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|  | **2011** |
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| **[iVOTE SOFTWARE rEQUIREMENTS sPECIFICATION]** |
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# Revision History

|  |  |  |
| --- | --- | --- |
| Date | Action | Editor |
| 9/22/2011 | Created initial SRS. | Kenneth Rohlfing, James Fody. |
| 9/28/2011 | Superficial modifications to the document itself,  added 8 additional functional requirements. | Kenneth Rohlfing, James Fody. |
| 9/30/2011 | Added F.R 6, F.R.12, F.R.13, F.R.14, F.R.15 | Kenneth Rohlfing, James Fody. |
| 10/15/2011 | Added F.R.17,F.R.18,F.R.20,F.R.24, F.R.26 | Kenneth Rohlfing, James Fody. |
| 10/19/2011 | Modified and Updated SRS to reflect previous changes. Removed President role, moved revision history, updated references, updated nonfunctional requirement. | Kenneth Rohlfing, James Fody. |
| 11/06/2011 | Removed all remaining references to president and  corrected a few misspellings | Kenneth Rohlfing, James Fody. |
| 11/11/2011 | Completed remaining Functional Requirements | Kenneth Rohlfing, James Fody. |
| 12/08/2011 | Reviewed SRS for completeness and accuracy | Kenneth Rohlfing, James Fody. |

# Introduction

## Product Perspective

The client has requested a web-based voting system with database support for APSCUF-KU elections to replace its current system. The web-based voting system’s intended purpose is to create a paperless voting system that will save time and reduce the workload of APSCUF-KU members while increasing security and anonymity of the voting process.

## Purpose

This document is a specification sheet that will describe in detail the requirements of the iVOTE system. Herein the reader shall find the purpose and functionality of the iVOTE system, the interaction constraints of the systems interfaces, description of components, features and design.

## Scope of Project

The iVOTE system will consist of a website and database to provide the following functionality.

The iVOTE system website will utilize web forms to create willingness-to-serve forms, nomination forms, and petitions which can be filled out by eligible APSCUF-KU members and electronically submitted. Static forms used for information purposes such as nomination and election procedures, duties of the office up for election, and any other related forms shall be posted online and made available through the iVOTE website. This shall ensure consistent distribution and access to forms as well as a central location from which forms are received and updated.

## Definitions, acronyms, and abbreviations

|  |  |
| --- | --- |
| Term | Definition |
| ADA | Americans with Disabilities Act |
| APSCUF-KU | Association of Pennsylvania State College and University Faculty at Kutztown University |
| IIS | Internet Information Server |
| NEC | Nominations Elections Committee |
| OS | Operating System |
| SRS | Software Requirements Specification |

## 

## References

The following documents may be referenced by this document:

* Procedures of the APSCUF-KU Nominations and Elections Committee
* Karen Epting Interview notes prepared by James Fody, Jeremy Nagy, and Kenneth Rohlfing.
* Meeting minutes reports:
  + September 7
  + September 14
  + September 21
  + September 29
  + October 5
  + October 12
  + October 19
  + October 29
  + November 2
  + November 9
  + November 16
  + November 21
  + November 30
  + December 7

# Project Description

This section will give the reader an overview of the project functionality, technical aspects, users and user interactions of the system.

## Users

Primary users of the system will be:

* Administrator
* Faculty
* Nominations and Elections Committee

Administrative level of access shall include indirect access to the database via web forms.

Administrative privileges shall include but not limited to:

* Adding and removing users.
* Editing users.
* Validating candidate eligibility.
* Creating elections.
* Granting and revoking of privileges to the iVOTE system.
  + Updating and backing up database.
  + All Faculty privileges inclusive herein.

The Faculty level of access shall be limited to creating a password, willingness-to-serve forms, nominations forms, petitioning, and voting in elections

The Nominations and Elections Committee shall have all rights and privileges granted to Faculty. Additionally they shall be granted permissions to approve nominations and review and approve the results of the election stored in the database.

General user overview: Users’ computer skills will range from computer illiterate to

computer savvy, therefore the system shall accommodate the weakest computer skill level. This will be accomplished by:

* Creating a website with ease of use and limited user navigation.
* Web Forms will duplicate the purposes served by their paper counterparts and be easy to use, fill out and submit.
* Web Forms that will be original to the iVOTE system will be easy to navigate, have tooltips and a help button as a failsafe option.

