

# Anonymous Complaint System for Smart City

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**Abstract:** *An information system is a very famous tool in this digital era. People all over this world use this tool to get and share information. Computer based system is one type of information system that very often to use in this era. It touches over all the sides of life nowadays. In our country we have government bodies (Municipality) which are responsible for maintaining and running cities. It's all their responsibilities to address the complaint of citizens. For this municipality has 2 ways, in first cameras or other surveillance devices have to be installed and second way is that citizens could report their problem to the municipality. The second way is mostly used because it is cheaper as compared to first one. But it takes paper work and time too because the citizens has to visit the ward office and report problem faced by them which can be solved by municipal corporation or as due to the emergence of internet and its various capabilities, there has been rise in the number of complaint sites which provides citizens a platform to lodge a complaint online. As mobile application is mostly used by people, this app will help people to lodge a complaint through it and can attach a picture of things which are causing problem and location will be tracked using GPS (Global Positioning System). The application also provides a user facility to view status of lodge complaint until is resolved, while online system will help officers at Municipality to solve/reject complaint with reasons and monitor the status of complaint. The Aim for creating this Application is to simplify the process of lodging complaint to respective Municipality and make it quick and cheaper.*

**Keywords:** Municipality, GPS, Mobile Application, Cameras Internet, Online, Complaint, Citizen

## I. INTRODUCTION

In India we don't have any direct communication between the government and public in an efficient way for solving the problems i.e. for getting a problem solved in our place we have to bribe the officials and get them solved in 2 months which can be solved actually in 1 month of time. In order to overcome this problem previously National Informatics Centre has launched a site named Prajavani through which public can post the petitions or complaints in the site and get them solved in a specified time and can also know the status of the complaint or petition he has lodged at any time. NIC has launched this site with the goal of Right to Information Act (RTI Act) i.e. providing the complete information of a place to the user at any time. But it failed in providing the complete information to the public and is providing only the complaint lodging facility to the public.

In order to make the goal of NIC (National Informatics Centre) come true we are going to develop a system which will be able to provide the complete information to the public at any point of time regarding the problems they are facing currently and what is the impact of it and then how effectively the funds are utilized for the development purpose can be known by public which also includes the online discussion forums and feedback forms which will help them to communicate well with the government. It concludes by publishing a newsletter and a magazine to the registered users of the system which gives the complete details of the district for every month. Municipality is responsible for providing Indian citizens basic urban service which lies with Nagpur Municipality. So NMC is responsible for administration and providing basic infrastructure for the city. For Lodging Complaint in NMC, much time is required and victim needs to go to municipality office and stand in queue. "SMART MAINTENANCE PORTAL" application is introduced to provide user a platform to lodge a complaint easily. So SMART MAINTENANCE PORTAL reduces people's efforts. Complaint Lodger can share location using GPS. This app deals with internal processing of complaints. The main purpose of this System is to help the public in knowing their place details and getting their problems solved online without going to the office regularly until the problem is solved.

### **1.1 Problem Definition**

To develop an application for complaint/smart maintenance portal. In recent years, with the development of computer sciences, computer technology has been applied to comprehensive fields. Education is one the major fields in the world. The web application has brought major changes all over the world. We develop a web application which helps in providing the UpToDate information via internet. The present scenario describes a system which involves process to be carried out manually which is time consuming. We implement an efficient and user friendly web application. Hence the application provides a solution through a simple interface which helps to overcome the time consuming process. Design and implementation of complaint/smart maintenance portal. It is a web base application for citizens to register complaints against the problems they are facing which can be solved by municipality. The frequency of usage and therefore the map of our behaviour on the Internet can be created to make more focused advertisement, to track us or even to steal our electronic identity. People are afraid to make complaint in any situation as their identity will disclosed to the people, which are against to them or by which they can face attacks. Common people don't complaint only because of this reason.

### **1.2 Objectives**

- It scope of the project is to be accessed anywhere in the organization the user can enter his details from any internet.
- Antiragging system.
- Anticorruption system.
- Complaint system.
- This policy applies to all complaints made by a student or other about any person and manages complaints made about suspect delivered fairly, efficiently and effectively and sends feedback.

