
User Manual

for

SAC Election Software

Version 1.0

Prepared by

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Contents

1	INTRODUCTION AND PURPOSE	2
2	DOCUMENT OBJECTIVE	2
3	INTENDED AUDIENCE	3
4	HARDWARE REQUIREMENTS	3
5	SOFTWARE REQUIREMENTS	3
6	USER INTERFACE	4

1 Introduction and Purpose

The *SAC Election Software* serves as a platform for conducting the annual SAC election. SAC elections are usually conducted using Google Forms. As the results are calculated manually by the administrator, they can simply be tampered with. The administrator may also see who each voter votes for, and this information could be leaked. All of these flaws and concerns add up to Google Forms not being the ideal tool for conducting elections.

These significant concerns are addressed by our software. The software provides an appealing and user friendly interface for the users. Admins can easily set up an election by setting a schedule, and adding or deleting candidates for every position. Once the election is live, people can view the candidates and cast their votes. After the voting time has ended, the software calculates the results automatically, and users can view them without logging in. The software has certain constraints that prevent anyone from tampering with the result. Our software enables a smooth and transparent election process.

2 Document Objective

- To give the user the knowledge they need to utilise the product appropriately
- Specify the software and hardware prerequisites
- To help users (both voters and administrators) understand the full functionality of the web application.

3 Intended Audience

The purpose of this manual is to inform end users how to utilise this web application.

- Students of National Institute of Technology, Calicut who wish to cast their votes during the SAC election. These are the voters.
- The faculties who set up and manage the election. These are the administrators.

4 Hardware Requirements

- A modern computing device (laptop/desktop computer, mobile, tablet etc.). A desktop computer is preferred for better user experience.
- The device should have a stable internet connection.

5 Software Requirements

The software requirements for hosting the application locally is given below.

- Unicorn 20.1.0 is the preferred web server to serve the application.
- PostgreSQL 14.0 or above is required as the relational database management system for the application.
- Python 3.8.5 or above is the requirement for the back-end to run the server and handle the requests from the client side.

More instructions to host the web application locally is mentioned in the README of the project.

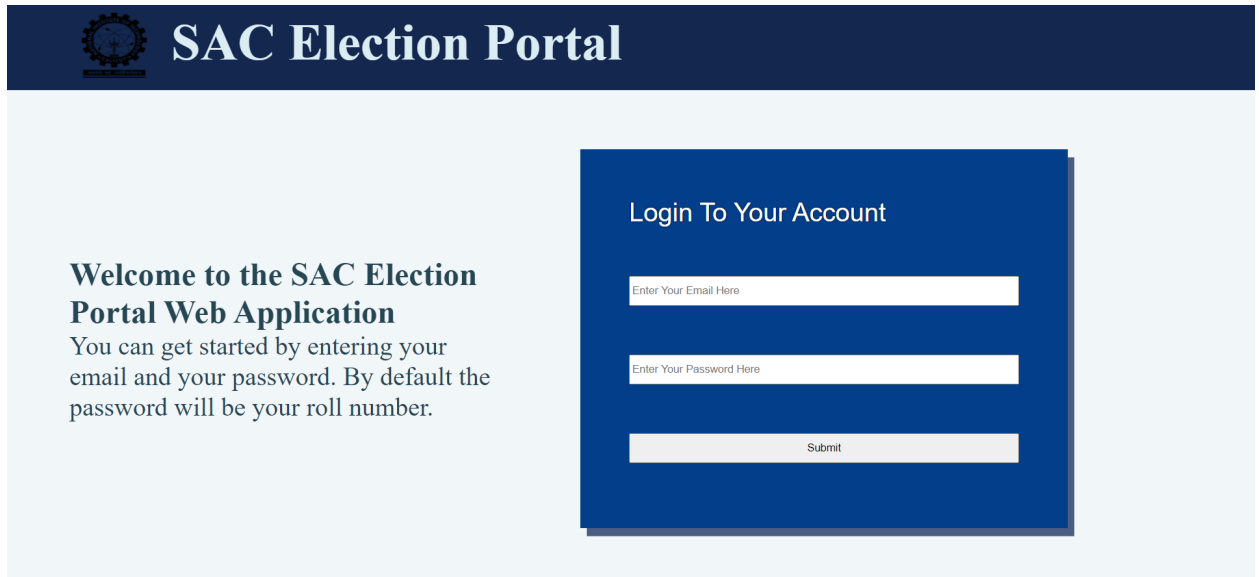
The software requirements to run the web application is as follows.