## 

## System Overview

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**Figure 1 – System Environment**

The iVOTE System has 3 active actors and an interactive system. All parties can interact with the online voting system but only one actor group may interact directly with the database itself.

## Overview of Functional Requirements

The functional requirements of the iVOTE system are listed below and possible interactions between groups of users and the iVOTE system and its database will be described in the detailed use-case scenarios included herein.

### **List of functional requirements**

|  |  |  |  |
| --- | --- | --- | --- |
| Functional  Requirement | Phase | Requirement | Priority Level |
| F.R.1 | 1B | The system will allow for the login of Faculty. | Must Have |
| F.R.2 | 1B | The system will allow for the logout of Faculty. | Must Have |
| F.R.3 | 2S2 | The system will allow users to search. | Nice to Have |
| F.R.4 | 2S2 | The system will generate a report of the election results. | Must Have |
| F.R.5 | 2S2 | The system will send e-mail to Administrator regarding completion of election. | Must Have |
| F.R.6 | 2S2 | The Administrator shall be able to cancel an election. | Must Have |
| F.R.7 | 1B | The Administrator shall be able to create users. | Must Have |
| F.R.8 | 1B | The Administrator shall be able to edit users. | Must Have |
| F.R.9 | 1B | The Administrator shall be able to delete users. | Good to Have |
| F.R.10 | 1B | The Administrator shall be able to create a password. | Must Have |
| F.R.11 | 2S2 | The Administrator shall be able to view election history. | Nice to Have |
| F.R.12 | 2S1 | The Administrator shall be able to approve eligibility. | Must Have |
| F.R.13 | 2S1 | The Administrator shall be able to fill out willingness to serve. | Must Have |
| F.R.14 | 2S1 | The Administrator shall be able to change their password. | Must Have |
| F.R.15 | 2S1 | The Administrator shall be able to recover their password. | Must Have |
| F.R.16 | 2S2 | The Administrator shall be able to vote in an election. | Must Have |
| F.R.17 | 2S1 | The Administrator shall be able to view each nomination. | Must Have |
| F.R.18 | 2S1 | The Administrator shall be able to view a listing of nominees. | Must Have |
| F.R.19 | 2S2 | The Administrator shall be able to sort users | Must Have |
| F.R.20 | 2S2 | The Administrator shall be able to create an election. | Must Have |
| F.R.21 | 2S2 | The NEC members shall be able to view election results. | Must Have |
| F.R.22 | 2S1 | The NEC members shall be able to approve nominations. | Must Have |
| F.R.23 | 2S2 | The NEC members shall be able to approve votes. | Must Have |
| F.R.24 | 2S1 | The NEC members shall be able to fill out willingness to serve forms. | Must Have |
| F.R.25 | 2S1 | The NEC members shall be able to place nominations. | Must Have |
| F.R.26 | 2S2 | The NEC members shall be able to sign-off on election results. |  |
| F.R.27 | 2S1 | The NEC members shall be able to petition a nomination. | Must Have |
| F.R.28 | 1B | The NEC members shall be able to create a password. | Must Have |
| F.R.29 | 2S1 | The NEC members shall be able to change their password. | Must Have |
| F.R.30 | 2S1 | The NEC members shall be able to recover their password. | Must Have |
| F.R.31 | 2S2 | The NEC members shall be able to vote in elections. | Must Have |
| F.R.32 | 1B | The faculty shall be able to create a password. | Must Have |
| F.R.33 | 2S1 | The faculty shall be able to change their password. | Must Have |
| F.R.34 | 2S1 | The faculty shall be able to recover their password. | Must Have |
| F.R.35 | 2S1 | The faculty shall be able to place a nomination. | Must Have |
| F.R.36 | 2S1 | The faculty shall be able to fill out a willingness to serve form. | Must Have |
| F.R.37 | 2S1 | The faculty shall be able to petition a nomination. | Must Have |
| F.R.38 |  | The faculty shall be able to vote in an election. | Must Have |
| F.R.39 | 2S1 | The faculty shall be able to submit willingness-to-serve forms. | Must Have |
| F.R.40 | 2S2 | The faculty shall be able to view all eligible candidates’ and their statements. | Must Have |

## Overview of Non-Functional Requirements

The non-functional requirements of the iVOTE system are listed below.

