International Journal of Engineering Inventions
e-ISSN: 2278-7461, p-ISSN: 2319-6491
Volume 11, Issue 3 [May.-June. 2022] PP: 749-753

A Hostilic Framework for Crime Prevention

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ABSTRACT

It is important to keep women safe in smart cities. Despite numerous legislative and technical measures taken around the world, women's safety remains a global concern. The criminal record is maintained by law enforcement agencies and is not always readily available to the general public. There are various wearable technologies and smartphone applications aimed at keeping women safe, but they rely on limited social intervention and are ineffective at keeping women safe when needed.Crime response, crime analysis, and crime prevention plans are often poorly linked, creating gaps in protecting women's safety. Our main contribution is the creation of a theological system that contains three important features those are Crime mapping , analysis & crime prevention. This study uses Geographic Information Systems (GIS) to identify crime hotspots and patterns.

Date of Submission: 07-06-2022 Date of Acceptance: 22-06-2022

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1. INTRODUCTION:

Gender Gap is one of the biggest problems of the century. Despite the fact that constitutional rights uphold gender equality, gender inequality continues in many societies around the world. Women in the 21st century have worked with men in various industries and have made significant contributions to society. However, in recent years there has been an increase in violence against women around the world. Gender equality is a necessary condition for a better world.. Gender-based violence against women limits women's participation in the decision-making process and leads to poor quality of life. Equal participation of women is crucial to the promotion of stability, conflict prevention and inclusive and sustainable development.

The severity of violence against women varies from country to country, but no country is immune and needs to understand the root cause of crime and find a solution.
Today, crime detection and control is primarily the responsibility of law enforcement agencies. Law enforcement agencies keep records of crimes, but they are not always open to the public and you can take the necessary precautions.
Crime prevention is an important police concern, but due to the poor police capabilities of the population, their services may be limited to crime prevention rather than crime prevention. Over the years, several wearable devices and mobile applications have been developed to keep women safe. However, the majority of these apps and wearables send visual or audible alerts or messages to personnel (parents) or law enforcement agencies. These systems are disabled when women leave town or leave their parents. These systems rely on limited social intervention and are ineffective in keeping women safe.
In most cases, security, crime analysis and security programs are not integrated, creating gaps in ensuring the safety of women. This white paper presents a comprehensive framework that covers three key aspects: crime analysis and mapping, crime prevention, and crime reduction. The proposed system uses Geographic Information Systems (GIS) technology to identify hotspots and criminal patterns by combining the socio-economic characteristics of the region with criminal history. Users can use the information about crime statistics generated using GIS technology to take the necessary precautions before visiting a particular area. Interactive websites are created to visualize GIS analytics and data generated by wearable and mobile applications. The administrator can also update the criminal record database on a regular basis and the crime hotspot analysis will be updated automatically. As a smart city security strategy, the prototype framework developed for crime mapping, prevention and control can be easily scaled and updated geographically.

2 .LITERATURE SURVEY:

Most apps classify "unsafe" on public areas based on parameters such as lighting conditions, openness, visibility, number of people nearby, number of police stations, sidewalks, etc. classify them as "safe" or "unsafe". However, the reliability of the alerts generated by that utility is primarily limited by perceptual information entered by other users, rather than based on criminal records from trusted sources. Also, the large number of people of the opposite sex in an area, poor visibility, and poor light conditions do not necessarily indicate that the area is unsafe for women. It should be noted that women's safety is also at stake in the house. Therefore, these factors limit the use of applications available to ensure the safety of women.. [1]

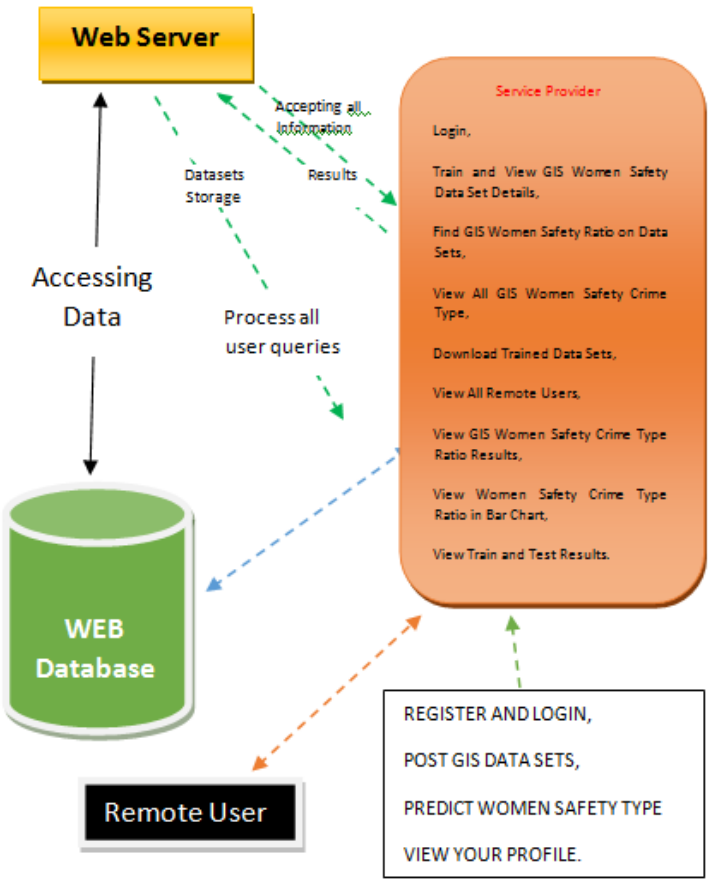
3. PROBLEM STATEMENT:

