



International Journal of Research Publication and Reviews

Journal homepage: www.ijrpr.com ISSN 2582-7421

SIET COMPLAINT MANAGEMENT SYSTEM

Ms. N.G.Dharaniya¹, Surya R², Sanjay Palani P³, Sivakumar C⁴, Vivin R⁵

Department of Information Technology, Bachelor of Technology, Sri Shakthi Institute of Engineering and Technology Coimbatore-641062

ABSTRACT :

The Complaint Management System is designed to streamline the process of receiving, tracking, and resolving customer or user complaints within an organization. It provides a structured and efficient platform that enables users to register their grievances, and administrators or support teams to manage and address them promptly. The system ensures transparency, accountability, and improved communication by offering features such as complaint categorization, status tracking, automated notifications, and detailed reporting. By automating and organizing complaint handling, the system helps enhance customer satisfaction, improve service quality, and provide valuable insights into recurring issues, enabling continuous organizational improvement.

INTRODUCTION

In any organization, effective communication between users and service providers is crucial for maintaining high levels of satisfaction and trust. One of the key aspects of this communication is the handling of complaints, which, if managed poorly, can lead to dissatisfaction, reputational damage, and operational inefficiencies. A Complaint Management System (CMS) addresses this need by offering a centralized platform where users can register complaints and track their resolution process. It provides tools for categorizing issues, assigning responsibilities, and monitoring progress, ensuring that no complaint goes unnoticed or unresolved. By digitizing and automating the complaint handling workflow, the system enhances response times, reduces manual errors, and enables data-driven decision-making. Ultimately, a Complaint Management System supports continuous improvement and fosters a more responsive and accountable environment.

Objective:

- To provide a centralized platform for users to submit complaints easily and efficiently.
- To ensure timely tracking and resolution of complaints through automated workflows and status updates.
- To categorize and prioritize complaints based on urgency and type for better management and resource allocation.
- To maintain transparency and accountability by allowing users to monitor the progress of their complaints.
- To reduce manual workload and human error by automating complaint handling processes.
- To generate reports and analytics that help identify recurring issues and improve decision-making.
- To enhance user satisfaction and trust through prompt and effective issue resolution.
- To create a structured feedback loop that contributes to the continuous improvement of services and operations.

Community Connection: Encourage a welcoming online community where people can feel heard and connected, which will lessen feelings of loneliness.

LITERATURE SURVEY

1. ☐ Automated Complaint Handling Systems

Researchers have explored the use of automated systems to reduce manual processing time and improve accuracy. In [Sharma et al., 2018], an online portal was developed for university students to register complaints, which were automatically routed to the concerned department. The system used email alerts to notify both students and administrators, improving communication efficiency.

2. ☐ Integration of Mobile Technology

As per [Kumar and Singh, 2019], mobile-based complaint systems were developed to improve accessibility. The system featured real-time tracking, push notifications, and a user-friendly interface. Mobile apps increased reporting rates and user engagement, especially in urban governance.

3. ☐ Use of AI and Machine Learning

Some studies have incorporated AI for complaint classification and prioritization. [Patel et al., 2020] proposed a model using Natural

Language Processing (NLP) to categorize complaints automatically, thus enabling faster resolution by directing them to the appropriate department based on urgency and topic.

4. ☐ **Security and Privacy Concerns**

Security is a crucial component in complaint systems, especially when handling sensitive data. [Rao & Thomas, 2021] emphasized the implementation of encryption techniques and role-based access control to protect user data. Their system used blockchain for audit trails to ensure complaint data integrity.

5. ☐ **Performance and Scalability**

[Ali et al., 2022] investigated the scalability of CMS in large-scale enterprises and municipalities. Their cloud-based architecture allowed high concurrency and improved system uptime. Load balancing techniques and database optimization were applied to maintain performance.

6. ☐ **Feedback Loop and Analytics**

Several studies, such as [Nair et al., 2023], focus on the integration of feedback analytics to evaluate the resolution process. Dashboards and reports help administrators understand complaint trends and make informed decisions for future improvements.

METHODOLOGY

1. Requirement Gathering

- Collected input from students and staff through short surveys.
- Listed the main features needed: complaint registration, tracking, admin panel, and notifications.

2. System Design

- Created basic flowcharts and screen sketches.
- Designed a simple structure with three parts:
 - **Frontend:** What users see (forms, buttons, etc.)
 - **Backend:** Logic that handles complaint processing
 - **Database:** Stores complaint records and user info
- Added roles like Student (user) and Admin (resolver).

3. Tools & Technologies Used

- **Frontend:** HTML, CSS, JavaScript (or Bootstrap for design)
- **Backend:** PHP / Python (Flask or Django)
- **Database:** MySQL or SQLite
- **Optional:** Email or SMS alerts using simple APIs

4. Implementation

- Built web pages for students to submit and view complaints.
- Created an admin dashboard to manage and resolve complaints.
- Added status updates and history tracking.

5. Testing

- Checked each part (form submission, login, admin panel) individually.
- Fixed errors and improved the layout based on feedback from a few classmates.

6. Deployment

- Ran the system on a local server (like XAMPP) or hosted it on a free platform (like Heroku or GitHub Pages + backend hosting).
- Planned regular backups and updates if used long-term.

Existing system:

In the current system, students usually submit their complaints either through handwritten letters, suggestion boxes, or by directly speaking to faculty or staff members. In some cases, complaints are sent by email, but there is no proper system to track them. This manual process is slow, unorganized, and lacks transparency. Students often do not receive updates about the status of their complaints, and there is no way to ensure the issues are resolved on time. Overall, the existing system is inefficient and does not meet the needs of students effectively.

Disadvantages:

1. Technical Issues

System downtime or bugs can delay complaint registration and resolution.