### **List of Non-Functional Requirements**

|  |  |
| --- | --- |
| Requirement | Type |
| The system must be ADA compliant. | Accessibility |
| The system shall provide voters with anonymity by not storing who they voted for. | Privacy |
| The system must be available 23.5 hours a day, 7 days a week during an election period. | Availability |
| The system response time shall be less than four seconds. | Efficiency |

### F.R.1: [ALL] Login Use Case

|  |  |
| --- | --- |
| Use Case Name: | [ALL]Log in |
| Scenario: | User logs into the system. |
| Triggering Event: | The user opens the system in a web browser, and navigates to the login form. |
| Brief Description: | The user must enter their full email address as their user name, and must enter the password to their account. Finally, the user must submit the form. |
| Actors: | Administrator, NEC Member, Faculty |
| Related Use Cases: | None. |
| Stakeholders: | Administrator |
| Preconditions: | User must be created in the database.  User must have created a password.  Given password must match the password in the database. |
| Postconditions: | User will gain access to the system and functionality based on their role. |
| Flow of Activities: | |  |  | | --- | --- | | Actor | System | | 1. User enters email address and password, and then submits form. | 1.1 Database is searched for user email.  1.2 If found, database record for the user is retrieved.  1.3 Password from database record is compared to the supplied password from the user.  1.4 If passwords match, session is created. | |
| Exception Conditions: | * 1. If the user email is not on record or the passwords do not match, the user is prompted to try again or contact an administrator if they feel there is an issue. |

### F.R.2: [ALL] Logout Use Case

|  |  |
| --- | --- |
| Use Case Name: | [ALL] Log out |
| Scenario: | User logs out of the system. |
| Triggering Event: | The user closes out of the system or session times out. |
| Brief Description: | The users will click the logout button or be inactive for 15 minutes. |
| Actors: | Administrator, NEC Member, Faculty |
| Related Use Cases: | None. |
| Stakeholders: | Administrator |
| Preconditions: | User must have logged in to the system. |
| Postconditions: | System will destroy the session. |
| Flow of Activities: | |  |  | | --- | --- | | Actor | System | | 1.User clicks logout button  2. User is inactive for fifteen minutes. | 1.1 Session is destroyed.  2.1 Session is destroyed. | |
| Exception Conditions: |  |

### F.R.3: [ALL] Search Use Case

|  |  |
| --- | --- |
| Use Case Name: | [ALL] User Search |
| Scenario: | A user will search the database for another user. |
| Triggering Event: | A user will need to create or sign a petition. |
| Brief Description: | The method to create or sign another members petition is to search  the database for that person. |
| Actors: | Administrator, NEC Member, Faculty |
| Related Use Cases: | None |
| Stakeholders: | Administrator, NEC Member, Faculty |
| Preconditions: | The user doing the search is logged in.  The user being searched for exists in the database.  The current phase is either the nominate phase or the petition phase. |
| Postconditions: | The user being searched for will be found and information based on the  phase relating to the found user will be displayed. |
| Flow of Activities: | |  |  | | --- | --- | | Actor | System | | 1.User navigates to the  ‘Petition page’.  2. User enters the name to be searched.  3. User clicks search button. | 3.1 A connection made to the database.  3.2 The database is searched for the requested  user.  3.3 If found, the results are displayed to the user and connection is terminated. | |
| Exception Conditions: | 1.If the user does not exist in the database, the user receives a message  ‘data for member not found’ and user can contact the administrator  if they feel there is an error. |