- The web application which is already hosted can be accessed through any modern browser, preferably anything newer than Mozilla Firefox 50.0, Google Chrome 51.0, Microsoft Edge 79.0, or Safari 11.1 .

6 User Interface

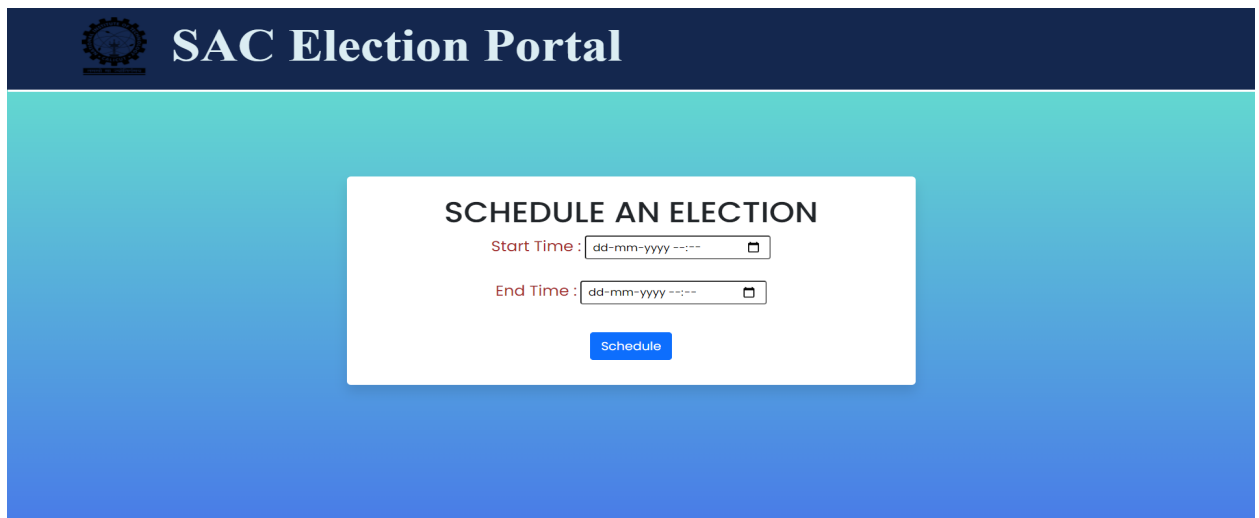
Administrator

- **LOGIN PAGE** - The login credentials of the admin are already present in the database. These credentials are provided beforehand to the admin and he/she can login using this.



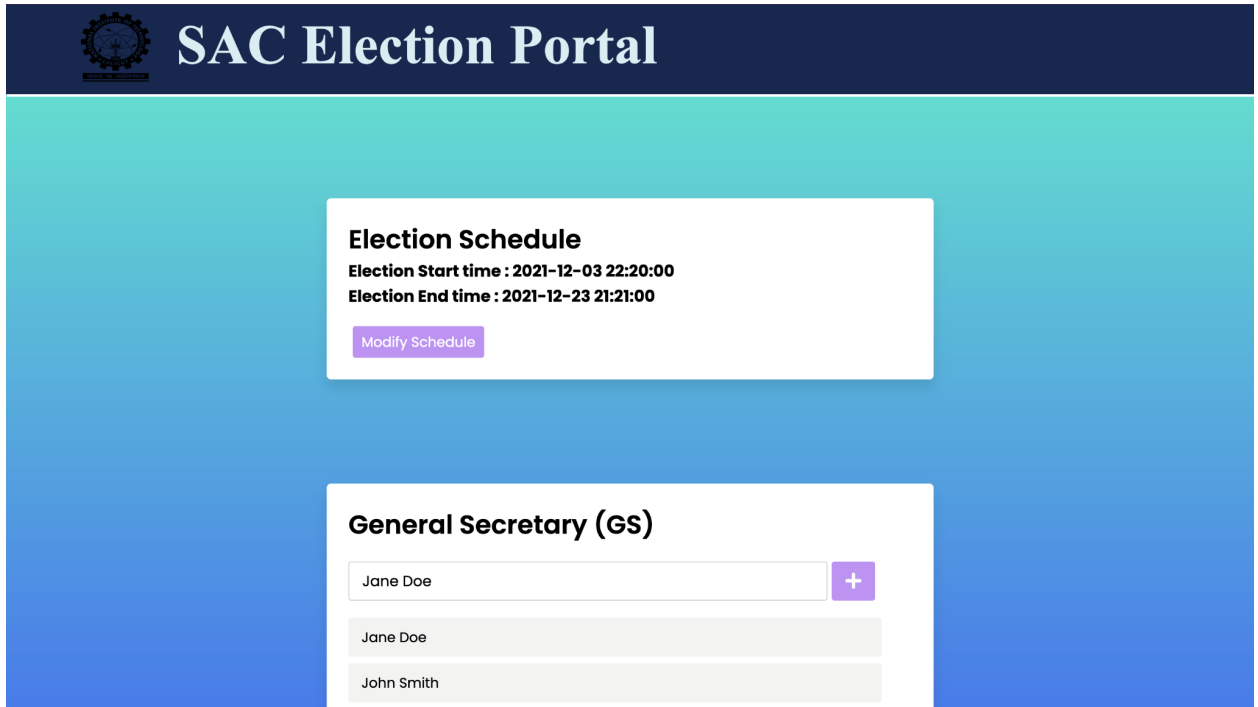
The screenshot shows the login interface of the SAC Election Portal. At the top, there is a dark blue header with a gear icon and the text "SAC Election Portal". Below the header, the main content area has a light blue background. On the left, a welcome message reads: "Welcome to the SAC Election Portal Web Application. You can get started by entering your email and your password. By default the password will be your roll number." On the right, there is a dark blue login box titled "Login To Your Account". Inside this box, there are two input fields: "Enter Your Email Here" and "Enter Your Password Here", followed by a "Submit" button.

