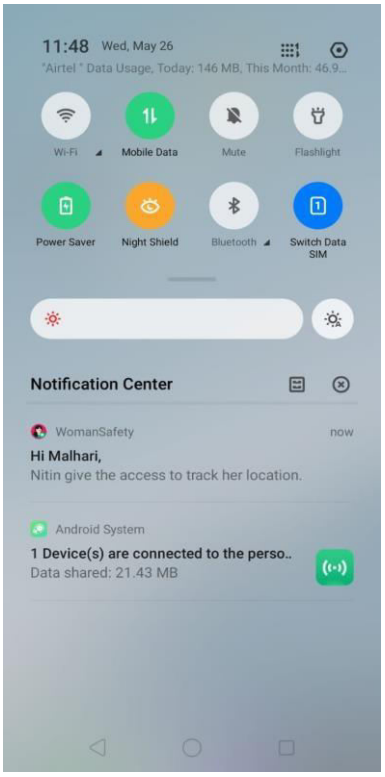

Figure 4 : Guardian Alert notification

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Figure 5 represents, In Guardian alert notification parent come to know about what is happening with the child and exact notification comes and we need to call and check whether this location is found and set location it will track after 20 seconds.

Figure 5: Location Tracing

Track Me : The track me feature allows the user to view the exact dynamic location of the victim. First user have to send the Track Me request at the receivers end. The receiver will accept the request and then his/her name will appear on the friends you are tracking on the bottom of the application. The user could select that friend from there and then it will get automatically re-directed to the Google maps from where the user could view the exact location of the victim and also where's he/she heading to.

IV. CONCLUSION

In this paper we have described Rakshak, an android application for the safety of women. This application helps in live tracking of the location of the victim through GPS along with one of the registered contacts receives a call from the root device. A women safety Android application can play a crucial role in enhancing the security and well-being of women in today's world. By offering features such as emergency alerts, location tracking, and resources for self-defense, such apps empower women to take control of their safety. It's essential for these applications to be user-friendly, reliable, and regularly updated to ensure their effectiveness. Additionally, collaboration with law enforcement agencies and local communities can further enhance the impact of these apps in promoting women's safety. Ultimately, the development and usage of women safety Android applications are important steps towards creating a safer and more inclusive society for all. Out project aims to complete solution of woman safety during unexpected time provide hope to track women.

REFERENCES

[1] Vaijayanti Pawar, Prof. N.R. Wankhade, Dipika Nikam, Kanchan Jadhav, Neha Pathak, "SCIWARS Android App for women safety", Vaijayanti Pawar et al Int. Journal of Engineering Research and Applications, www.ijera.com, ISSN: 2248-9622, vol-4, Issue 3(Version 1), March 2014, pp.823-826.

[2] Praveen Sivathapandi, Girish Wali (2023). MULTI AGENT MODEL BASED RISK PREDICTION IN BANKING TRANSACTION USING DEEP LEARNING MODEL. JOURNAl OF CRITICAL REVIEWS 10 (2):289-298.

[3] Kartheek, Pamarthi (2023). Big Data Analytics on data with the growing telecommunication market in a

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Distributed Computing Environment. North American Journal of Engineering and Research 4 (2).

[4] Subash Banala(2023), "Cloud Sentry: Innovations in Advanced Threat Detection for Comprehensive Cloud Security Management" in International Journal of Innovations in Scientific Engineering 17 (1), 24-35

[5] Sugumar, Rajendran (2023). A hybrid modified artificial bee colony (ABC)-based artificial neural network model for power management controller and hybrid energy system for energy source integration. Engineering Proceedings 59 (35):1-12.

[6] Mohit, Mittal (2017). The Role of Edge Computing in IOT: Enhancing Real Time Data Processing Capabilities. International Journal of Advanced Research in Electrical, Electronics and Instrumentation Engineering 6 (12):8811-8819.

[7] Gladys Ameze, Ikhimwin (2023). Dynamic Interactive Multimodal Speech (DIMS) Framework. Frontiers in Global Health Sciences 2 (1):1-13.

[8] Sugumar R., et.al IMPROVED PARTICLE SWARM OPTIMIZATION WITH DEEP LEARNING-BASED MUNICIPAL SOLID WASTE MANAGEMENT IN SMART CITIES, Revista de Gestao Social e Ambiental, V-17, I-4, 2023.

[9] Vimal Raja, Gopinathan (2017). Predicting Default Rates in Credit Scoring Models using Advanced Mining Algorithms. International Journal of Innovative Research in Science, Engineering and Technology 6 (12):23188-23193.

[10] Rajalakshmi Soundarapandiyan, Praveen Sivathapandi (2022). AI-Driven Synthetic Data Generation for Financial Product Development: Accelerating Innovation in Banking and Fintech through Realistic Data Simulation. Journal of Artificial Intelligence Research and Applications 2 (2):261-303.

[11] Arulraj AM, Sugumar, R., Estimating social distance in public places for COVID-19 protocol using region CNN, Indonesian Journal of Electrical Engineering and Computer Science, 30(1), pp.414-424, April 2023.

