E-Traffic Police: A Professional Platform to Increase Efficiency between Government and Citizen

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ABSTRACT: Management information systems (M.I.S.) can be defined as"a set of procedures for capturing, storing and displayinginformation so that it can be delivered to the appropriateindividuals in the organization **--** to assist them with theirjob functions". Described in this fashion, M.I.S. alreadyexists in all police agencies. E-Traffic Police is a government related service that provides the users a simpler way to communicate with the authorities. This can be a great success for the modern era as it increases the level of communication and increases the professional efficiency for the government as well as the citizens. In this paper we focus on the infrastructure of an e- traffic police system, its implementation, its necessity and advantages. This portal is being made to provide a complete online solution and query entertainment for the citizen. This system is useful for showing the records of a citizen based on their Driving License/Pan card/Aadhar card. This portal can be used to pay the parking challans provide the receipt for the same instantly and also through submitted email-id. It provides the location of a towed vehicle and links it to the citizen's Driving License. This also helps the police authorities to link all the broken laws and activities of citizen to their Driving License. The main aim of this project is to increase the citizen's Right to Information, decrease rate of corruption and increase the easiness and professional efficiency. This further maintains the transparency between the government and the citizen. E-police system is an e-government related service and it makes the communication process a possibility, a great success for modern era which increases the professional efficiency for the government police administration. In this paper we focus on the infrastructure of an e-police system as well as its steps, challenges of implementation and its necessity. E-police is intended to provide total computerized information system support for the work of the police.

KEYWORDS: *FIR, RTI, IPC*

I.   INTRODUCTION

Background:
E-government is defined as "The employment of the internet and www for delivering government information and services to the citizens (United Nations 2006, ADEMA 2005). Everyday reports criticizing the police system has become a norm. Incidents of paperwork getting lost, damaged, compromised or leaked etc. are increasing day by day. All these incidents have shattered the confidence of people in the law and order of the country. The discontent among people has increased and the demand for efficient transparent police system has grown with the use of technology to improve access to the justice, boost collaboration between jurisdictions, and strengthen the legal system.
Aim:
The aim of this project is to develop an E-police reporting and management system which is easily accessible to the public, police department and the administrative department.

Objective and Goal:

1. Free access of the citizens for their queries and complaints, establishing database for citizens and police personnel.
2. The normal public in India is afraid to give an complaint in police station because they are filled with a false fear about the police department.
3. An online complaint registering system will solve the fears of public and will also help the police department in catching criminals. An online solution is very useful as the solution is inherently distributive.
4. E-police is intended to provide total computerized information system support for the work of the police. Its primary activities are not transparency-related, but help provide police officers with information on criminal cases and on criminals.

Advantages:

The advantages of the E-Police system are given as follows:

1) Accessibility: As the E-Police system is a web based application so it is accessible to citizens at any point in time or place. People can connect to the network via the mobile unit for example cell phone and can make use of this application for crime reporting.

2) Secured communication: It provides a secured communication in the sense that no third party can intercept the communication taking place between two parties that is the police and the citizens.

3) Significant reduction in crime: With this application police can receive the real-time information about the criminal activities and more importantly capture a suspect information while it is fresh in the minds of victims and witnesses. And thus with the availability of adequate evidences it is possible to solve many criminal cases leading to crime reduction.

4) Receive notifications: After the case registration and validation of the case , the person who has registered that particular case will receive notifications regarding the progress of the case .

5) Provides more agile and responsive service: The main highlight of the E-Police system is the time constraint associated with every event generated in the system. Every generated event is completed in a stipulated time period.

6) Update the criminal database: This system also updates the criminal database frequently, thus providing the users with the latest information on criminals and their crimes.

7) Evidence storage: The evidences submitted by the users or to be more precise the citizens such as a text tip, a video recording, audio recording or a picture etc. all are stored at a secure place.

II.   LITERATURE SURVEY

[1] Study of Police ManagementInformation SystemsCanadabyT .M. ZaharchukR.M. AtchesonC.D. ShearingR.G. HannJ. Palmer

The study was conducted over one and one-half years ofElapsed time. Its major objective was to formulate a generalcatalogue of procedures to assist Canadian municipal policeforces who wish to develop improved management information systems.