### **F.R.4: [SYSTEM] Election Results Use Case**

|  |  |
| --- | --- |
| Use Case Name: | [SYSTEM] Election Results |
| Scenario: | During the voting phase the system will tally votes and generate the results of the election upon completion |
| Triggering Event: | The vote phase has ended and the NEC has approved all votes. |
| Brief Description: | During the voting phase the system will tally votes and generate the results of the election upon completion |
| Actors: | System |
| Related Use Cases: | None |
| Stakeholders: | Administrator, NEC Member, Faculty |
| Preconditions: | The vote phase has concluded.  The NEC has approved all votes  The votes have been tallied  NEC member is logged in. |
| Postconditions: | A report of the election results has been generated |
| Flow of Activities: | |  |  | | --- | --- | | Actor | System | | 1. NEC member clicks show results button. | 1.1 A connection made to the database.  1.2 The database is searched for the requested  information  1.3 If found, the results are displayed to the user and connection is terminated. | |
| Exception Conditions: |  |

### **F.R.5: [SYSTEM] Election Complete Use Case**

|  |  |
| --- | --- |
| Use Case Name: | **[SYSTEM]** Election Complete |
| Scenario: | The automated election will send an email informing the administrator  of its’ completion |
| Triggering Event: | Initialization of the system past the completion of the election will trigger  an email alert to the administrator |
| Brief Description: | Initialization of the system past the completion of the election will trigger  an email alert to the administrator |
| Actors: | System |
| Related Use Cases: | None |
| Stakeholders: | Administrator |
| Preconditions: | The administrator will have created an election.  Time will exceed the predetermined length of the election |
| Postconditions: | The administrator will receive an email alert regarding the completion of the election. |
| Flow of Activities: | |  |  | | --- | --- | | Actor | System | | 1. A user will login to the system. | 1.1 The system will be initialized.  1.2 The system will check current state.  1.3 The system will compare start date of the  election and the current date and determine the  election has ended.  1.4 The system will generate an email and send to the administrator. | |
| Exception Conditions: |  |

### **F.R.6:** [ADMIN] **Cancel Election Use Case**

|  |  |
| --- | --- |
| Use Case Name: | [ADMIN] Cancel Election |
| Scenario: | Administrator shall have the ability to cancel the election. |
| Triggering Event: | Unknown circumstances will create a situation in which the administrator  will have to cancel the election. |
| Brief Description: | In the event the administrator has to cancel an election, the administrator has a  button to click will terminate the election |
| Actors: | Administrator |
| Related Use Cases: | None |
| Stakeholders: | Administrator, NEC Member, Faculty |
| Preconditions: | The administrator is logged in to the system.  The administrator is on their home page |
| Postconditions: | The election process will terminate |
| Flow of Activities: | |  |  | | --- | --- | | Actor | System | | 1. The administrator clicks to ‘cancel election’ button | * 1. A connection is made to the database.   2. The election dates and time set by the administrator are returned to a NULL state. | |
| Exception Conditions: |  |

### F.R.7: [ADMIN] Create User Use Case

|  |  |
| --- | --- |
| Use Case Name: | [ADMIN] Create User |
| Scenario: | Administrator creates new user. |
| Triggering Event: | Administrator receives new APSCUF-KU employee information. |
| Brief Description: | Administrator fills out web form to create a new user account. |
| Actors: | Administrator |
| Related Use Cases: | None. |
| Stakeholders: | Administrator, NEC Member, Faculty |
| Preconditions: | Faculty becomes APSCUF-KU member.  Administrator receives new user information. |
| Postconditions: | A new user account will be added to the system.  Password creation link will be sent to user. |
| Flow of Activities: | |  |  | | --- | --- | | Actor | System | | 1. Administrator logs in to the system.  2. Administrator navigates to the create user form.  3. Administrator fills out form.  4. Administrator submits form. | 1.1 Administrative privileges are granted  2.1Create user form is displayed and active.  4.1 Page validation is performed.  4.2 If page validates system opens connection to database, populates fields, and creates record.  4.3 System sends password creation link to new user. | |
| Exception Conditions: | * 1. If the Administrator has not received new hire information, Administrator or new hire can contact personnel directly. |

