



Use of Digital Filing to Maintain Transparency in the Criminal Justice System

Dr. Sreenivasa B R

Associate Professor, Dept. of Information Science & Engineering

Bapuji Institute of Engineering & Technology, Davangere.

Abstract:

Every day, the world adopts evolutions. Digitalization and automation have improved services' quality, security, and accessibility. Computers have taken over control in both the public and private sectors. There are still a lot of areas in India where digitalization needs to be implemented. In those areas, traditional methods are still being used. The general public is suffering significant losses and inconvenience. This is something that a lot of people take advantage of. Unfair decisions are also a result of political interference and pressure. Even if the victim wishes to provide information, F.I.R.s are not always taken.

In many cases, proper action and investigations will not be taken, and the public will be unaware of these activities. All of this will occur due to corrupt officers and political bodies seeking to save a guilty person for a lucrative position or power at the expense of the poor and powerless public. The uninformed public is powerless to intervene. In the interest of people who want to file F.I.R.s without being pressured, we propose a system automatically entering them into the police system. The proposed system will put decision-making power in the hands of the right people. The public will be able to register F.I.R.s without the involvement of the police and will have proper oversight of the digitally conducted investigations and proceedings in their cases. This includes a digital system that will accept F.I.R.s from victims online and will not allow them to be deleted. Before going to the police station, the victim can file a complaint through the government's online system. The victim can file a complaint to the F.I.R. directly at the police station or even at the scene of the incident using a convenient mobile application and can track the progress of his F.I.R. investigation from the same app. The system will work to increase transparency among government departments and, as a result, reduce corruption and human suffering.

Keywords: Corruption, extortion, F.I.R., and Digitalisation.

1. INTRODUCTION

There is no more dangerous threat to civilization than an inept and corrupt government. Among all the problems, social crime and corruption are the most serious. The government and the general public attempt to

resolve these issues, but they are not being resolved. Instead, it's getting bigger. This evil is caused by everyone in this society, whether directly or indirectly. Even government systems are too old to solve these problems, and they are acting as a pushback (driving force) for the problems to worsen. For the public to visualize government activities, the interface system used between government and the public is opaque. As a result, the general public cannot assess the quality of services that they require and that are actually provided to them. People in the police force are dealing with the same issue. As a result, we need a system that addresses all of these issues and seeks a solution that promotes transparency between citizens and law enforcement agencies while placing decision-making authority in the right hands. The proposal is an attempt to do just that. The proposed system is packed with features that will help you find the best solutions. First and foremost, all F.I.R complaints will be digitally registered via a mobile application and forwarded to the police station's F.I.R database. The police F.I.R database will not have any deletion options to protect the records from unwanted interference. Third, police will receive a digital database of cases that will make it easier to access and manage. Fourth, the victim will be assigned an id number for his case, which will serve as a key to tracking all of the case's details and proceedings. Fifth, and most importantly, it increases transparency in police work, allowing people to see the investigations into their cases in real-time and report to higher authorities if they find no progress. Extortion and corruption in the police are depicted in cartoon form in Figures 1 and 2.



