

Online Voting System with Face Recognition

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Abstract: Today's increasing demand for a secure and transparent voting system has highlighted the limitations of traditional election methods, such as impersonation, duplicate voting, and high administrative effort. To address these challenges, this project introduces an Online Voting System with Face Recognition, developed as a web and mobile-based platform. The system verifies voter identity through live facial recognition integrated with Aadhaar and Election Commission records, ensuring that only eligible and genuine voters are allowed to participate in the voting process.

After successful verification, voters can cast their vote through a simple and fair interface where all candidates and symbols are displayed according to Election Commission guidelines. The system enforces the one voter-one vote rule by blocking repeat access and securing all voting data using encryption and strict validation controls. This solution aims to improve election security, reduce fraud, and make voting more accessible, efficient, and trustworthy through the use of modern digital technologies.

Keywords: Online Voting System, Face Recognition, Biometric Authentication, Aadhaar Verification, Election Commission, Web Application, Mobile Application, Data Security, One Voter One Vote, Digital Democracy