Chapter 13
Mobile Application-Based Women's Safety and Security System Using AI

Hitesh Gehani
Shri Ramdeo Baba College of Engineering and Management, India

Sivaram Ponnusamy
https://orcid.org/0000-0001-5746-0268
Sandip University, Nashik, India

ABSTRACT

There are many shameless residential manhandles for ladies across the world. Usually quickened due to the nonappearance of a successful following framework. This is centred on a female security framework centred on AI which offers security to women. This system can be programmed and manually react accurately in pivotal circumstances. In arrange to accurately track the condition of casualty and Raspberry Pi, the proposed gadget comprises a discourse acknowledgment device, Gsm modem, and a few other locators, such as beat locators and an accelerometer, to screen the information and shirking or security measures might be carried out agreeing to the noteworthiness of the issue. The authors utilize one program and a few collar chain artifacts and shows that are in regular utilize. The machine is indistinguishable from a screen on the collar with a button as a source, where, when turning on the yelling warning, the electric stun gadget and the screen and area points of interest of contacts and the closest police station are implemented for the self-defense aim.

1. INTRODUCTION

A portable phone with computer highlights is not an exemption. Or maybe it isn't easy to discover among cutting-edge products a portable phone that's as it were, a cellular phone without extra choices like capacities to connect with computerized frameworks (PC, portable workstations, etc.) and to get to the Web (Web, mail, etc.). These days versatile innovations are quickly creating. Some individuals

DOI: 10.4018/979-8-3693-2679-4.ch013

are prepared to deny desktop computers and other stationary communication gadgets and go to portable (convenient) devices. As the execution and usefulness of versatile devices develop, the number of individuals who need to remain in touch utilizing a fair little gadget that can fit in their stash quickly increases. It's basic to note that the execution of versatile gadgets isn't truly second-rate to desktop PCs, and human-machine interface issues are very successfully fathoming with touchscreen innovations and portable operation frameworks. It's imperative that cutting-edge portable applications don't utilize the execution of versatile de-indecencies in full. At the same time, the nearness of extra interfacing (Bluetooth, Wi-Fi, etc.), supplementary administrations (PTT, moment informing, etc.) and additional build-in modules (GPS collectors, video cameras, etc.) frame a great foundation for diverse solutions-based on versatile stages in different application areas. For this case, a standard GSM portable phone with a middle-resolution camera and GPRS/EDGE association is able to execute a client computer program that studies and recognizes bar codes for transmission information approximately stock in capacity to a server computer program (information-based administration system). The objectives of this chapter are to decide conceivable outcomes of utilizing advanced portable gadgets for security and security arrangements and to speak to generalized models of such applications.

versatile application-based ladies' security and security framework utilizing AI could be a capable device outlined to improve the security and security of ladies. Such a framework typically integrates different advances and AI calculations to supply real-time help and bolster ladies in possibly perilous circumstances. Here's an outline of how such a framework might work:

Mobile Application: The framework begins with a devoted versatile application that can be effortlessly introduced on a smartphone. This app serves as the client interface and gives access to the system's features.

GPS Following: The app employments GPS innovation to track the user's area in real time. This data is significant for deciding the user's whereabouts and guaranteeing a speedy reaction in case of an emergency.

Emergency Button: The application ought to have a noticeable and effortlessly available crisis button. When squeezed, it triggers a caution to the framework and informs predefined crisis contacts, such as companions, family individuals, or law requirement agencies.

Voice Recognition: The framework can incorporate voice acknowledgment innovation to distinguish trouble within the user's voice. In the event that the client is in threat and incapable of calling for offer assistance, the AI can analyse the tone and substance of their voice amid phone calls and send cautions accordingly.

AI-Based Danger Discovery: The AI component of the framework can analyse different information sources, counting areas, development designs, and indeed sound inputs, to distinguish potential dangers or abnormal behaviour. For case, on the off chance that the client is strolling alone late at night in a hazardous area, the framework can send notices or actuate extra security features.

Community Alarms: Clients can pick to get real-time alarms almost episodes or risky ranges detailed by other clients in their region. This crowd-sourced data can assist women in avoiding possibly unsafe situations.

Safe Courses: The app can propose secure courses based on real-time information and user-generated data. This will offer assistance to clients in arranging their ventures and dodge areas with a history of security concerns. Voice Commands and Hands-Free Highlights: To guarantee ease of utilization, the app may bolster voice commands and hands-free operation. This can be particularly vital in circumstances where the client may be incapable of getting to their phone manually.