© MAY 2026 | IRE Journals | Volume 9 Issue 11 | ISSN: 2456-8880
DOI: https://doi.org/10.64388/IREV9I11-1717450

Smart Complaint Management System

MALAIKA SAMEER SAYYED[1], SUMIT NAVNATH POKALE[2], ARPIT RAJESH GUPTA[3], SAKSHI HANUMANT BHANGE[4], DR. SIVARAM PONNUSAMY[5], UMESH PAWAR[6]
[1, 2, 3, 4, 5, 6]*Sandip University, Nashik*

Abstract: ***This paper presents the design and implementation of a Smart Complaint Management System (SCMS) for universities integrated with a Parent Notification Module. Traditional complaint management systems in educational institutions are often inefficient, lack transparency, and fail to provide timely resolution. The proposed system introduces a centralized digital platform that enables students to submit complaints, track their status, and receive timely updates. Additionally, the system incorporates role-based access control, workflow automation, and real-time parent notifications to enhance accountability and communication. Experimental observations indicate improvements in complaint resolution time, system transparency, and stakeholder satisfaction. The proposed solution contributes to efficient grievance redressal and promotes better institutional governance.***

I. INTRODUCTION

In higher educational institutions, grievance redressal mechanisms play a critical role in maintaining academic discipline and institutional reputation. Traditional complaint systems are often paper-based or semi-manual, leading to inefficiencies, lack of transparency, and delays in resolution. Students frequently face challenges in tracking the progress of their complaints, while administrators struggle with managing large volumes of unstructured data.

To address these challenges, this paper proposes a Smart Complaint Management System (SCMS) that digitizes complaint handling, ensures transparency, and integrates a parent notification module to keep stakeholders informed at every stage.

II. IDENTIFY, RESEARCH AND COLLECT IDEA

The development of the proposed system began with identifying limitations in traditional complaint management systems used in universities. Most existing systems are manual or semi-digital, resulting in delayed responses, lack of transparency, and inefficient complaint tracking. Students often face difficulties in monitoring the status of their complaints, while administrators struggle to manage and prioritize issues effectively. Additionally, parents remain uninformed about institutional concerns affecting their children.

To analyze these challenges, basic research was conducted through discussions with students and faculty members, along with a review of existing grievance systems. The study revealed the absence of automation, escalation mechanisms, and proper communication channels.

Based on these findings, the idea of a Smart Complaint Management System was proposed. The system aims to provide a centralized, automated platform with role-based access, real-time tracking, and parent notification features to improve efficiency, transparency, and accountability.

III. WRITE DOWN YOUR STUDIES AND FINDINGS

The Smart Complaint Management System was developed as a web-based application using modern technologies such as HTML, CSS, JavaScript (React), Node.js/Python, and MySQL. The system allows students to submit complaints digitally, upload supporting documents, and track the status in real time. Role-based access control ensures that students, faculty, and administrators have specific permissions within the system.

An automated workflow is implemented where complaints are assigned to the relevant department and updated at each stage. The system also includes an escalation mechanism for unresolved complaints and a parent notification module to ensure transparency.

The findings indicate that the system significantly reduces complaint resolution time and improves efficiency. It enhances communication between stakeholders and minimizes manual effort. Overall, the proposed system provides a reliable, transparent, and scalable solution for grievance management in universities.

IV. GET PEER REVIEWED

The developed Smart Complaint Management System was reviewed by faculty members and peer groups to evaluate its functionality, usability, and performance. The review process included testing the complaint submission process, tracking mechanism, and notification features. Feedback was collected regarding system design, user interface, and workflow efficiency.

Several suggestions were provided, including improving the user interface, optimizing the complaint tracking process, and enhancing notification accuracy. Minor bugs and usability issues were also identified during testing.

Based on the feedback received, necessary modifications were implemented to improve system performance and reliability. This review process helped in refining the system and ensured that it meets user requirements effectively while maintaining accuracy and efficiency.

V. IMPROVEMENT AS PER REVIEWER COMMENTS

Based on the feedback received during the peer review process, several improvements were implemented to enhance system performance and usability. The user interface was refined to make it more intuitive and user-friendly. Backend processes were optimized to reduce delays in complaint tracking and improve system efficiency. The notification module was enhanced to provide accurate and timely updates to both students and parents. Additionally, minor bugs identified during testing were resolved to ensure system reliability. The escalation mechanism was also improved for better handling of unresolved complaints, resulting in increased transparency, efficiency, and overall user satisfaction.

VI. CONCLUSION

The Smart Complaint Management System provides an efficient and transparent solution for handling grievances in universities. By digitizing the complaint process and incorporating features such as role-based access, automated workflow, and parent notifications, the system significantly improves complaint resolution efficiency and accountability. It reduces manual effort, enhances communication among stakeholders, and ensures real-time tracking of complaints. The implementation of this system contributes to better institutional management and user satisfaction. Future enhancements may include integration of artificial intelligence for complaint classification, development of a mobile application, and advanced data analytics to further improve system performance and decision-making capabilities.

APPENDIX

The appendix includes additional supporting materials such as system screenshots, database schema, and sample complaint records used during testing. These details provide further clarity on the implementation and functionality of the Smart Complaint Management System.

ACKNOWLEDGMENT

We would like to express our sincere gratitude to Sandip University, Nashik, for providing the necessary infrastructure and support for this project. We are especially thankful to our project guide, Dr. Sivaram Ponnusamy, for his valuable guidance, encouragement, and continuous support throughout the development of this work. We also extend our appreciation to the faculty members of the Computer Science and Engineering department for their insightful suggestions. Our thanks go to our peers for their constructive feedback during testing and review. Finally, we acknowledge the support of our families for their motivation and encouragement during the completion of this project.

REFERENCES

[1] S. Rao, "Workflow Automation in Web Systems," *IEEE Conference on Smart Systems*, 2018.
[2] IEEE Standards Association, *Software Engineering Standards*, IEEE, 2017.
[3] P. Jalote, *Software Project Management in Practice*, Addison-Wesley, 2002.
[4] R. Pressman, *Software Engineering: A Practitioner's Approach*, McGraw-Hill, 2014.