Crime forecasting refers to the basic process of Predicting and preventing crime before they occur. Tools are needed to predict and prevent a crime before it occurs. Currently, there are tools used by police to assist in specific tasks such as listening in on a suspect's phone call or using a body cam to record some unusual illegal activity. Due to less technological assistance crimes are increasing day by day.

4. METHODOLOGY & IMPLEMENTATION

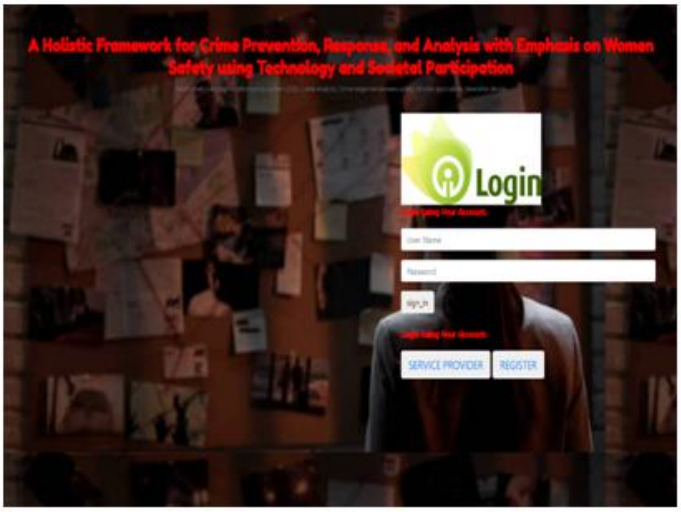
Our main contribution is the development of an overall system that covers three key aspects: crime analysis, mapping, and crime prevention. We Use GIS to identify all crime locations based on historical data and provide crime rates and ratios for all types of India
The website provides all the details of the crime and all the data about the previous crime is also available on the website. If the user has the original data, the user can also upload the crime details data. This criminal data upload will help you train your system better and get accurate results.[2]

4.1. ARCHITECTURE OF PROPOSED SYSTEM



5. RESULT & DISCUSSION

5.1 Login Screen



5.2 Crime type analysis

5.3 Crime type analysis PIE Chart

5.4 Crime type analysis Line Chart

6. CONCLUSION & FUFTURE WORK

Building a safer city for women requires comprehensive security, analysis and countermeasures. This is only effective if we understand the various socio-economic factors that lead to violence against women and can formulate effective policies for social reform. Even technical interventions are not effective in providing timely assistance if only law enforcement or personal contacts are involved in rescue and response. The research presented in this paper provides an overall framework for crime prevention, response and analysis, focusing on women's safety in the use of technology and civil participation.

The integrated system provides component (1) WebGIS, including a geodatabase for storing criminal records and generating, analyzing, and visualizing criminal records. (2) Visit local crime hotspots to take precautions. Both users and people can be recorded and monitored by system administrators. (3) A low-cost wearable device with GPS / GSM / GPRS that triggers alerts that can be used as a standalone device even when the smartphone is inactive. (4) (Future development).

"SpotHer" A website that acts as an integrator for various components developed, such as mobile applications, wearable devices, and Web GIS systems.

This website provides visualization of data collected by mobile applications, wearable devices, geospatial servers, and criminal history. Administrators can also update the criminal data in the geodatabase from the website. This website can display important information such as your real-time location, your safety statistics, the number of volunteers who responded to SOS, your name, phone number, emergency contacts and other user details. This allows you to design proactive countermeasures by identifying crime hotspots, tracking endangered users, and planning precautions.

Website monitoring is carried out by law enforcement agencies. Community participation can not only provide immediate assistance to victims, but also create a social awareness of crimes against women and a common sense of responsibility to ensure women's safety. Data collection for the development of GIS-based crime monitoring and analysis systems was completed through fieldwork in Piranhi, Rajasthan, India. Based on the analysis, inverse distance weighting was selected as a suitable interpolation method for thematic maps of socio-economic causes of crime. This document details the system design process, including system components, functional design, architectural decisions, and experimental testing. For the next few months, the system will undergo continuous stress testing before it is finally deployed. Designed for crime analysis, prevention, and response, the framework is easily geographically extensible and can be used for smart city security.

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