Figure 1: Police Extortion



Figure 2: Police Judgments Perspective

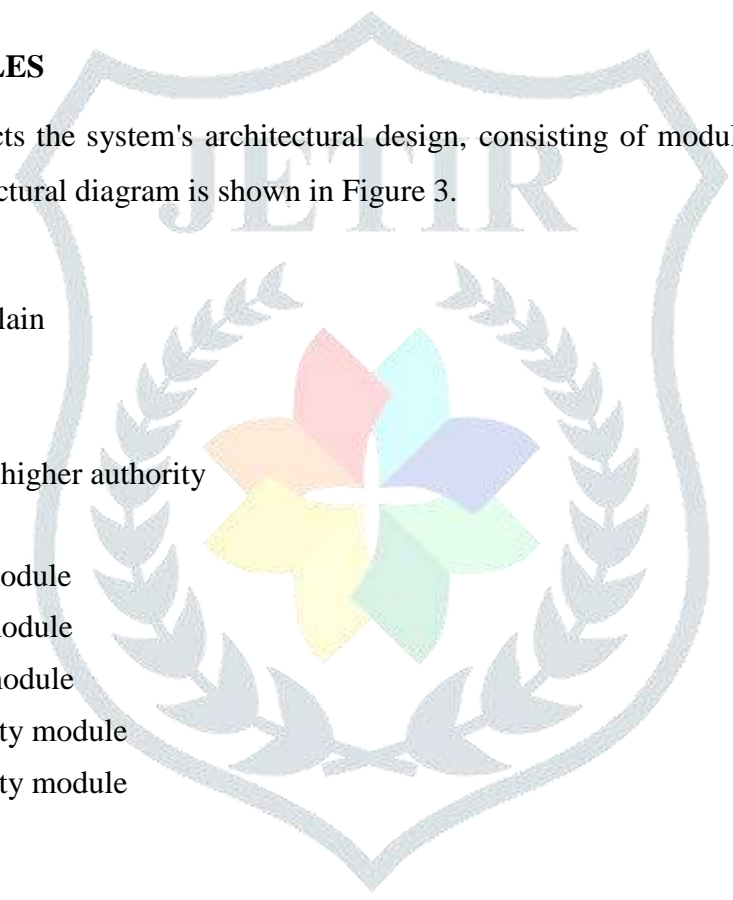
2. METHODOLOGY

Separate login portals for public and government police officers are proposed in the proposal. The entire system will have two login pages: one for the general public and another for officers. Each police station will have a computer system with a login page for officers for digital automatic complaint registration. Customers will be able to access their login portal. Customers new to the portal must first register with their Aadhar number. The customer will be given a username and password after completing the registration process. The customer must first log in to the portal to file a complaint. The user should file a complaint detailing the

incident in detail, including the location and date of the occurrence. After submitting the complaint, the user will be assigned an id number corresponding to the complaint. The complaint will be entered into the system's database and forwarded to the nearest police station. When a police officer logs into the system or portal, he will see a list of all complaints entered into the database. There will be no option to delete the record from the database. Every complaint entered into the system must be forwarded and investigated. The police will now examine the cases and complaints. At the end of each day, the police must provide an update on the progress made in each case. By entering the complaint id number assigned to him during the complaint filing process, the victim of the case can monitor the progress of his case thus far by logging into the public portal. If the victim does not see any improvement in their case, they may visit the help page and leave a comment, which higher authorities will review. These portals are capable of disseminating all notifications and messages pertaining to the case.

3. SYSTEM MODULES

The system module depicts the system's architectural design, consisting of modules and sub-modules. The proposed system's architectural diagram is shown in Figure 3.

- 
- The image contains a large, faint watermark of the JETIR logo in the background. The logo is a shield-shaped emblem with a laurel wreath border. In the center is a stylized flower with five petals in different colors: red, cyan, blue, green, and yellow. The word 'JETIR' is written in a large, light blue font across the middle of the shield.
- Victim Module:
 - Register complain
 - SMS Alert
 - Current status
 - Complain to a higher authority
 - Administration
 - Registration module
 - SMS update module
 - Updated file module
 - Higher authority module
 - Higher authority module
 - Police
 - Complain list
 - Cop assignment
 - Regular update
 - Case termination