- **SCHEDULE ELECTION PAGE** - This is the first step to setting up an election. Once the admin logs in he/she is asked to set a schedule for the election. The admin can choose a start datetime and end datetime and schedule the election.



The screenshot shows the "SCHEDULE AN ELECTION" page. It features a dark blue header with a gear icon and the text "SAC Election Portal". The main content area has a blue gradient background. In the center, there is a white box with the title "SCHEDULE AN ELECTION". Below the title, there are two input fields: "Start Time : dd-mm-yyyy --:--" and "End Time : dd-mm-yyyy --:--", each with a calendar icon to its right. At the bottom of the white box is a blue "Schedule" button.

- **SET ELECTION PAGE** - After setting a schedule for the election, the admin can add or delete candidates as well as modify the schedule of the election.



The screenshot displays the SAC Election Portal interface. At the top, there is a dark blue header with the portal's logo and name. Below the header, the main content area has a light blue background. A white card titled "Election Schedule" contains the election start and end times, along with a "Modify Schedule" button. Below this, another white card titled "General Secretary (GS)" features a search bar with "Jane Doe" and a "+" button, and a list of names: "Jane Doe" and "John Smith".

SAC Election Portal

Election Schedule

Election Start time : 2021-12-03 22:20:00
Election End time : 2021-12-23 21:21:00

[Modify Schedule](#)

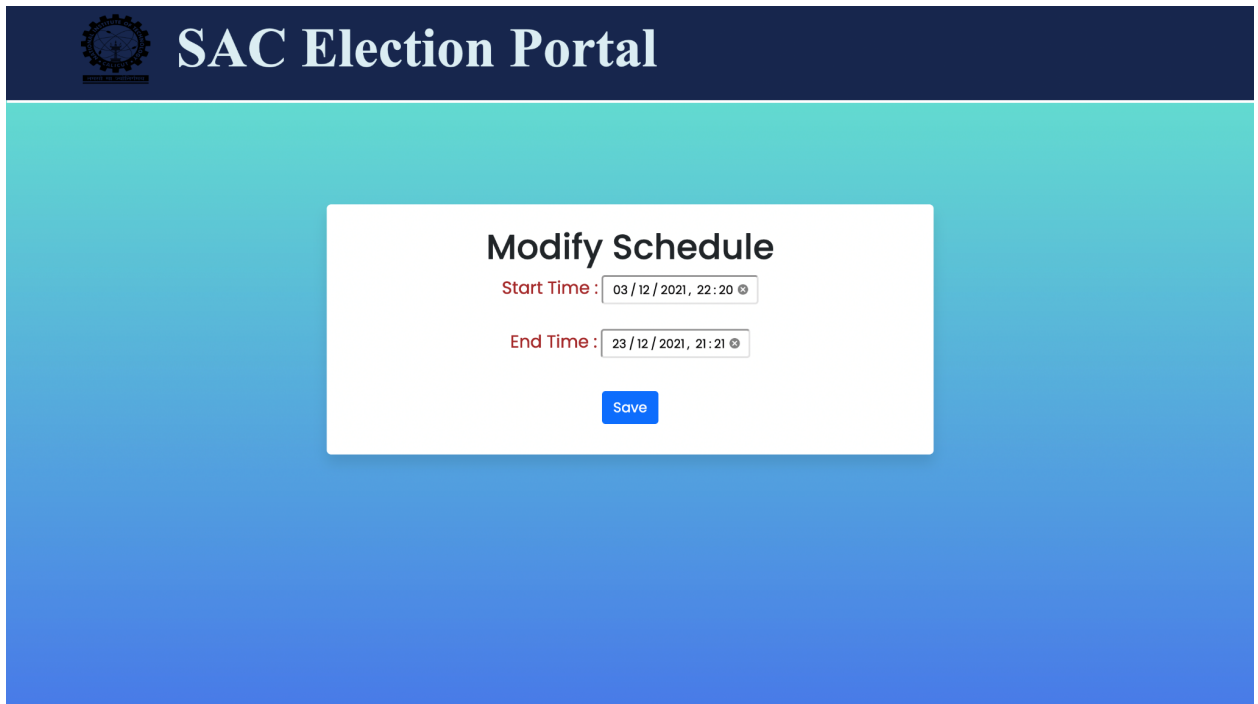
General Secretary (GS)

