

Project Title

Real-Time University Voting System

Introduction

The Real-Time University Voting System is a secure, web-based electronic voting platform designed for university student elections. It replaces manual paper-based voting with a digital solution that enhances transparency, accuracy, and efficiency while minimizing human errors and logistical challenges.

Problem Statement

Many universities continue to rely on manual ballot-based voting systems that are time-consuming, costly, and susceptible to manipulation and counting errors. The lack of real-time result visibility and effective voter authentication further undermines confidence in election outcomes. These challenges highlight the need for a secure and transparent digital voting solution.

Project Objectives

The objectives of the project are to:

- Develop a secure digital voting platform for students.
- Enable real-time vote counting and live result display.
- Verify voter eligibility using registration numbers and surnames.
- Reduce election costs, processing time, and human errors.
- Increase transparency and trust in student elections.

Scope of the System

The system will provide student authentication, a web-based voting interface, an administrative dashboard for candidate management and result monitoring, a real-time vote counting engine,

and essential security features such as one-time voting and audit logs. The scope is limited to university student elections and excludes external or national voting processes.

Technology Stack

The system will utilize HTML, CSS, and JavaScript for the frontend, PHP or Node.js for backend development, MySQL for database management, and cPanel for hosting. Security measures will include password hashing, input validation, and anti-duplication mechanisms.

Expected Outcomes

The expected outcomes include faster and more reliable student elections, elimination of vote-counting errors, improved transparency through real-time results, increased voter participation, and a scalable system suitable for adoption by universities in Tanzania.

Conclusion

The Real-Time University Voting System presents a modern and secure approach to managing student elections. Its implementation will enhance efficiency, transparency, and trust in democratic processes within the university environment.