## **II. LITERATURE SURVEY**

We have research and select a project for citizens to put their complaints about their environment. We have done this Complaint system for the Municipality. To ensure anonymous user authentication ABSs were introduced by Majietal. This was also a centralized approach. A recent scheme by Majietal. Takes a decentralized approach and provides authentication without disclosing the identity of the users. In this system we are going to use KDC for generation of encrypted Tokens and encrypted keys. Key distribution is done in a decentralized way. There is KDC which generates encryption and decryption keys and keys for signing. Creator on presenting token to KDC it will provide secret keys and keys for signing. The database takes decentralized approach in distributing secret keys and attributes to user. Ruj et Al proposed a distributed access control mechanism in clouds. However, the scheme did not provide user authentication. The other drawback was that a user can create and store a file and other users can only read the file. Write access was permitted to users other than the creator. Wang et al addressed secure and dependable database storage. The database is also prone to data modification and server colluding attacks. Although Yang et al proposed a decentralized approach; their technique does not authenticate users, who want to remain anonymous while accessing the cloud. ABS (Attribute-based signature) is a protocol which was proposed by Maji et al. In ABS, users have a claim predicate associated with a message. The claim predicate helps to identify the user as an authorized one, without revealing its identity.

Diego León, Franklin Mayorg, Javier Vargas, Renato Toasa, David Guevara “Using of an anonymous communication in e-government services: in the prevention of passive attacks on a network” Nowadays citizens live in a world where communication technologies offer opportunities for new interactions between people and society. Clearly, e-government is changing the way citizens relate to their government, moving the interaction of physical environment and management towards digital participation.

Russell W. F. Lai, Kam-Fung Cheung, Sherman S. M. Chow, Anthony Man-Cho So “Another Look at Anonymous Communication “Anonymous communication is desirable for personal, financial, and political reasons. Despite the abundance of frameworks and constructions, anonymity definitions are usually either not well defined or too complicated to use. In between are ad-hoc definitions for specific protocols which sometimes only provide weakened anonymity guarantees.

Prasanta Kumar Roy, Krittibas Parai, Sathi Ball, Bipin Kumar “A New Enhanced Secure Anonymous Communication with Authentication and Session Key Agreement in Global Mobility Network “Recently, several protocols have been proposed to accomplish user authenticity with proper session key establishment in Global Mobility Network. Unfortunately, some of them still suffer from various security threats and high computational complexity.

Tim Grube, Sascha Hauke, Jörg Daubert, Max Mühlh user “Ant Colony Optimization. A Solution to Efficient Anonymous Group Communication” Online Social Networks (OSNs) are the core of most communications nowadays, leading to possibly sensitive information exchange. Privacy is an important building block of free societies, and thus, for OSNs. OSNs function as group communication systems and can be built in centralized and distributed styles.

Sarra JEBRI, Mohamed ABID, Ammar BOUALLEGUE “STAC-Protocol: Secure and Trust Anonymous Communication Protocol for IoT” Security and privacy are prominent tasks in resource constrained devices in Internet of Things (IoT) and

Wireless Sensor Networks (WSN). Therefore, to ensure anonymity and trust, concealing nodes' real identity trust management are mandatory.

Jan Hajny, Lukas Malina and Vaclav Zeman “PRACTICAL ANONYMOUS AUTHENTICATION Designing Anonymous Authentication for Everyday Use” We use authentication services many times a day. Without user authentication, it would be impossible to use email accounts, discussion boards, e-banking or even electronic communication. On the other hand, we release a lot of personal information during every authentication process. Our login can be linked to used services and assets by service providers.