### **F.R.8:** [ADMIN] **Edit User Use Case**

|  |  |
| --- | --- |
| Use Case Name: | [ADMIN] Edit User |
| Scenario: | Administrator edits existing user. |
| Triggering Event: | Administrator receives new APSCUF-KU employee information. |
| Brief Description: | Administrator updates data in a specific users Account Information form |
| Actors: | Administrator |
| Related Use Cases: | None. |
| Stakeholders: | Administrator, NEC Member, Faculty |
| Preconditions: | The member to be edited exists in the database.  Administrator receives new user information. |
| Postconditions: | The members’ account information will be updated in the database. |
| Flow of Activities: | |  |  | | --- | --- | | Actor | System | | 1. Administrator logs in to the system.  2. Administrator navigates to the All Users list  3. Administrator clicks  Edit for the appropriate user  4. Administrator edits the users’ information.  5. User verifies updated information is correct. | 1.1 Administrative privileges are granted  2.1 All Users’ list is displayed  3.1 Members’ account information is displayed.  4.1 Page validation is performed.  4.2 If page validates system opens connection to database, repopulates fields with new data.  4.3 System sends user e-mail with updated information and is asked to verify new information is correct. | |
| Exception Conditions: |  |

### **F.R.9:** [ADMIN] **Delete User Use Case**

|  |  |
| --- | --- |
| Use Case Name: | [ADMIN] Delete User |
| Scenario: | Administrator deletes existing user. |
| Triggering Event: | Administrator receives information that an existing user is no longer  an APSCUF-KU member |
| Brief Description: | Administrator deletes an existing user from the database |
| Actors: | Administrator |
| Related Use Cases: | None. |
| Stakeholders: | Administrator, NEC Member, Faculty |
| Preconditions: | The member to be deleted exists in the database.  Administrator receives information that a user is no longer a member  of APSCUF-KU |
| Postconditions: | The members’ account information will be deleted from the database. |
| Flow of Activities: | |  |  | | --- | --- | | Actor | System | | 1. Administrator logs in to the system.  2. Administrator navigates to the All Users list  3. Administrator clicks  Delete for the appropriate user.  4. Administrator clicks yes confirming the deletion | 1.1 Administrative privileges are granted  2.1 All Users’ list is displayed  3.1 A warning pops-up asking “Are you sure you want to delete selected user?”  4.1 Page validation is performed.  4.2 If page validates system opens connection to database and deletes the existing user and all account information from the database. | |
| Exception Conditions: |  |

### **F.R.10: [ALL] Create Password Use Case**

|  |  |
| --- | --- |
| Use Case Name: | [ALL] Create Password |
| Scenario: | User creates password. |
| Triggering Event: | A user follows create password link from e-mail. |
| Brief Description: | A new user will create a password in order to log in to the system. |
| Actors: | Administrator, NEC Member, Faculty |
| Related Use Cases: | F.R.27, F.R.31 |
| Stakeholders: | Administrator, NEC Member, Faculty |
| Preconditions: | A use must receive password creation e-mail. |
| Postconditions: | User password is set.  User is able to log in to system. |
| Flow of Activities: | |  |  | | --- | --- | | Actor | System | | 1. User clicks link from e-mail.  2. User enters desired password and confirms password.  3. User submits form. | 1.1 System in response will load the form.  3.1 System validates that passwords match.  3.2 System opens connection to database.  3.3 System updates account.  3.4 System closes connection to database.  3.5 System displays confirmation. | |
| Exception Conditions: | * 1. If the user passwords do not match, user is prompted to re-enter passwords. |

### **F.R.11:** [ADMIN] **Election History Use Case**

|  |  |
| --- | --- |
| Use Case Name: | [ADMIN] Election History |
| Scenario: | The administrator will need to check past election results. |
| Triggering Event: | The administrator will need to check past election results. |
| Brief Description: | Election results from past elections will be stored in the database and  will be available to the administrator. |
| Actors: | Administrator |
| Related Use Cases: | None |
| Stakeholders: | Administrator |
| Preconditions: | The administrator is logged in.  The administrator has navigated to the ‘Election History’ page. |
| Postconditions: | The selected history results are displayed. |
| Flow of Activities: | |  |  | | --- | --- | | Actor | System | | 1.The administrator will enter the year of the election in question  2. The administrator clicks ‘view’ button. | 2.1 A connection made to the database.  2.2 The database is searched for the requested  information.  2.3 If found, the results are displayed to the user and connection is terminated. | |
| Exception Conditions: | 1. The election history page should have information regarding how far back the election results go. (Ex. Election result from Fall 2002 to present)  2. Error Message will be displayed if administrator requests results beyond the range of the saved election results. |