Jane Doe

Jane Doe

John Smith

The admin can modify the schedule of the election by clicking on the "Modify Schedule" button. He/she will be redirected to the modify election page and can set the new start datetime and/or end datetime and reschedule the election.



The screenshot displays the "Modify Schedule" page of the SAC Election Portal. It features a white card with a title, two datetime pickers for start and end times, and a "Save" button. The start time is set to 03/12/2021, 22:20 and the end time is set to 23/12/2021, 21:21.

SAC Election Portal

Modify Schedule

Start Time : 03 / 12 / 2021, 22:20

End Time : 23 / 12 / 2021, 21:21

[Save](#)

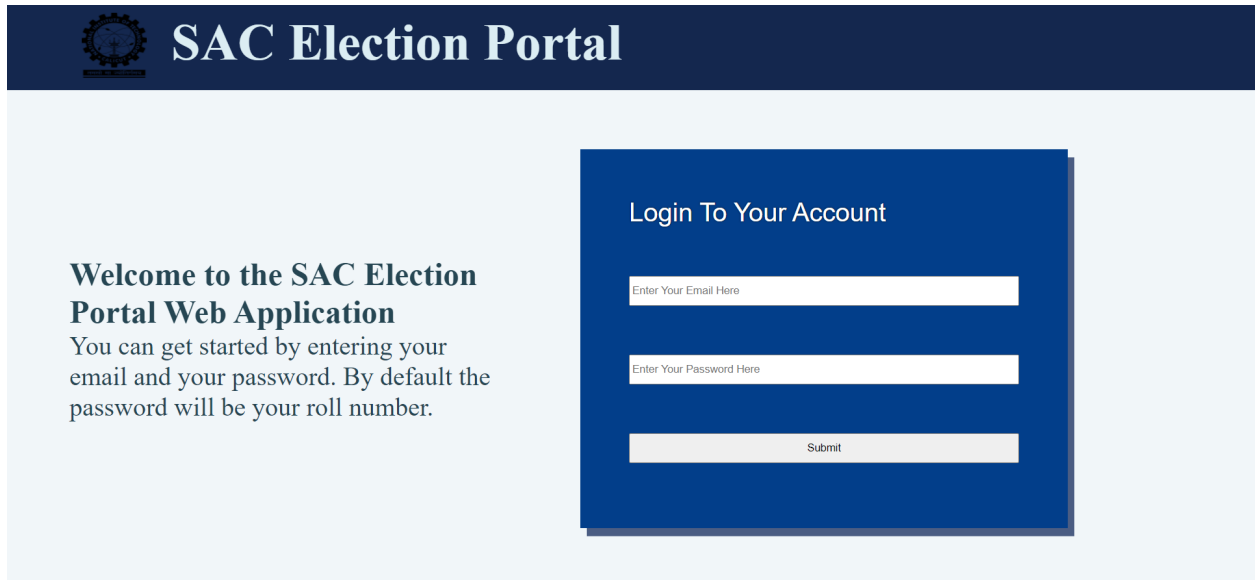
- The admin can add candidates for each position by entering the name of the candidate and clicking the "+" button. A modal will appear and the email id of the candidate has to be entered after which the candidate can be added. A candidate can also be deleted by clicking on the trash can icon which appears when we hover the mouse pointer over the candidate. The admin can clear all the candidates of a particular position by clicking the "Clear All" button.

