

SDM Institute of Technology, Ujire
Department of Information Science and Engineering
Mini-Project Synopsis
5th Semester ISE-2024
Team ID: 5ISMP07

Title	A Secure Full Stack Voting System for Transparent, Reliable, and Scalable Digital Elections.
Abstract	This project proposes a full stack voting system designed to ensure transparency , security, and trust in the electoral process through a combination of modern web technologies and secure backend architecture. The system integrates frontend and backend components to provide a seamless web application as well as android application where eligible voters can securely cast their votes. The backend handles authentication, vote encryption, and secure storage using databases and server-side logic, ensuring that votes are tamper-proof and cannot be manipulated. Voter anonymity is maintained through secure protocols, while access control ensures that only authorized voters can participate.
Objectives	<ul style="list-style-type: none"> ➤ Ensure secure and immutable vote storage. ➤ Provide voter anonymity while maintaining eligibility. ➤ Eliminate the need for centralized voting authorities. ➤ Enhance transparency and reduce electoral fraud. ➤ Create a scalable and trustworthy voting platform.
Methodology	The system will be built as a full stack web application, allowing only eligible participants to vote. Server-side logic will be used to validate votes, ensuring they meet eligibility criteria and preventing duplicate voting. The votes will be securely encrypted and stored in a database, ensuring data integrity and protection. The front-end interface will be user-friendly, enabling seamless voter interaction.
Proposed outcome	The full stack voting system will provide a secure, transparent, and reliable digital platform for conducting elections. It will enhance electoral integrity by validating voter eligibility, preventing duplicate votes, and securely storing data in the backend. Voters will benefit from privacy and anonymity while still enabling verification of their votes, thereby promoting trust in the system. By integrating both frontend and backend, the system removes dependence on manual processes and reduces risks of manipulation. Additionally, it will be scalable and cost-efficient, capable of handling large-scale elections with real-time results. Ultimately, it will improve voter participation and confidence in electoral processes.
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