### F.R.12: [ADMIN] Approve Eligibility Use Case

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| --- | --- |
| Use Case Name: | [ADMIN] Approve Eligibility |
| Scenario: | Administrator approves the eligibility of potential candidates |
| Triggering Event: | APSCUF-KU employee accepts a nomination. |
| Brief Description: | APSCUF-KU employee accepts a nomination and the administrator approves their eligibility. |
| Actors: | Administrator |
| Related Use Cases: | F.R.17(View Each Nomination) |
| Stakeholders: | Administrator, NEC Member, Faculty |
| Preconditions: | APSCUF-KU employee accepts a nomination and clicks ‘submit’  Administrator receives the candidates’ willingness to serve form. |
| Postconditions: | The APSCUF-KU employee’s eligibility is decided. |
| Flow of Activities: | |  |  | | --- | --- | | Actor | System | | 1. Administrator logs in to the system.  2. Administrator receives an alert regarding a new candidate.  3. Administrator clicks  ‘Verify Eligibility’ in the Alert window.  4. Administrator checks ‘Eligible’ or Ineligible’ next to candidates name and clicks submit. | 1.1 Administrative privileges are granted  2.1 Alert is displayed.  3.1 Page validation is performed. If page validates, system opens connection to database and queries database for nomination names and positions. List of eligible and pending nominees is displayed.  4.1 Eligibility data is entered into the database.  4.2 System sends user e-mail with their eligibility status | |
| Exception Conditions: |  |

### F.R.13: [ALL] Fill Out WTS Use Case

|  |  |
| --- | --- |
| Use Case Name: | [ALL] Fill Out Willingness-to-Serve |
| Scenario: | User receives willingness to serve form |
| Triggering Event: | Election process begins and a user receives willingness to serve form. |
| Brief Description: | Election process begins and a user receives willingness to serve form and  fills it out. |
| Actors: | Administrator, NEC Member, Faculty |
| Related Use Cases: | F.R.23, F.R.38 |
| Stakeholders: | Administrator, NEC Member, Faculty |
| Preconditions: | The Election process has been executed.  The member must exist in the database.  The user must be logged in.  The user navigates to the ‘Willingness-to-Serve’ form. |
| Postconditions: | The member will have filled out their ‘Willingness-to-Serve’ form,  submitted it and have it entered into the database. |
| Flow of Activities: | |  |  | | --- | --- | | Actor | System | | 1. User fills out all required fields on the  ‘Willingness-to-Serve’ form. and clicks ‘Submit’.  2. User receives the e-mail confirmation sent by system. | 1.1 Page validation is performed.  1.2 If page validates system opens connection to database, and enters the information filled out on the ‘Willingness-to-Serve’ form into the database.   * 1. An alert is sent to the Administrator.   2. An e-mail is sent to the user informing   them that their information has been received | |
| Exception Conditions: |  |

### F.R.14: [ALL] Change Password Use Case

|  |  |
| --- | --- |
| Use Case Name: | [ALL] Change Password |
| Scenario: | User changes their password. |
| Triggering Event: | User desires new password. |
| Brief Description: | A user will be able to change their password. |
| Actors: | Administrator, NEC Member, Faculty |
| Related Use Cases: | F.R.28,F.R.32 |
| Stakeholders: | Administrator, NEC Member, Faculty |
| Preconditions: | The member must exist in the database  The member must be logged in. |
| Postconditions: | The members’ new password will be updated in the database. |
| Flow of Activities: | |  |  | | --- | --- | | Actor | System | | 1. User logs in to the system.  2. User navigates to ‘Account Information’  page  3. User clicks ‘Change Password’ button.  4. User clicks ‘Submit’ to commit changes.  5. User verifies updated information is correct. | 1.1 Appropriate privileges are granted  2.1 The users’ information is displayed.  3.1 User is prompted to enter new password then prompted to confirm new password.  4.1 Page validation is performed.  4.2 If page validates system opens connection to database, repopulates password field with new password.  4.3 System sends user e-mail with updated information and is asked to verify new information is correct. | |
| Exception Conditions: |  |

