

# Online Crime Reporting System Using Digital Signature Authentication

Mayur R Gawali<sup>1</sup>, Sneha K Birajdar<sup>2</sup>, Payal S Patil<sup>3</sup>, Prof. Shubhra Mukherjee<sup>4</sup>

<sup>1, 2, 3, 4</sup> Dept of Computer Science

<sup>1, 2, 3, 4</sup> Shree Ramchandra College of Engineering, Pune, India

**Abstract-** Victims can file the FIR through the website under various sections. The user can send Photo evidence if any. There will be an 'SOS' capability in which the user can press a button and his/her location will be sent to the nearest Police station. There will be a separate component for the accident victims so that FIR will be registered fast and treatment will be started as soon as possible. In the current system user's information will be kept confidential and only users complain will be forwarded to the nearest police station. Users complain number will be forwarded from the server side automatically and for identifying location and authentic person, concept of cookies and IP addressing will be used. To eliminate the location conflicts between the police station server will play a vital role. It will search the address using IP address and then forwards the message to the police location from where the message has been received. We intend to create a project which will help bridge the gap between the police department and the common man. 'Online crime report' project will have the website from where the users can file FIR against the offender under the various sections. The main site will be maintained by the admin (from the police) who will then notify the user if the FIR has been registered and the necessary action has been taken.

**Keywords-** First Investigation report, victims, virtual Police Station system

## I. INTRODUCTION

As a police department is public organization, it placed various IT systems in to service in order to achieve their goals but still peoples are struggling with various problems in existing systems. Police administration provides various services like protection, security from different kind of threats and also gives a quick emergency help whenever needed. For a developing countries it is necessary to have a speedy and secure virtual police station facility which will effectively solve all problems and will give a better interface to the citizens to privately communicate with assigned police officer and get proper status updates regarding case details.

While developing such a systems it is necessary to use latest information technology architectures and techniques

like machine learn in technique, different libraries, dynamic frameworks, data management tools and data visualized ion tools like tableau to represent data in highly understandable formats like charts, graphs etc. Also there should be a proper distribution of cases among different teams of police officers so that they can manage cases virtually and update status to respective victim. Machine learning is a branch of artificial intelligence which is helpful to perform operations like predictions and classifications based on provided data which may be labelled or unlabeled data. By using these algorithm our system would become more efficient, predictive and interactive system.

## II. LITERATURE SURVEY

Behavioural analysis of crime against women using a graph Based clustering approach. 2017 International Conference on Computer Communication and Information (ICCI): Crime against women is increasing at an alarming rate in almost all parts of India and women in the Indian society.

This system is designed for particular need of the company to carry out operations in a smooth and effective manner. The application is reduced as much as possible to avoid errors while entering the data. And it also provide error message while entering invalid data. No formal knowledge is needed for the user to use this system and hence it proves it is user friendly. Online crime reporting system can lead to error free, secure, reliable and fast management system and it can assist the user to concentrate on the other activities rather than to concentrate on the record keeping. The purpose of the project is to automate the existing manual system with the help of computerized equipment's and to fulfil the requirements so that the data can be stored for long period with easy accessing and manipulation.

## III. PROPOSED SYSTEM

System have been victims of humiliation, torture and exploitation. It has even existed in the past but only in the recent years the issues have been brought to the open for concern. According to the latest data released by the National Crime Records Bureau (NCRB), crimes against women have

increased more than doubled over the past ten years. While a number of analyses have been done in the field of crime pattern detection, none have done an extensive study on the crime against women in India. The present paper describes a behavioural analysis of crime against women in India from the year 2001 to 2014. The study evaluates the efficacy of Info map clustering algorithm for detecting communities of states and union territories in India based on crimes. As it is a graph based clustering approach, all the states of India along with the union territories have been considered as nodes of the graph and similarity among the nodes have been measured based on different types of crimes. Each community is a group of states or union territories which are similar based on crime trends. Initially, the method finds the communities based on current year crime data, subsequently at the end of a year when new crime data for the next year is available, the graph is modified and new communities are formed.

The victims can file the FIR through the website under various sections. The user can send photo evidence if any online. The police will have a criminal database through which they can access the records anytime. In this system, user's information will be kept confidential and only users complain will be forwarded to the nearest police station. Users complain number are forwarded from the server side automatically and for identifying location and authentic person, concept of cookies and IP addressing has been used. While registering a case if at all the user has photo evidence he can send it too through the website for making a strong case. The users will be notified if the police have filed the FIR. This project is cop friendly too. The FIR in such cases will be registered quickly so that the doctors can start the treatment as early as possible.

**3.1 User Interface Module** An authentication module is a plug-in that collects information from a principal requesting access to a protected resource and checks the information against entries in a data store. If the information provided meets the authentication criteria then the user will be validated and if the information provided does not meet the authentication criteria, the user is denied validation. Every station should register to the system. Then the registration process starts upon when each station enters their details such as the Admin name, address, phone no, station name etc. This module describes the authentication so Admin, Headquarters and Users enters the application through login.

**3.2 FIR Module** In this module the user can file the FIR through Aadhar Number. The FIR registration form should get the details of the FIR such as Type of the case and Detailed Description. The user can select the Police station to which his/her FIR has to be forwarded. The user can also upload the

related images for the case evidence while creating FIR and it is used for entering all the details about the crime. It contains the date, police station where it is recorded, place, nature of crime, location of the crime, etc. The case details will be forwarded to the respective police station. The admin of the police station will see the FIR and he/she should take the necessary steps. The steps has taken against the FIR can be viewed by the user through case status module.

**3.3 Notification Module** If the Status of the FIR has been put on hold for the particular period of time, the FIR Numbers whose status has not been modified should send as a notification to the Higher Authority. In our case to the Headquarters. The admin from the Headquarters can see the details of the cases whose status has been put on hold for the set period of time. This allows users to maintain and monitor the case assignments about the cases for investigative officers. Information regarding case status, accessible for making decision. This will be sufficient to the mitigation of the usage of paper forms and implementing this system will increase the likelihood of assignment, solvability, and progress will be material lost will greatly be reduced.

**3.4 Case Report Module:** In this module, we can analyses the Crime reporting rate and processing rate of the Police stations. And also we can analyse the cases filed against each type in particular locations. We have been downloaded the large data set from the data set providers in case of crime in India. And we have created the Report in the form of a chart for the pictorial representation of the Case details. The crime report has viewed in the form of ASP.NET graph using Factor Graph Method and Convolution Neural Network algorithms. This allows the tactical users and the chief of the police to be able to generate reports that will help them in the monitoring crimes and whether the policemen are doing their jobs. This will also help in the decision making purposes of the law enforcers.

## IV. CONCLUSION

In this paper, a completely integrated and compact system is developed that can be used by the common man as well as the police and this system would be like a win-win situation for both of them. This project will be widely used in the future by the police department, the common man, security agencies and even hospitals(for accident and assault victims).The greatest strength of this project is that it offers new features as well as retaining the original characteristics of the existing systems(for example: Criminal Database) remember the type characters using keyboard. Also will save the time for normal person. This framework will coordinate the necessary activity and the aftereffect of the activity.

Considering all these executing strategies this framework gets easy to use, secure as well as interactive. The framework growing presently is depend just on personal machine. With the use of technically advanced smartphones, such systems and applications has a chance to be implemented as an App in smartphones. Thus there is a scope to implement the framework in various other languages rather than implementing it only in English language.

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