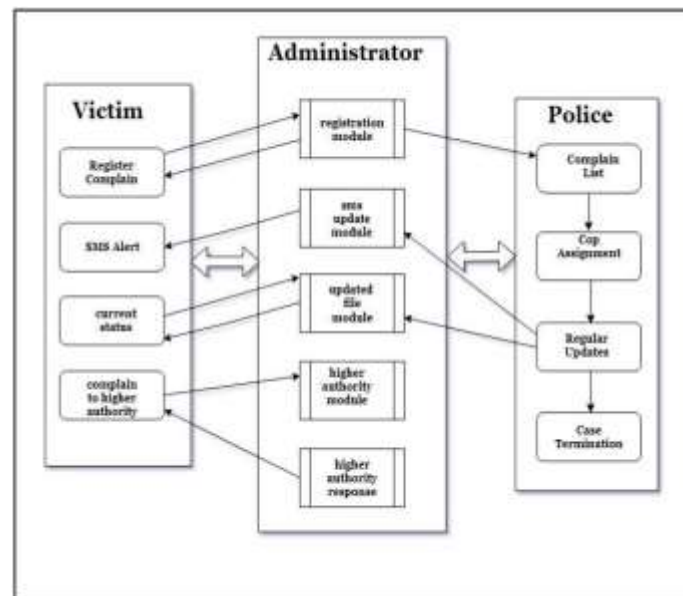


Figure 3. Architectural diagram

A. **Victim:** It is a module that consists of all the activities and interactions of customers with the police department.

This module serves as a link between the police and the general public. It will manage and control all databases related to a complaint from both the victim's and the police's perspectives.

i. The registration module is the first submodule in this, and it takes the victim's initial data and sends a reference number to acknowledge the complaint's submission. It will send the victim's information to the police station's complain list database.

ii. The second sub-module is the SMS update module, which will take daily case update data from the police and send it to the appropriate victim. Whenever there is a regular update from the police department on any case, the victim will be notified via SMS on the registered mobile number.

iii. The updated file module is the third submodule, and it stores all of a complaint's updates and status. It will receive data from the police, and the victim will be able to retrieve it using the reference number and track the status of his complaint.

The higher authority module will include police higher authority controls and contacts, which will take public feedback and supervise cases in which people are experiencing problems with police updates and inconvenience. Each case will be assigned a reference number to various cops based on their cop number. If a complaint is filed with a higher authority, the reference number will provide information about the officer in charge of the case. As a result, it will be simple for higher authorities to take action against the responsible officers.

v. Higher authority response module is a follow-up module to the previous higher authority module. Higher authority officers will respond to reports or complaints submitted for higher authority

investigation through this module. The response may include the proper reason for the update delay and the action taken to resolve it.

B. Police: This module contains the police department and all of the police's activities regarding any case or complaint. This module uses the administrator interface system to interact with the victim. This will contain the results of all police investigations and the identity of the cop who is in charge of a specific case reference number. After all the successful investigations and a court case result, the case can be closed. It has several submodules, which are decrypted as follows:

- i. The complaint list is a submodule that contains a list of all complaints filed by the victim. The data for the complaint list will be obtained from the victim's online complaint submission, which will be forwarded to the administrator, who will then forward it to it. The reference number and all of the information data about the case provided by the victim will be included in the complaint in this list. The police can also use the complaint list to take complaints directly to the police station because it is sometimes more convenient for a person to go to the police station and file a complaint. This will give the police system a new feature, but it will not eliminate existing options.
- ii. Cop assignment is a submodule in which various cops are given reference numbers for specific cases to investigate and solve. This will include a database that keeps track of which cops are assigned to which cases. This will make it easier to keep track of police officers and cases. This will assist the higher authority in taking action against the police officers who are handling the case for which the higher authority has been requested to conduct an investigation.
- iii. The third module is the regular update module. The officer in charge of the case updates the investigation report regularly after a set period. This will provide information to the administrator for the SMS and updated file modules. The SMS module will send information to the victim whenever an update is made. In contrast, the updated file module will compile all of the updates sent by the regular update module into a single file and send it to the victim when the victim makes a request.
- iv. When all investigations into a case are complete and the court has declared a valid and final outcome, the case termination module is activated. It will maintain databases for all closed cases, including all inquiries, investigations, and information gathered by police during the investigation. This will come in handy if the case needs to be reopened for any reason or if any information from the case is required in the future. This enables you to maintain a secure, well-structured, and well-managed case history.

4. RELATED WORK

- Demonstrates a system for assessing government transparency and determining the types of information that external stakeholders have access to. This assists the general public in learning about the government's policies.
- Describes a study to look into the factors of e-government based on transparency and trust to provide better information to the poor. In Palembang, develop the concept of a transparent and trustworthy e-

government model.