[12] Kartheek, Pamarthi (2023). Protecting the Hadoop Cluster on the Basis of Big Data Security. Journal of Artificial Intelligence, Machine Learning and Data Science 1 (3):831-837.

[13] Arulraj AM, Sugumar, R., Estimating social distance in public places for COVID-19 protocol using region CNN, Indonesian Journal of Electrical Engineering and Computer Science, 30(1), pp.414-424, April 2023

[14] Vimal Raja, Gopinathan (2021). Mining Customer Sentiments from Financial Feedback and Reviews using Data Mining Algorithms. International Journal of Innovative Research in Computer and Communication Engineering 9 (12):14705-14710.

[15] Sivathapandi P, Sudharsanam SR, Manivannan P. Development of Adaptive Machine Learning-Based Testing Strategies for Dynamic Microservices Performance Optimization. Journal of Science & Technology. 2023 Mar 21;4(2):102-37.

[16] Vimal Raja, Gopinathan (2022). Leveraging Machine Learning for Real-Time Short-Term Snowfall Forecasting Using MultiSource Atmospheric and Terrain Data Integration. International Journal of Multidisciplinary Research in Science, Engineering and Technology 5 (8):1336-1339.

[17] Arul Raj .A.M and Sugumar R.," Monitoring of the social Distance between Passengers in Real-time through video Analytics and Deep learning in Railway stations for Developing highest Efficiency" , March 2023 International Conference on Data Science, Agents and Artificial Intelligence, ICDSAAI 2022, ISBN 979-835033384-8, March 2023, Chennai , India ., DOI 10.1109/ICDSAAI55433.2022.10028930.

[18] G. Vimal Raja, K. K. Sharma (2015). Applying Clustering technique on Climatic Data. Envirogeochimica Acta 2 (1):21-27.

[19] Praveen Sivathapandi, Prabhu Krishnaswamy (2022). Advanced AI Algorithms for Automating Data Preprocessing in Healthcare: Optimizing Data Quality and Reducing Processing Time. Journal of Science and Technology (Jst) 3 (4):126-167.

[20] G. Vimal Raja, K. K. Sharma (2014). Analysis and Processing of Climatic data using data mining techniques. Envirogeochimica Acta 1 (8):460-467.

[21] Sugumar, R. (2023). Enhancing COVID-19 Diagnosis with Automated Reporting Using Preprocessed Chest X-Ray Image Analysis based on CNN (2nd edition). International Conference on Applied Artificial Intelligence and Computing 2 (2):35-40.

[22] Sugumar, R. (2023). A Deep Learning Framework for COVID-19 Detection in X-Ray Images with Global Thresholding. IEEE 1 (2):1-6.

[23] Rajendran, Sugumar (2023). Privacy preserving data mining using hiding maximum utility item first algorithm by means of grey wolf optimisation algorithm. Int. J. Business Intell. Data Mining 10 (2):1-20.

[24] Dr.R.Udayakumar, Muhammad Abul Kalam (2023). Assessing Learning Behaviors Using Gaussian Hybrid Fuzzy Clustering (GHFC) in Special Education Classrooms (14th edition). Journal of Wireless Mobile Networks, Ubiquitous Computing, and Dependable Applications (Jowua) 14 (1):118-125.

[25] Dr.R.Udayakumar, Dr Suvarna Yogesh Pansambal (2023). Real-time Migration Risk Analysis Model for

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Improved Immigrant Development Using Psychological Factors. Migration Letters 20 (4):33-42.

[26] Robi Grgurina, Brestovac and Tihana Galinac Grbac, "Development Environment for Android Application Development: An Experience Report," MIPRO 2011, May 23-27, 2011, Opatija, Croatia.

[27] Android App developed by Canvas M Technologies, 26 June, 2013, "FIGHTBACK", http://www.fightbackmobile.com/welcome .

[28] Android App developed by Think, MPI Consulting Private Limited, 29 September,2014,"SECUREMEBETA", https://play.google.com/store/apps/details?id=com.thinkmpi.app.secureme&hl=en .

[29] ABC Mobile Learning Communication, 23 January, 2014,"VANITHAALERT", https://play.google.com/store/apps/details?id=org.sravan.ntv.save.vanitha&hl=en .

[30] Programming Android Book by G. Blake Meike, Laird Dornin, Masumi Nakamura, and Zigurd R. Mednieks.

[31] Android Programming: The Big Nerd Ranch Guide Book by Brian Hardy

[32] Android App Developed by people guard LLC, 24 September, 2013, "STREET SAFE", https://jezebel.com/5895916/the-street-safety-app-for-protective-and-paranoid-women .

[33] Android App Developed by Corp., 28 January, 2015 "GLYMPSE – SHARE GPS LOCATION", https://www.glympse.com/

[10] Android App Developed by Guardly Corp., 28 January, 2014, "GUARDLY", https://www.guardly.com/ .

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