

Appendix A: User Manuals

A.1 Introduction

This appendix has comprehensive user manuals for all three positions in the E-Vote system: Admin, Auditor, and Voter. Each of the manuals has step-by-step guidelines for moving around the user interface, performing role-specific operations, and troubleshooting common problems.

The E-Vote website is at: <https://e-vote-x.vercel.app>

A.2 Admin User Manual

A.2.1 Login and Authentication

1. Accessing the System
 - a. Go to <https://e-vote-x.vercel.app>
 - b. Type in your admin password and username
 - c. If asked to provide biometric identification, comply with the on-screen prompts
2. Dashboard Overview
 - a. Once logged in successfully, you will be automatically routed to /admin
 - b. Its dashboard displays key metrics like:
 - i. Registered users total
 - ii. Biometric registration statistics
 - iii. Recent user additions
 - iv. Recent election creations
 - v. Active election status

A.2.2 User Administration

1. Viewing Users
 - a. Access /admin/users through sidebar
 - b. It is shown as a table with the following columns:
 - i. Username
 - ii. Email
 - iii. Department
 - iv. Role
 - v. Biometric registration status
 - vi. Action buttons
2. Creating a New User
 - a. Select the “Add User” button at the top of the list of users
 - b. Complete all required fields in the form:
 - i. Username (should be unique)
 - ii. Email (must be valid format)
 - iii. Password (minimum 6 characters)
 - iv. Department (select from dropdown)
 - v. Role (Admin, Auditor, or Voter)
 - vi. Click “Create User” to save
3. Editing a User
 - a. Find the target user in the table
 - b. Click the edit (pencil) icon in the Actions column
 - c. Update the user information as needed
 - d. Click “Update User” to save updates

4. Deleting a User
 - a. Identify the target user from the table
 - b. Click on the delete (trash) icon within the Actions column
 - c. Confirm deletion in popup dialog

A.2.3 Electoral Management

1. Viewing Elections
 - a. Go to /admin/elections via the sidebar
 - b. In a table containing the following columns for:
 - i. Election name
 - ii. Description
 - iii. Begin date/time
 - iv. End date/time
 - v. Department
 - vi. Status
 - vii. Action buttons
2. Creating a New Election
 - a. Click the “Create Election” button above the list of elections
 - b. Complete all required fields:
 - i. Election name
 - ii. Position
 - iii. Start date and time
 - iv. End date and time
 - v. Department
 - c. Click “Add Candidate” to input candidate details:

- i. Applicant name
 - ii. Candidate Picture
- d. Repeat for more candidates
- e. Select “Create Election” to save
- 3. Editing an Election
 - a. Locate the election you want in the table
 - b. Click on the edit (pencil) icon in the Actions column
 - c. Modify the voting details as required
 - d. Click “Update Election” to refresh changes

A.2.4 Profile Management

- 1. Reviewing and Updating Profile
 - e. Navigate to /admin/profile through the sidebar
 - f. Review current profile information
 - g. Click “Edit Profile” to modify personal details
 - h. To change password, type current password and new password
 - i. Click “Update Profile” to save changes

A.3 Auditor User Manual

A.3.1 Login and Authentication

- 1. Accessing the System
 - a. Navigate to <https://e-vote-x.vercel.app>
 - b. Enter your auditor login details (password and username)
 - c. If requested for biometric verification, follow on-screen instructions

2. Dashboard Overview
 - a. Logged in to /auditor by default upon a successful login
 - b. The monitoring metrics which include:
 - i. User statistics
 - ii. Active election status
 - iii. Recent system activities
 - iv. Voting participation rates

A.3.2 User Monitoring

1. Viewing Users
 - a. Go to /auditor/users via the sidebar
 - b. View user list in read-only mode
 - c. Search and filtering capabilities for individual users

A.3.3 Election Monitoring

1. Viewing Elections
 - a. Go to /auditor/elections through the sidebar
 - b. See the elections list in read-only form
 - c. Employ search and filtering functionality to identify specific elections
2. Monitoring Active Elections
 - a. Click on a live election to see current participation figures
 - b. Track voter turnout by department
 - c. Review timestamp voting activity logs
3. Confirming Election Results
 - a. Select a completed election to view results

- b. Check percentages and vote tallies
- c. Verify result calculations with raw vote data
- d. Verify audit logs for anomalies

A.3.4 Profile Management

1. Profile Viewing and Editing
 - a. Go to /auditor/profile from the sidebar
 - b. Review current profile information
 - c. Choose “Edit Profile” to update personal information
 - d. To reset the password, enter current password and new password
 - e. Click “Update Profile” to save changes

A.4 Voter User Manual

A.4.1 Login and Authentication

1. Accessing the System
 - a. Navigate to <https://e-vote-x.vercel.app>
 - b. Enter your voting credentials (username and password)
 - c. If requested to present biometric verification, follow on-screen instructions
2. Dashboard Overview
 - a. Once logged in successfully, you are redirected to /user automatically
 - b. The dashboard shows:
 - i. Voting you can do
 - ii. Your vote history statistics
 - iii. Result of completed elections (if published)

A.4.2 Voting in Elections

1. Viewing Available Elections
 - a. Go to /user/elections via the sidebar
 - b. Upcoming elections you can vote for are shown as cards
 - c. Every card displays:
 - i. Election name
 - ii. Description
 - iii. Begin and end dates
 - iv. Voting status
2. Casting a Vote
 - a. Choose an active election card
 - b. Review the list of candidates
 - c. Tap on the card of your preferred candidate
 - d. Confirm your selection and act accordingly as per the modal
 - e. Receive confirmation of your successful vote
3. Watching Election Results
 - a. Go to /user/elections via sidebar
 - b. Completed elections with published results are indicated as such

A.4.3 Vote History

1. Viewing Your Voting History
 - a. Access /user/votes through the sidebar
 - b. Verify cards with all the elections you've voted in
 - c. Every card displays:

- i. Election name
- ii. Your chosen candidate
- iii. Election status (current/completed)
- iv. Results status (if election completed)

A.4.4 Profile Management

1. Viewing and Editing Profile
 - a. Go to /user/profile via the sidebar
 - b. Check recent profile data
 - c. Click “Edit Profile” to modify personal information
 - d. To change password, enter current password and new password
 - e. Click “Update Profile” to save changes

A.5 Troubleshooting Common Issues

A.5.1 Login Issues

1. Biometric Verification Failures
 - a. Offer suitable lighting and positioning for biometric capture
 - b. If repeated failures occur, call system administrator

A.5.2 System Access Issues

1. Page Not Found Errors
 - a. Verify you’re on the correct URL
 - b. Check your internet connection
 - c. Clear browser cookies and cache

- d. If not corrected, contact technical support
2. Permission Denied Messages
- a. Make sure you're logged in with the correct account
 - b. Ensure your delegated role has authority for the asked action
 - c. Contact an administrator if you believe you are entitled to

A.5.3 Voter Problems

1. Can't See an Election
- a. Verify the election is active (validate dates)
 - b. Check your department's qualification for the election
 - c. Reach out to an administrator if you believe you need access
2. Vote Not Confirmed
- a. If you receive an error while voting, record the error code
 - b. Try refreshing the page and voting again
 - c. If the issue continues, contact technical support with the error code.

A.5.4 Contact Information

For technical assistance or assistance concerning the E-Vote system, utilize:

- Email: support@mcs-nust.edu.pk
- Department of Computer Software Engineering, Military College of Signals, NUST