[2] Online Crime Reporting System, Chauhan Jitendra O. SoniApurv R.

Citizens not need to go police station to see the criminals' information. they candirectly see information on site .Visitor can easily get the information about the crime and criminal.Reduce the man power , and also reduce the time. Member can view the current status of the criminal.

[3] Crime Area Detection and Criminal Data RecordAanchal Dabhere1, Aniruddha Kulkarni

In 21st century where mobile and informationtechnology have become an integral part of our lives. A newarea where mobile integrated with technology is useful forcrime reporting since readily accessible information is notavailable at any point in investigation this is a key drawbackfor communication in police department. Thus, using cloud,we will try to make all the information related to the criminalsavailable on the Android Application to the police during theirinvestigation which would speed-up the entire process oftracking down the criminals. A mobile application is madeavailable to the common people in order to track down thesafest path to reach their destination by giving notificationswhen chosen a crime affected area and also providing analternate route.

[4] E-Police System- FIR Registration and Tracking through Android Application Archana Iyer, Prachi Kathale, SagarGathoo, Nikhil Surpam

We can see that technology has touched many spheres of our lives in India. There is technology in business, in education, in socializing and maintaining human relations, in purchasing, in agriculture, in banking, communication, and almost every part of our lives. This intrusion of technology has aided the work in all these sections, and has proved beneficial, and time and effort saving. The only major part of our society that still remains majorly devoid of this luxury is the Indian Police Department. The Indian Police Department has ever since remained manually driven for most of its routine chores. The officials have been adopting the basic fundamental methods of carrying out the proceedings with the traditional "pen and paper" method being highly prevalent. These traditional practices were comfortable in earlier days, when population was far less, and the crime rates were also comparably minimal. But in today's India, when the evil elements of the society are in a boom and so many cases being registered every day, it has become a very tedious task to manage the case and all its related documents, manually

[5] Survey Paper On Online Virtual Police Station.Ms. D A Chaudhari, Meghna Madhwani, Prachi Auti, Snehal Sawant, Nikhil Badhe

Generally many crimes seen by the public are not reaching to the police due to many reasons likefear, lack of time, ignorance. Though some cases are registered they are not investigated properlydue to lack of evidences and cooperation of the public. This application helps the public to reportabout the crimes to the police without any fear in correct time. This is helpful to police in solvingthe cases. The fast growing popularity of smart phones and tablets enables us to use variousintelligent mobile applications. As many of those applications require position information, smartmobile devices provide positioning methods such as Global Positioning System (GPS), Wi-Fi-basedpositioning system (WPS).

III.   SOFTWARE REQUIREMENT SPECIFICATION

User Classes and Characteristics

To design products that satisfy their target users, a deeper understanding is needed of their user characteristics and product properties in development related to unexpected problems that the user's faces every now and then while developing a project. The study will lead to an interaction model that provides an overview of the interaction between user characters and the classes. It discovers both positive and negative patterns in text documents as higher level features and deploys them over low-level features (terms).

In proposed work is designed to implement above software requirement. To implement this design following software requirements are used. Operating system: Windows XP/7.