### F.R.15: [ALL] Recover Password Use Case

|  |  |
| --- | --- |
| Use Case Name: | [ALL] Recover Password |
| Scenario: | User forgets their password. |
| Triggering Event: | User forgets their password. |
| Brief Description: | A user forgets their password and requests password recovery of system. |
| Actors: | Administrator, NEC Member, Faculty |
| Related Use Cases: | F.R.29, F.R.33 |
| Stakeholders: | Administrator, NEC Member, Faculty |
| Preconditions: | The member must exist in the database.  The user will have navigated to the Login page. |
| Postconditions: | The member will receive their password via e-mail. |
| Flow of Activities: | |  |  | | --- | --- | | Actor | System | | 1. User clicks ‘Forget Password’ link  2. User enters their e-mail address and clicks ‘Submit’  3. User receives e-mail with their forgotten password. | 1.1 The ‘Forgot Password’ page is displayed.  2.1 Page validation is performed.  2.2 If page validates system opens connection to database, and queries the database for users’ password.  2.3 Password is e-mailed to user. | |
| Exception Conditions: |  |

### F.R.16: [ALL] Vote Use Case

|  |  |
| --- | --- |
| Use Case Name: | [ALL] Vote |
| Scenario: | The election process has entered the final phase and APSCUF-KU member can now vote. |
| Triggering Event: | The administrator has changed the phase to the vote phase. |
| Brief Description: | The members now have voting functionality and can vote on the slate of candidates |
| Actors: | Administrator, NEC Member, Faculty |
| Related Use Cases: | F.R.30, F.R.37 |
| Stakeholders: | Administrator, NEC Member, Faculty |
| Preconditions: | The administrator has changed the phase to the vote phase.  A user has logged in and navigated to the ‘slate’ page. |
| Postconditions: | The users’ votes have been entered into the database. |
| Flow of Activities: | |  |  | | --- | --- | | Actor | System | | 1. User clicks on an office up for election.  2. User clicks on name of candidate.  3. User clicks vote. | 3.1 A connection made to the database.  3.2 The vote information is inserted into the database.  3.3 System generates a message informing the user that the information has been received.  3.4 Connection is terminated | |
| Exception Conditions: | 1. User must vote the entire ballot in order for the votes to be submitted. |

### F.R.17: [ADMIN] View Nominations Use Case

|  |  |
| --- | --- |
| Use Case Name: | [ADMIN] View Nominations |
| Scenario: | Administrator shall be able to view individual nominations. |
| Triggering Event: | APSCUF-KU employee accepts a nomination. |
| Brief Description: | A list is created of APSCUF-KU employees’ that accept a nominations and the administrator can view each individual nomination. |
| Actors: | Administrator |
| Related Use Cases: | F.R.12(Approve Eligibility) F.R.18(View List of Nominations) |
| Stakeholders: | Administrator, NEC Member, Faculty |
| Preconditions: | APSCUF-KU employee accepts a nomination and clicks ‘submit’  Administrator has navigated to ‘Approved Eligibility’ Form. |
| Postconditions: | A list of eligible and pending nominees is displayed. |
| Flow of Activities: | |  |  | | --- | --- | | Actor | System | | 1. Administrator has navigated to ‘Approved Eligibility’ Form and clicks ‘View List’.  2. Administer clicks view next to an individual’s nomination.  3. Administrator closes the individual’s nomination information page. | 1.1 Page validation is performed. If page validates, system opens connection to database and queries database for nomination names and positions.  1.2 A list of eligible and pending nominees is displayed.  2.1 The individual’s nomination information is displayed. | |
| Exception Conditions: |  |

