**THEYWE: A Comprehensive Web-Based Solution for Enhancing Women’s Safety**

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**ABSTRACT:**

**In an era of growing technological advancements, ensuring the safety and empowerment of women remains a critical societal need. This paper introduces TheyWe, an innovative mobile application designed to provide real-time safety solutions for women. The app integrates cutting-edge technologies, including geolocation, emergency alert systems, and secure authentication mechanisms, to offer a reliable and user-friendly platform for immediate assistance during emergencies. Key features include a one-touch SOS button, live tracking shared with trusted contacts, and an AI-powered risk assessment engine that proactively identifies unsafe zones. The app is further fortified with Firebase Authentication, ensuring secure access and user data protection. Through extensive usability testing and community feedback, Theywe demonstrates significant potential in fostering a safer environment. This research explores the development process, technological framework, and real-world implications of the application, underscoring its scalability as a global solution for women's safety.**

**1. INTRODUCTION**

Women’s safety remains a significant concern worldwide, with rising cases of harassment, assault, and other security threats. Despite various legal frameworks and safety measures, individuals—especially women—continue to face unsafe environments in public spaces, workplaces, and even within their communities. In this digital age, technology has played a crucial role in mitigating security threats through mobile applications, wearable safety devices, and surveillance systems. However, many of these solutions come with limitations, such as dependency on mobile installations, battery constraints, internet connectivity issues, and the lack of immediate physical response. To address these gaps, *THEYWE* is introduced as an innovative, web-based safety module designed to ensure rapid, community-driven emergency responses.

*THEYWE* operates on a simple yet effective principle: whenever an individual feels threatened or faces an emergency, they can trigger an alert using a panic button embedded in the platform. Upon activation, the system immediately transmits the user's real-time location to a network of registered volunteers who are within the vicinity. These volunteers, vetted for security purposes, are then able to respond swiftly and provide immediate assistance until official emergency services arrive. Unlike traditional safety applications that require downloads and installations, *THEYWE* is a web-based platform, making it more accessible across multiple devices, including smartphones, tablets, and computers, without compatibility concerns.

The implementation of *THEYWE* incorporates a combination of advanced web technologies and security mechanisms. Firebase Authentication ensures secure user login and verification, preventing unauthorized access. GPS-based real-time tracking enables precise location sharing, ensuring that volunteers receive accurate information to act quickly. Additionally, the system employs a robust volunteer management framework, allowing verified individuals to register and participate in the safety network. This decentralized approach to security fosters a collaborative environment where individuals play an active role in ensuring public safety.

A key differentiating factor of *THEYWE* is its reliance on community-based intervention rather than solely on law enforcement agencies. While authorities remain crucial in handling security incidents, their response time can often be delayed due to logistical challenges, resource limitations, or high emergency call volumes. *THEYWE* bridges this gap by engaging everyday individuals who are willing to contribute to public safety, thereby reducing response times and ensuring immediate intervention in crises. This volunteer-based system not only enhances security but also promotes social responsibility and collective vigilance.

This research paper explores the conceptualization, technological development, and real-world implications of *THEYWE*. It delves into the platform's architecture, the security measures implemented to safeguard user data, and the effectiveness of the community-driven safety model. Additionally, the study analyzes the potential challenges, such as user adoption, trust-building among volunteers, and legal considerations, while also proposing enhancements like AI-powered threat detection, automated escalation mechanisms, and integration with law enforcement databases.

Through *THEYWE*, we aim to revolutionize women’s safety by leveraging the power of web technology to create a scalable, real-time, and accessible security solution. By harnessing the collective efforts of communities and integrating intelligent safety measures, *THEYWE* aspires to be a pioneering initiative in the fight against gender-based violence and public insecurity.

**2. PROPOSED WORKFLOW:**

The *THEYWE* system follows a structured workflow to ensure a seamless and efficient emergency response mechanism. The architecture integrates frontend, backend, database management, real-time location tracking, authentication, and a volunteer dispatch system. Below is a detailed technical workflow:

**1. User Registration & Authentication**

**Technologies Used:** Firebase Authentication, React (Frontend), Node.js (Backend)

1. **Volunteer and User Registration:**

* Volunteers must register through the **"Signup as VOLUNTEER"** option on the homepage, providing their details for verification.
* General users register via the **"Signup as USER"** option, ensuring their profile is created for accessing safety features.
* Firebase Authentication manages user identity securely, supporting email/password login and third-party authentication methods.

1. **Verification & Access Control:**

* Volunteers undergo an additional verification step before being approved to receive emergency alerts.
* Users and volunteers log in using their credentials, activating their ability to send or respond to distress signals.

This ensures that only verified individuals participate in the *THEYWE* safety network, enhancing trust and security.

**2. SIGNUP PAGE:**

**A. VOLUNTEER LOGIN PAGE**

The image shows the Volunteer Login page for THEYWE, designed for individuals who want to register as volunteers to assist users in emergencies. The form includes multiple fields to ensure proper verification before granting access.

**Form Fields & Features:**

* Name: A text input field where the volunteer enters their full name.
* Email: A required input field for the volunteer’s email ID, which may be used for authentication and communication.
* DOB (Date of Birth): Volunteers must enter their date of birth in the format DD/MM/YY for identity verification.
* Police Record Check: A mandatory question asking if the volunteer has a clean police record, with Yes/No radio button options. This ensures a trustworthy network.
* Gender Selection: Volunteers can choose between Male (M), Female (F), or Non-Binary options for demographic records.
* Aadhaar (ID Verification): A field for entering the volunteer’s Aadhaar number (or equivalent national ID) for further identity validation.

**Login & Authentication:**

* Login Button: A green button allowing volunteers to log in with their entered credentials.
* Google Authentication: A secondary option to Sign in with Google, enabling a quicker and more secure login method.

This page ensures that only verified, responsible individuals can register as volunteers, improving the safety and credibility of the platform.