### III. FEATURES

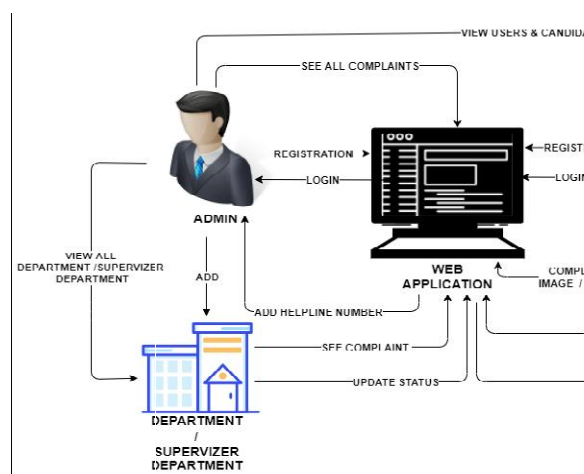
- Receiving public complains and providing them status.
- Higher speed of receiving complaints.
- Distribution of related complaints among Different Department.
- Complaints solving within one week otherwise complaint will be forwarded to officer and action taken against employee.
- Wastage of time and paper will be stop.

### IV. DESIGN CONCEPT

The Complaint /Smart Maintenance System is one of the most significant and resource intensive project in which proposed system the citizen need not go to the government office for getting his problem solved. He can get his problem solved by posting his problem in this proposed system thus is to encourage and assist public sector and he can suggest a possible solution to the problems posted on the system. He can even get the information of the funds and other details of his place in detail through this system. Our proposed system provides solution to existing system by extending its facilities as follows:

- Registration is provided so that officer can solve the problems easily
- Complete information regarding the place is displayed.
- Can suggest a solution for solving the problems in a better way,
- Can comment on the government's decisions.

The system architecture gives an overview of the working of the system. In the proposed system we have the following new implementations: Users of the system, Customers of the Complaint Maintenance System. By using this application people can register their complaints in easy and proper format. They will also well aware about their complaints progress. They can also provide feedback about their complaints progress whether they are satisfied or not. Also they user can post their requirements through this system and they will receive needed items by admin within couple of hours, its depending on the needed item and you can also look your status about your requirements. These user complaints, needs requirements maintain by admin. The User post feedback of these CMS system and admin can view this feedback.



**System Architecture Diagram**

## V. IMPLEMENTATION DETAILS (MODULES)

**Login Module:** The main activities in the application are the user login page for user. The other modules are followed by this login page. This module records only user and password of the user.

**Registration Module:** Another main function of our proposed system is registration, to register with the unique application details such as name; password, email, place and time are required.

### Admin(Web App):

- Login: Admin can login in his personal account using id and password.
- Add Department.
- Admin can View all Department edit, delete.
- View All Data: Admin can view all Data.
- Add road maintenance deadline with day wise.
- Add helpline Numbers.
- Who has a valid login id and password? The operators will get the complete information about the place including the problems from the survey officials. These operators are spread throughout the district and will process the information to the corresponding authorities and will update the system with current information.
- Admin is the end user who has a valid login id and password. To perform Technical administrative work like to Create Logins, Add and Modify Officer information and to solve the technical problems etc. Each District has one Super User.

### Department(Web App) :

- Can View complaints.
- Can close complaint with reason or comment.
- Can update status.
- Will get notification as per schedule added by admin.
- Department is the end user who has a valid login id and password. Department will monitor a place without going to their and get the information and takes the corresponding action. Then discusses it with higher officials.

### User/Public(Web App):

- Can Register & Login.
- Can Complaint with Images / Information with Department.
- View all complaint.
- Comment option on complaint.
- Can check status of complaints.

- User is the end user who has a valid login id and password. User can login to the system and know the complete information and can post the problem. User can login to the system and know the complete information and can post the problem.

**Supervisor Department:**

Supervisor is the who has a valid login id and password.

View deadline crossed complaint.

Can Comment on status f complaint Change priority can change.

**VI. CONCLUSION**

We have presented a decentralized access control technique with anonymous authentication, which provides user revocation and prevents replay attacks. Key distribution is done in a decentralized way. The proposed system provides an Anonymous Authentication of Decentralized Access Control of Data Stored in database. The user credentials are verified by cloud who stored the data, but database does not know who the user is. Also, we have added a timer function which will automatically upload the file after a certain period because if some evidence is to be uploaded and the authentic user is not able to post it to the public due to some reason, then this timer function will upload the file automatically.

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