- Provides a framework for extracting open government data from government websites. Collect them during a repository and introduce special options to increase data transparency. A case study is presented that details the implementation of the framework on SIOPE, an Italian government portal that provides receipts generated by Italian businesses.
- Describes a survey conducted by a Tamil news channel and includes a photo in figure 4 that shows whether police are as friendly with the public as they should be. The news report includes video footage that clearly depicts police brutality toward the poor and helpless public. Despite knowing the whole truth and seeing all the injustice around them, no one is speaking out against it or raising their voice against it.



Figure 4: Police behaviour with public

- Is a report on the website slideshare.net that discusses India's long-standing corruption problem. It also details India's anti-corruption efforts throughout its history. Anna Hazare's protest for the Jan Lokpal bill, which was a huge step forward in the fight against corruption, is mentioned there. However, society has yet to come up with a suitable solution. It is also mentioned that the police department is corrupt. However, they have not offered a solution to these issues. As a result, the proposed system is the best effort to emerge as a solution in this field.
- Is a website for a club run by a man named Ashish Singhal. He has written about his feelings about the police department's flaws and corruption. He claims that the recruitment process is the primary cause of police corruption. He compared the number of I.P.S officers required to handle the system and the general public with the number of officers currently on the job and being recruited. He made some excellent points. The situation in the system and the police department is depicted using cartoon images.
- Is an online news publication that reports on events in Assam, including the arrest of two police officers on corruption charges. Figure 5 depicts the scenario as depicted in a photo posted by the journal. The cops demanded a bribe in order to tamper with the case investigation. This is the reason why the proposed system is required.



Figure 5: Corruption in the Police

- Is a news report which tells about a survey done all over India. The survey denotes the corruption level in different states of India. Karnataka comes on the top in the list exceeding Bihar and U.P. So the survey helps in finding the need for the system to be implemented in which region is the most.
- Represents a survey report on corruption in Indian institutes. After politics, the police department comes in second place in corruption that is having 70-75% of corruption. This shows how much is a need for an anti-corruption body in our society.
- Is a report prepared online which gives a clear idea about the growth in corruption in India. Politics and police are the areas in which growth is the most

5. RESULT

The proposed idea will culminate in a digital system for filing a police complaint. The system interface diagram is shown in Figure 6. The police and the victim will each have their own interfaces. The following diagram depicts the overall system and its interface management:

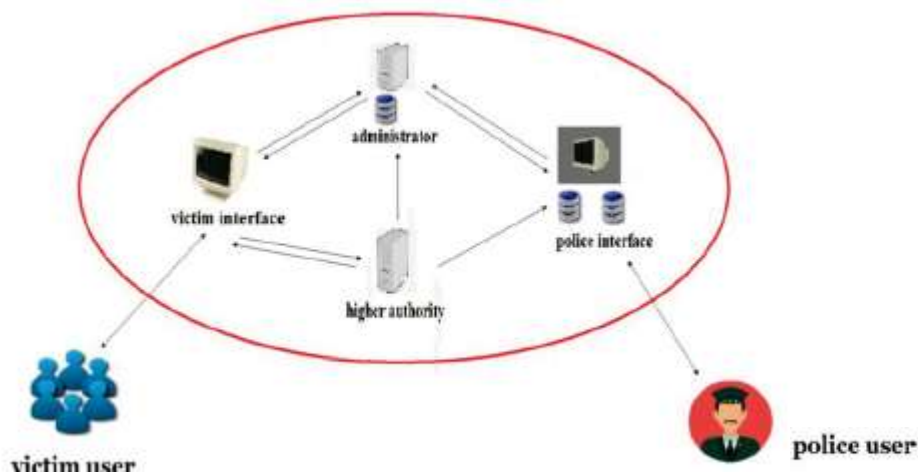


Figure 6: System interface diagram

The system has two types of users (victim and police), two servers (administrator and higher authority), and two types of interfaces (victim and police) (victim, police).