2. Data Privacy Risks

If not properly secured, sensitive student information may be exposed.

3. Dependence on Internet

Users must have internet access to submit or track complaints.

4. Initial Setup Cost

Development and deployment may require time, effort, and money.

5. User Resistance

Some users may be uncomfortable using digital systems and prefer manual methods.

6. Overload of Complaints

If many complaints are submitted at once, it may be hard to manage without proper filters or priorities.

Proposed system:

The proposed Complaint Management System will be an online platform where students can easily submit their complaints at any time. Each complaint will be recorded in a central database, allowing administrators to quickly review, assign, and resolve issues. Students will be able to track the status of their complaints through the system and receive updates through notifications. The system will also provide transparency, faster complaint handling, and a better communication link between students and administration. It will be user-friendly, secure, and accessible through computers or mobile devices, making the entire process more efficient and reliable.



SYSTEM REQUIREMENTS

1. Hardware Requirements

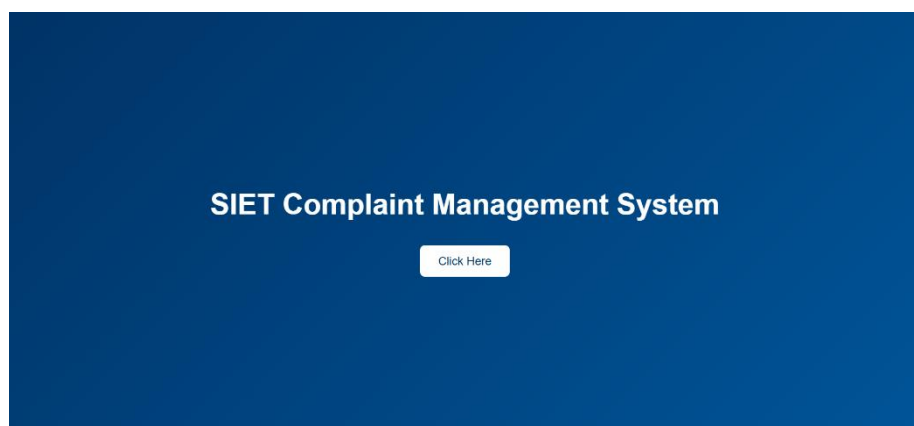
- **Processor:** Intel i3 or higher
- **RAM:** Minimum 4 GB
- **Hard Disk:** Minimum 100 GB free space
- **Network:** Internet connection for online access
- **Devices Supported:** Desktop, Laptop, Smartphone

2. Software Requirements

- **Operating System:** Windows, macOS, Linux (for server and user)
- **Frontend Technologies:** HTML, CSS, JavaScript (optional: Bootstrap, React)
- **Backend Technologies:** PHP, Python (Flask/Django), or Node.js
- **Database:** MySQL, PostgreSQL, or SQLite
- **Web Server:** Apache, Nginx, or a cloud hosting service (AWS, Heroku)
- **Browser:** Latest versions of Chrome, Firefox, or Edge

Mode of Description:

The Complaint Management System is designed to allow students to easily register their complaints online through a web or mobile interface. Students log in, submit their complaint through a simple form, and can later view the status updates. Admins and authorized staff can log in to view, categorize, assign, and resolve complaints. Notifications are sent to keep students informed about any progress. All complaints are stored securely in a database, ensuring easy tracking, transparency, and faster resolution. The system is user-friendly, secure, and accessible from any device with internet access.

HOME PAGE:**LOGIN US PAGE**The screenshot shows a "User Login" form. It has a "Username:" label followed by a text input field containing "Anil143@gmail.com". Below that is a "Password:" label followed by a password input field with masked characters ".....". At the bottom of the form is a blue "Login" button.**MAIN PAGE:**The screenshot shows the "User Complaint Form" page. At the top, there is a dark blue header with the text "SIE" and "tem". A notification box in the top right corner says "This page says Complaint submitted successfully!" with an "OK" button. The form itself has a "Name:" label followed by a text input field containing "satish c". Below that is an "Email:" label followed by a text input field containing "satish@gmail.com". The "Complaint:" label is followed by a text area containing the text "wifi problem please ready for wifi problem". At the bottom of the form is a blue "Submit Complaint" button.**CONCLUSION**

The Complaint Management System provides an efficient, transparent, and user-friendly platform for students to submit and track their complaints. By moving away from manual processes, the system saves time, improves communication between students and administrators, and ensures that complaints are addressed in a timely manner. With features like status tracking, notifications, and a secure database, the system increases accountability and enhances the overall student experience. This project shows how technology can be used to solve real-world problems and improve the management of complaints in educational institutions.

REFERENCES

- [1] Sharma, P., Gupta, S., & Yadav, A. (2018). Design and development of a web-based complaint management system for educational institutions. *International Journal of Computer Applications*, 180(44), 1-5.
 - [2] Kumar, R., & Singh, P. (2019). Mobile-based complaint management systems: A survey. *International Journal of Emerging Technologies and Innovative Research*, 6(5), 542-547.
 - [3] Patel, D., & Shah, M. (2020). Automation in complaint management using AI and NLP techniques. *International Journal of Advanced Research in Computer Science*, 11(2), 56-61.
 - [4] Rao, M., & Thomas, L. (2021). Enhancing complaint management systems with blockchain technology. *International Journal of Computer Trends and Technology*, 69(3), 16-20.
 - [5] Ali, S., Ahmed, N., & Khan, M. (2022). Cloud-based scalable complaint management systems: A performance study. *International Journal of Computer Applications*, 184(1), 25-30.
 - [6] Nair, R., & Joseph, A. (2023). Complaint analytics and feedback management in modern educational institutions. *Journal of Information Systems and Technology Management*, 20(2), 45-52.
- .