The screenshot shows a web interface with a teal-to-blue gradient background. At the top, there is a white box titled "Election Schedule" containing the text "Election Start time : 2021-12-03 22:20:00" and "Election End time : 2021-12-23 21:21:00", with a purple "Modify Schedule" button below. Below this is another white box titled "General Secretary (GS)". It features a text input field with "Jane Doe" and a purple "+" button. Below the input is a list of candidates: "Jane Doe" with a red trash can icon to its right, and "John Smith". At the bottom of this box, it says "These are the candidates" and has a purple "Clear All" button.

This screenshot is similar to the previous one but includes a modal window. The "Election Schedule" box at the top shows "Election Start time : 2021-12-08 02:02:00" and "Election End time : 2021-12-23 02:09:00". The "General Secretary (GS)" box shows the "Jane Doe" candidate with the trash can icon. A modal window titled "Enter Details" is open in the center, containing a text input field with "Percy Jackson" and another with "seaweedbrain@nitc.ac.in", and a purple "Add Candidate" button. The "These are the candidates" text and "Clear All" button are visible at the bottom of the GS box.

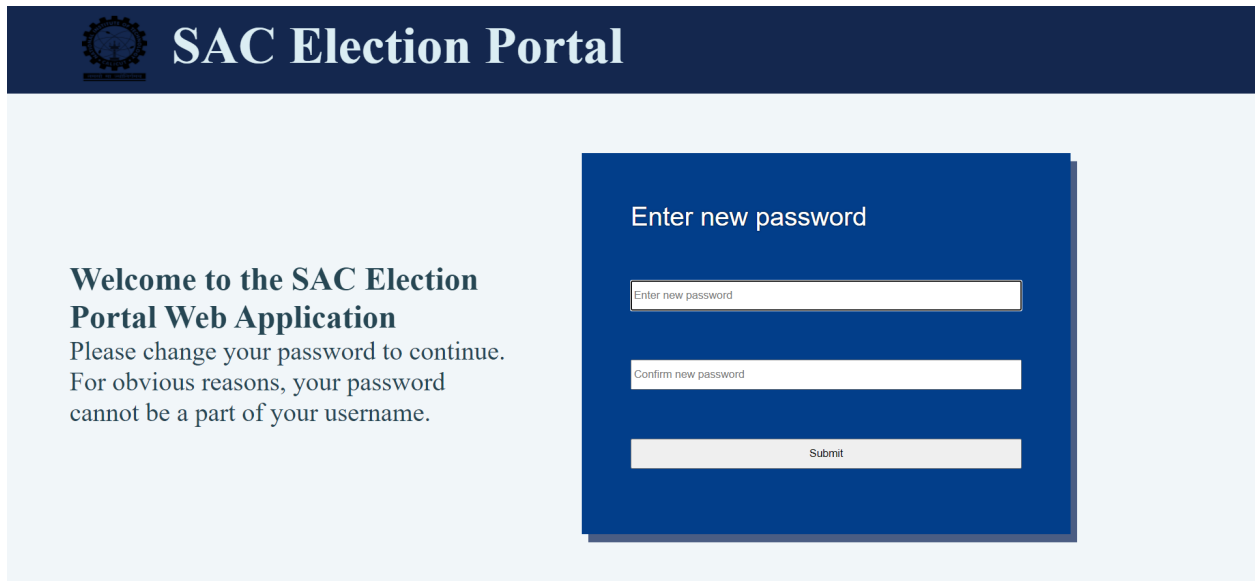
Voter

- **LOGIN PAGE** - The login credentials of the voter are already present in the database. The email ID here is the NITC email ID of the student and the default password is the student's roll number.