1. Coding Language : JAVA/J2EE
2. Database : MYSQL

3.   Tool : Eclipse Luna

IV.   IMPLEMENTATION STATUS
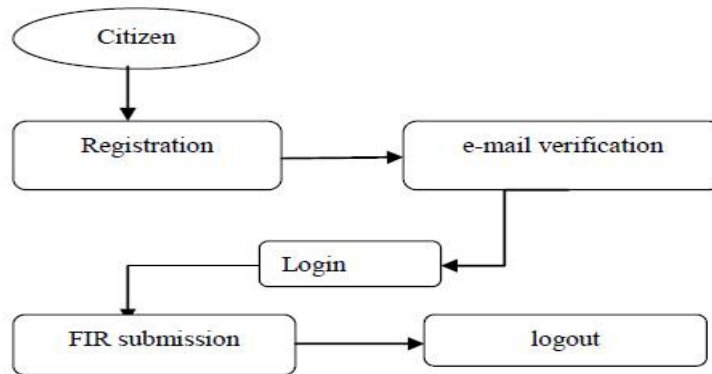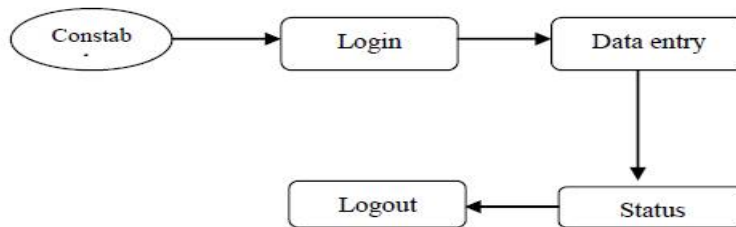
Data flow diagram
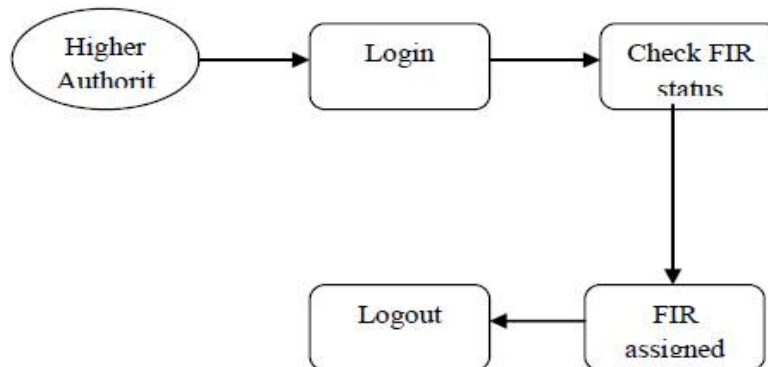

Fig.1. DFD for user

Fig.2. DFD for constable

Fig.3. DFD for Higher authority

There are total three main parts included in user system first is user then constable ant last is higher authority. Let us see brief about each starting with user.

A. USER

The user first have to do registration on site, this include email verification. After doing registration it's email verification is automatically done by the system and after verifying it's email it provide ID and password to user with the help of this the user will permit to enter in the system, that means after entering correct id and password the user will allow to login in the system.

B.CONSTABLE

Constable first have to login in the system, then there are three sections on which constable have to work these are data entry then search engine is there and status update. In data entry section the constable enter any newly added data in the system. Search engine is to search any information about user in the system, with the help of search engine the constable searches any information about FIR then with the help of status update the constable will permit to update the status of recent case in the system. C. HIGHER

C. AUTHORITY

The last part of the system is higher authority area in this the higher authority first have to login in the system. The higher authority first check out the fir submitted by the user is there any fake information present in it or not. It would check the importance of FIR and an assigned to level of authority according to their importance. Then the image base verification is performed by higher authority and he will also give the progress report on the fir on which the police working is properly done or not is there delay in the work etc in short the higher authority will give the feedback on the fir i.e. he will give progress report on the FIR on which police work.

V.   ALGORITHM FOR RELEVANT FEATURE DISCOVERY

Efficient Algorithms play important role in the relevant feature discovery from text document using text mining. The following steps explain the relevance feature of text documents:
1. Start.
2. Login
3. View vehicle list
4. Stop