- The victim interface will be used to communicate with and exchange information with victims. It will collect data from the victim user and send it to the administrator, as well as respond to the

administrator's updates and acknowledgments to the victim user. It will also assist in reporting any issues with case updates to a higher authority server.

- The administrator is a server that provides services to clients such as victim and police interfaces. It also looks after both clients' databases. It keeps track of the complaint list database for the police interface. It will keep a database of updated files for the victim interface, which will be fetched by the victim using the complaint's reference number.
- The police interface will be used to communicate with the system. There will be two databases in this interface. The first is the complaint list database, which will be saved by the administrator each time a complaint is entered into the system. The police will only have read access to this database. Another database set will contain cop assignments for cases organized by reference number, as well as case updates and case closure.
- With only read permissions, the higher authority server will have access to both the administrator and police interface databases. So that all necessary data can be gathered from all sources and a fair decision by higher authorities can be made. Based on the complaint raised by the victim authority for higher authority investigation, it will fetch the databases of the administrator and police interface.

6. CONTRIBUTION TO THE SOCIETY

The proposed system offers a practical solution to Indians who are having difficulty filing police cases involving extortion and corruption. The goal here is to change the traditional methods of bringing F.I.Rs to the police station, which was causing public inconvenience and fear of torture by the police or the person against whom the complaint was filed. The public can now make decisions freely and without fear of being judged because the system ensures confidentiality. A victim can speak out against the guilty regardless of their power, personality, or reach. This will help people fight hooliganism, which is on the rise and wreaking havoc on many people's social environments and way of life. Digitization will help India maintain the true definition of democracy, which is desperately needed.

7. CONCLUSION

The proposed system above evolves the Indian police system and creates a digital F.I.R filing system. As a result, a completely effective crime investigation system will be stimulated. The system can take F.I.Rs from remote areas without requiring the victim to physically visit the police station, and it prevents any third-party interaction between the police and the victim. It provides complete oversight of a victim's filed case. It will aid in keeping the F.I.R records simple and clean. The F.I.R. process will become more legitimate. It will also be beneficial for the police to store the records database reliably and make it easily accessible. It will assist both the people and the government in becoming true to one another. This system will assist people in overcoming their fear and speaking out against any atrocity they are witnessing. As a result, the proposed system eliminates the possibility of corruption and ensures that all police investigation processes are overseen by the public, bringing transparency to crime investigation.

REFERENCES

1. Maria Cucciniello (2012), Assessing transparency in government: rhetoric, reality, and desire. In: 45th Hawaii International Conference on System Sciences
2. Darius Antoni1 (2017), Critical Factors of Transparency and Trust for Evaluating E-government Services for the Poor. In: second international conference on informatics and computing (ICIC)
3. Nicoletta Dessì (2016), Increasing Open Government Data transparency with a spatial dimension. In: 25th IEEE International Conference on Enabling Technologies: Infrastructure for Collaborative Enterprises
4. Carlino, D. 2017. introduzione al Processo Penale Telematico. Rome, italy: Scuola Superiore della Magistratura.
5. Contini, F. and Lanzara, G. F. 2018. The Elusive Mediation between Law and Technology. Undetectable Errors in ICT–Based Judicial Proceedings in Branco, P., Hosen, N. Leone, M. and Mohr, R. (eds.) Tools of Meaning. Canterano Rome, italy: Aracne Editrice.
6. Popa, Ion. 2019. Comments made at the Conference "e-Justice: Challenges and Opportunities in the Digital Era," held May 20–21, 2019, in Bucharest, Romania. Available at: <https://evidence2e-codex.eu/a/evidence2e-codex-at-e-justice-conference-2019-romania> .
7. Proceso Laboral Ordinario. 2019. Available at: <https://www.iberley.es/temas/esquema-proceso-laboral-ordinario-54551>.
8. <https://www.youtube.com/watch?v=ZTvpXoJHWRg>
9. <https://www.slideshare.net/DivyamTantia/main-23911441>
10. <http://www.ashishsinghal.club/2017/01/rationale-for-corruption-in-police.html>