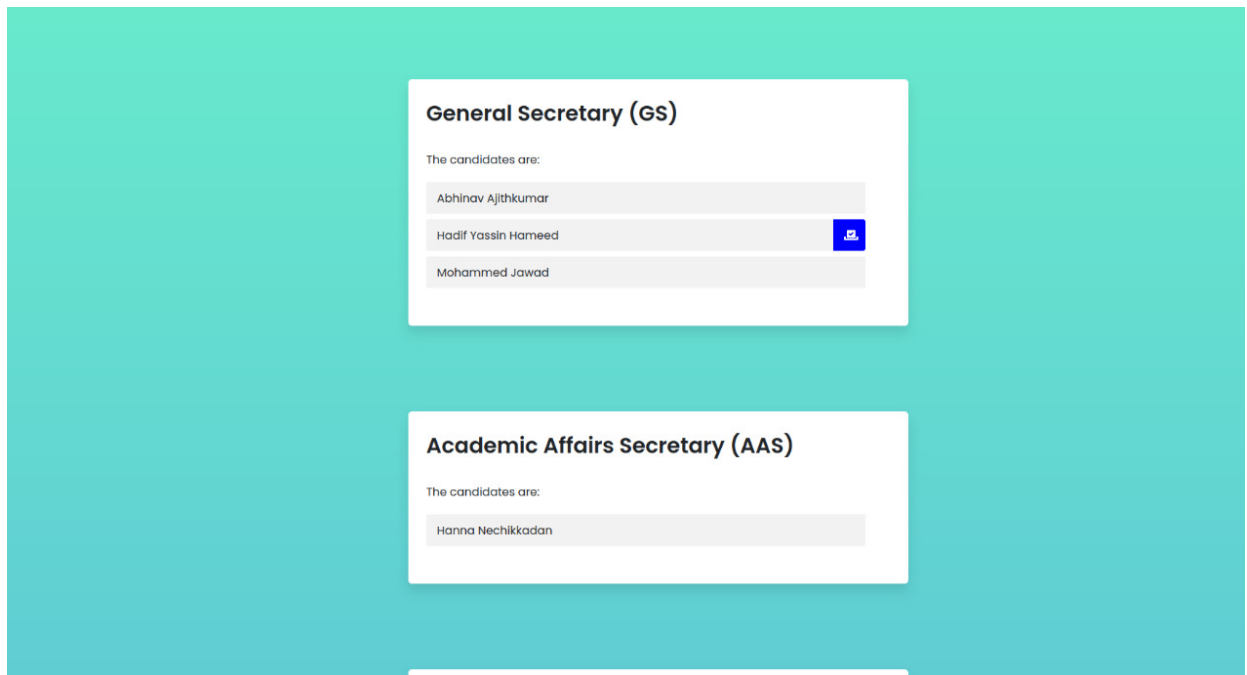
The screenshot shows the login interface of the SAC Election Portal. At the top, there is a dark blue header with the NITC logo on the left and the text "SAC Election Portal" in white. Below the header, the page has a light blue background. On the left side, there is a welcome message: "Welcome to the SAC Election Portal Web Application" followed by "You can get started by entering your email and your password. By default the password will be your roll number." On the right side, there is a dark blue login box with the title "Login To Your Account". Inside this box, there are two white input fields: "Enter Your Email Here" and "Enter Your Password Here". Below these fields is a white "Submit" button.

When the voter logs in for the first time he/she will be asked to set a new password.



The screenshot shows the new password setup interface of the SAC Election Portal. It has the same header as the login page. The welcome message on the left says: "Welcome to the SAC Election Portal Web Application" followed by "Please change your password to continue. For obvious reasons, your password cannot be a part of your username." On the right side, there is a dark blue box with the title "Enter new password". Inside this box, there are two white input fields: "Enter new password" and "Confirm new password". Below these fields is a white "Submit" button.