VI.   SYSTEM ARCHITECTURE

The users of this system architecture are the Citizens, Help Desk System, Police System ,Court System and Database Administrator .All these users connect to the network via mobile unit such as the cell phone and make use of this system.
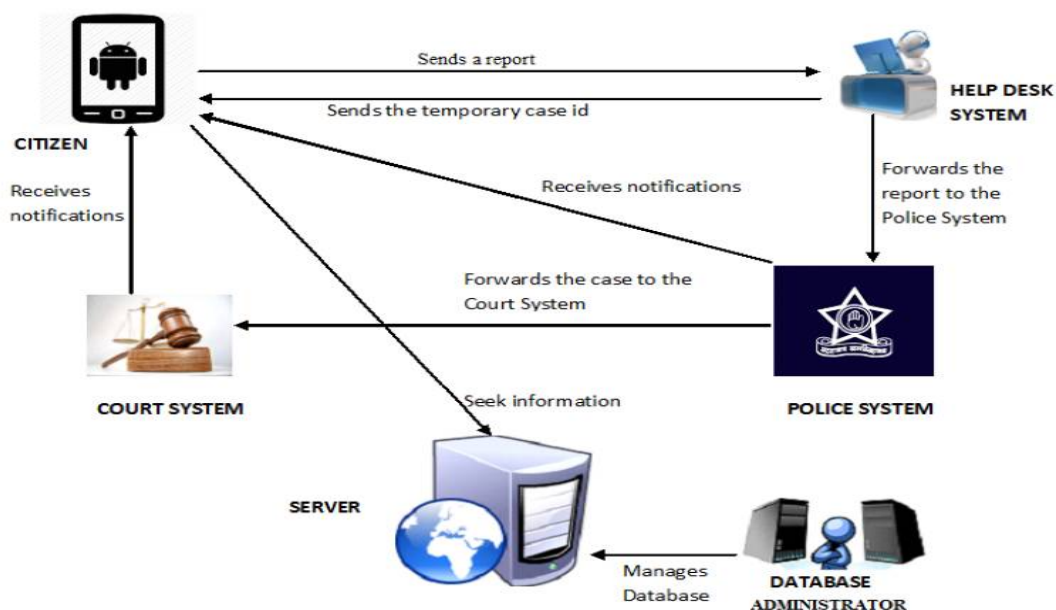

Fig 1.Architecture of E-Police System

A. Citizen:

Once this application has been installed in the mobile unit then the citizen can report all the criminal activities taking place in his/her surroundings by sending a text tip with picture or audio evidence or by simply uploading a video as an evidence to the Help Desk System .

B. Help Desk System:

After receiving a report, Help Desk System generates the temporary case id for that particular report, sends the case id to the person who has registered the case and verifies whether report is genuine or fake (one of the help desk employee goes to the place where crime has taken place and verifies the report) .Once it is clear that the report is not a fake one then the permanent case id of that case is generated and that case is forwarded to the concerned police station.

C. Police System:

In the police station the FIR and the charge sheet of the case is created and investigations are carried out. After the criminals are identified and if the case requires intervention of the court system then the case is forwarded to the court system.

D. Court System:

Once the case enters Court System then judge makes all the decisions on the basis of evidences regarding that case such as whether the guilty is to be proven as a criminal or not , if he/she is proven as a criminal then what all actions to be taken against that person etc.

E. Database Administrator:

Here the job of the Database Administrator is to generate id's and passwords of all the users and update the database on the regular basis.

Explanation

In this entire scenario, the user who has registered the case gets the notifications about the progress of the case and its status such as whether the culprits have been identified and arrested or not, if arrested then what all actions are taken against them, whether the case has been forwarded to the court or not and if it has been forwarded then the user gets notifications of all the activities taking place in the court as well such as hearing dates, punishment given to the culprit etc.

VII. CONCLUSION

This paper will definitely help the police system in making the police work more efficient through equipping the police with modern solutions i.e. it aims to ensure solutions and means for the police officers that support their main activity and it will be interesting for audience in the context of law and order situation in our country. The main intent of this paper is to upgrade the developing countries' police administration to the world standard by using modern information and communication technologies. At last we recommend to developing countries that to take necessary steps for upgrading the present police system to e-police system by overcoming the issues and challenges. In future we can add and use new technologies, wireless communication systems, modern IP networks [3] etc.This project has also provided facilities of RTI act, link verification and encryption algorithm that will help validate users identity as well as secure document given by user. An image comparison algorithm is written to help cops check an existing person online.

REFERENCES

1. Study of Police Management Information Systems Canada by T .M. Zaharchuk R.M. Atcheson C.D. Shearing R.G. Hann J. Palmer
2. Online Crime Reporting System, Chauhan Jitendra O. SoniApurv R.
3. Crime Area Detection and Criminal Data Record Aanchal Dabhere1, Aniruddha Kulkarni
4. E-Police System- FIR Registration and Tracking through Android Application Archana Iyer, Prachi Kathale, SagarGathoo, Nikhil Surpam
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