Problem Statement

- Women encounter various safety challenges like harassment and violence, underscoring the need for tailored, accessible safety solutions.
- Current technology gaps include the inability to monitor women-specific conditions like irregular heartbeats, and the lack of seamless integration with emergency services.
- Addressing these gaps is crucial for enhancing women's safety and well-being.

Solution

- Creating a women's safety system with IoT sensors and a cloud server for data collection and analysis.
- Use machine learning for risk prediction, alerts for safety threats, and a user-friendly interface for control.
- Ensure scalability, maintenance, and integration with emergency services. Test thoroughly and provide user training for effective utilization.

Objective

The women's safety wearable sensor project leverages IoT to empower women globally by addressing harassment and assault. It innovates in safety solutions through real-time monitoring and emergency alerts, driven by a motivation to combat abuse and instill fearlessness. Community engagement is crucial for advocating technology-driven safety measures, with the ultimate goal of addressing safety concerns, empowering women, and engaging communities for women's safety and empowerment.

Introduction

- The emergence of women's safety patrolling wearable sensors signifies a significant technological advancement aimed at bolstering personal safety and security for women.
- These wearables harness the capabilities of Internet of Things (IoT) technology to furnish real-time monitoring and alert functionalities, ready to be activated in emergencies.
- Their introduction addresses the escalating necessity for women to feel secure in public domains, particularly amidst rising incidents of harassment and violence.

WOMEN SAFETY WEARABLE DEVICE USING IOT
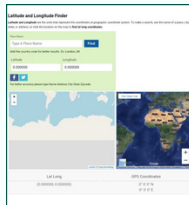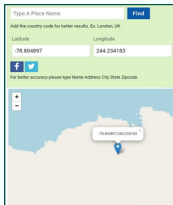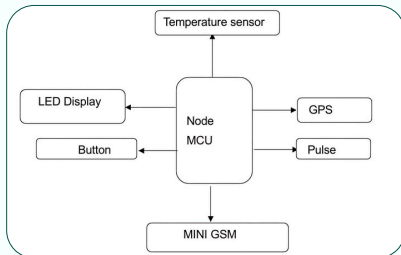
Proposed Methodology

- This project includes the utilization of a range of IoT sensors and devices such as GSM, and heart rate monitors to monitor both the environment and individual status.
- Additionally, establishing a cloud server is essential to collect, store, and process data from these devices, ensuring data integrity, security, and accessibility. Implementing machine learning algorithms aids in analyzing collected data, predicting safety risks, and detecting unusual patterns.
- Developing an alert and notification system is crucial to send alerts via SMS, push notifications in case of safety threats. Creating a user-friendly interface enables users to monitor safety status, control IoT devices, and manage safety settings.
- Scalability, easy maintenance, and updates are vital design considerations for accommodating growing user numbers.
- Integration with existing safety systems like emergency response services ensures a comprehensive safety solution.
- Thorough testing and validation are conducted to ensure reliable system functionality, with user training and support provided to ensure effective system utilization and response to safety alerts.