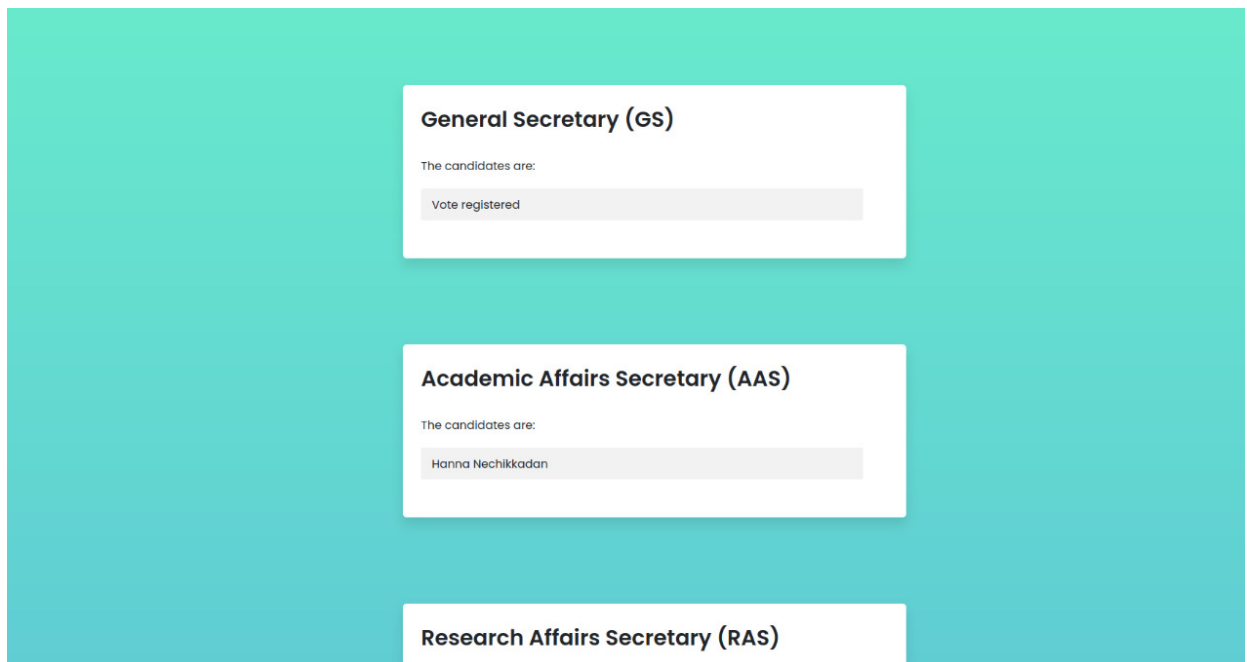
- **VOTING PAGE** - After the voter logs in he/she can view the candidates competing for various positions and vote for one candidate from each position. The voter can click on the check icon to register their vote for the desired candidate.



The screenshot displays the voting interface on a teal background. It features two white panels. The top panel is titled "General Secretary (GS)" and lists three candidates: Abhinav Ajithkumar, Hadif Yassin Hameed, and Mohammed Jawad. A blue checkmark icon is visible next to Hadif Yassin Hameed. The bottom panel is titled "Academic Affairs Secretary (AAS)" and lists one candidate: Hanna Nechikkadan.

Position	Candidate	Status
General Secretary (GS)	Abhinav Ajithkumar	Not Voted
	Hadif Yassin Hameed	Voted
	Mohammed Jawad	Not Voted
Academic Affairs Secretary (AAS)	Hanna Nechikkadan	Not Voted

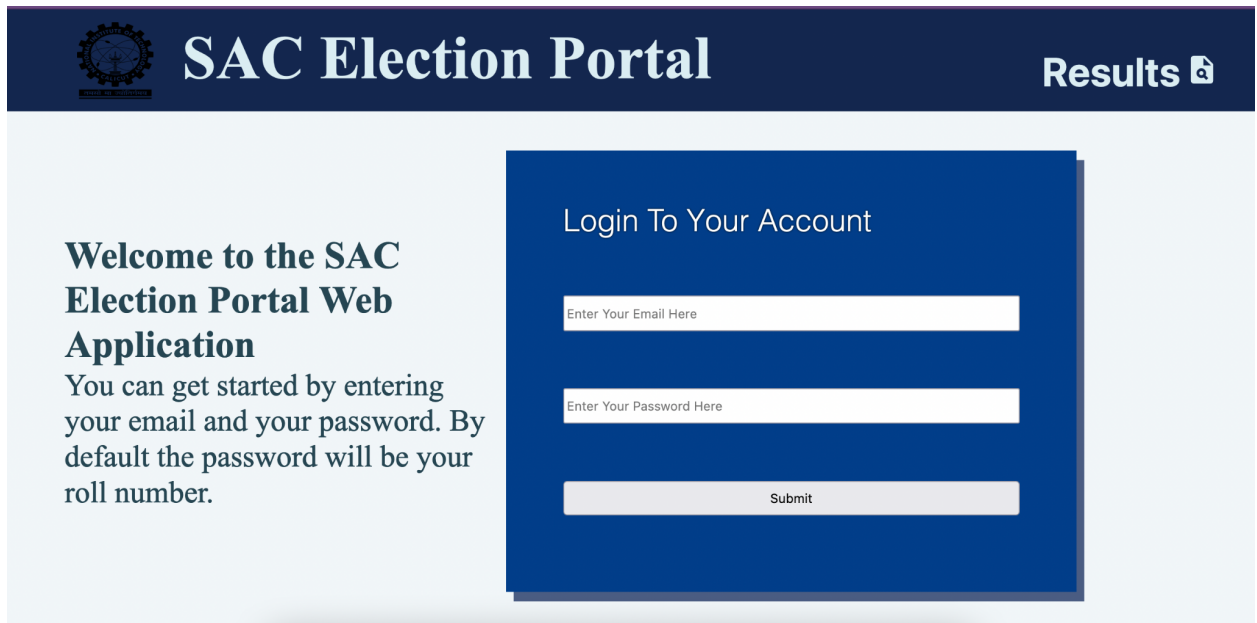
After registering their vote , the column will be updated and the voter can't cast their vote again.



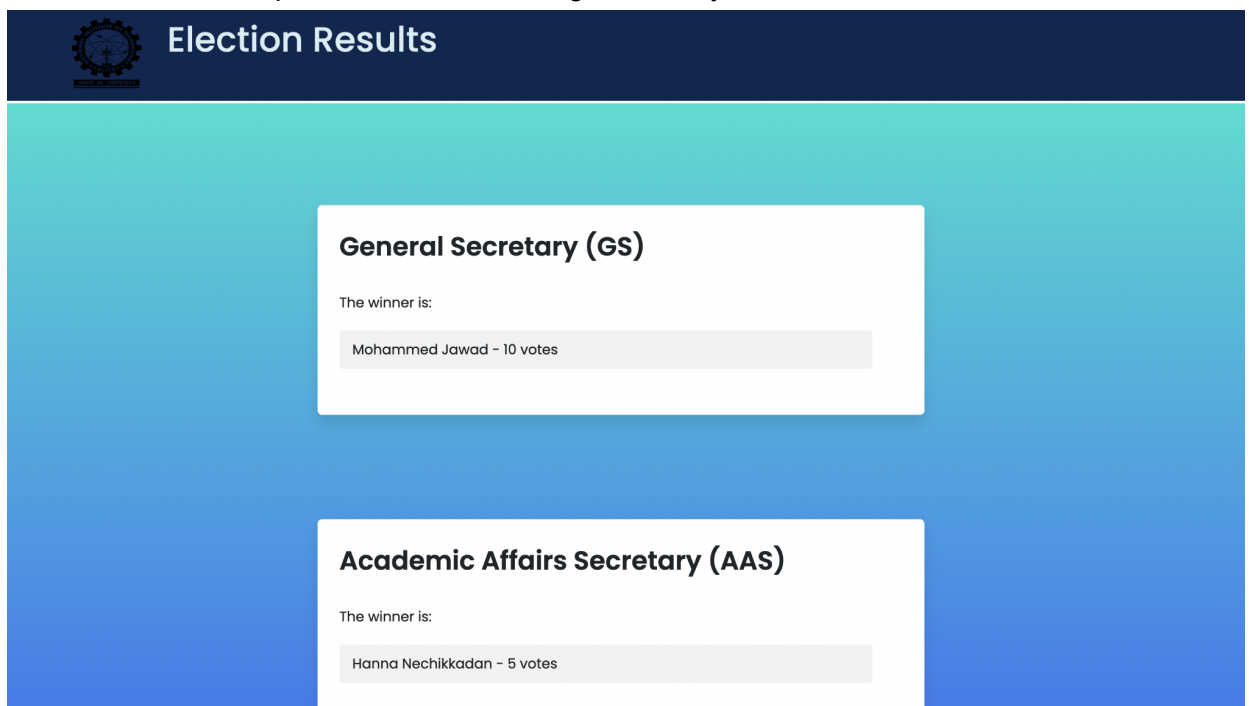
The screenshot shows the voting interface after a vote has been cast. The "General Secretary (GS)" panel now shows "Vote registered" instead of the candidate names. The "Academic Affairs Secretary (AAS)" panel remains unchanged, showing Hanna Nechikkadan. A new panel titled "Research Affairs Secretary (RAS)" is visible at the bottom.

Position	Status
General Secretary (GS)	Vote registered
Academic Affairs Secretary (AAS)	Hanna Nechikkadan
Research Affairs Secretary (RAS)	

- **RESULTS PAGE** - After the election is concluded a Results button will appear in the home page of the web application. The users can click on this button without logging in.



Upon clicking the button the user will be redirected to the results page and they will see the winners for each position and the votes garnered by the victor.



Thus the user will be able to take part fully in the election process with ease. And the administrator will be able to conduct the election without trouble in a fair manner.