### F.R.18: [ADMIN] View Nominee List Use Case

|  |  |
| --- | --- |
| Use Case Name: | [ADMIN] View Nominee List |
| Scenario: | Administrator shall be able to view a list of nominees. |
| Triggering Event: | APSCUF-KU employees accept nominations. |
| Brief Description: | A list is created of APSCUF-KU employees that accept nominations and the administrator can view the list of nominees. |
| Actors: | Administrator |
| Related Use Cases: | F.R.12(Approve Eligibility) F.R.18(View List of Nominations) |
| Stakeholders: | Administrator, NEC Member, Faculty |
| Preconditions: | APSCUF-KU employee accepts a nomination and clicks ‘submit’  Administrator has navigated to ‘Approve Eligibility’ Form. |
| Postconditions: | A list of eligible and pending nominees is displayed. |
| Flow of Activities: | |  |  | | --- | --- | | Actor | System | | 1. Administrator has navigated to ‘Approved Eligibility’ Form and clicks ‘View List’. | 1.1 Page validation is performed. If page validates, system opens connection to database and queries database for nomination names and positions.  1.2 A list of eligible and pending nominees is displayed. | |
| Exception Conditions: |  |

### F.R.19: [ADMIN] Sort Users Use Case

|  |  |
| --- | --- |
| Use Case Name: | [ADMIN] Sort Users |
| Scenario: | Administrator will need to see a list of users in alphabetical order. |
| Triggering Event: | Administrator will need to see a list of users in alphabetical order. |
| Brief Description: | Administrator shall have the ability to sort the users alphabetically or by department. |
| Actors: | Administrator |
| Related Use Cases: | None |
| Stakeholders: | Administrator |
| Preconditions: | Administrator is logged in.  Administrator has navigated to ‘All Users’ page. |
| Postconditions: | The list of users will be displayed in alphabetical order or by department. |
| Flow of Activities: | |  |  | | --- | --- | | Actor | System | | 1. Administrator will check either the ‘Alphabetically’ or ‘By Department’ checkbox or both.  2. Administrator will click ‘Sort’ button. | 2.1 A connection made to the database.  2.2 The appropriate SQL statement will execute on the union members table.  2.3 The results are displayed to the administrator. | |
| Exception Conditions: |  |

### F.R.20: [ADMIN] Create Election Use Case

|  |  |
| --- | --- |
| Use Case Name: | [ADMIN] Create Election |
| Scenario: | An APSCUF-KU election process. |
| Triggering Event: | The APSCUF-KU will need to hold an election. |
| Brief Description: | The Administrator will be able to create an election by filling out timelines  for the various election phases. |
| Actors: | Administrator |
| Related Use Cases: | None. |
| Stakeholders: | Administrator, NEC Member, Faculty |
| Preconditions: | An APSCUF-KU election will need to be held  Admin is logged in. |
| Postconditions: | The automated election process will be initialized. |
| Flow of Activities: | |  |  | | --- | --- | | Actor | System | | 1. Admin will enter the start date and end date of the three election phases: Nomination, Petition, and Voting.  2. Admin clicks ‘Create Election’ | 1.1 A connection is made to the database  1.2 The dates are stored in the database.  2.1 The system will periodically check the system date against the dates stored in the database. | |
| Exception Conditions: |  |

|  |  |
| --- | --- |
| Use Case Name: | [NEC]View Election Results |
| Scenario: | The NEC members will need to view the results of the election. |
| Triggering Event: | The voting phase has ended. |
| Brief Description: | The voting phase has concluded and the NEC members will no need to view the results |
| Actors: | NEC |
| Related Use Cases: | None. |
| Stakeholders: | NEC |
| Preconditions: | The voting phase has ended.  NEC member is logged in.  NEC member has navigated to the ‘Election Results’ page |
| Postconditions: | The election results will be displayed to the NEC member |
| Flow of Activities: | |  |  | | --- | --- | | Actor | System | | 1. NEC member will click the view election results button. | 1.1 Page validation is performed. If page validates, system opens connection to database and queries database for election results.  1.2 The results of the election is displayed. | |
| Exception Conditions: |  |

### F.R.21: [NEC] View Election Results Use Case

### F.R.22: [NEC] Approve Nominations Use Case

|  |  |
| --- | --- |
| Use Case Name: | [NEC] Approve Nominations |
| Scenario: | NEC receives a list of nominees, inspects list and approves/disapproves  individual nominees |
| Triggering Event: | APSCUF-KU employees accept nominations. |
| Brief Description: | A list is created of APSCUF-KU employees that accept nominations and the NEC is able to approve nominations. |
| Actors: | NEC |
| Related Use Cases: | None |
| Stakeholders: | Administrator, NEC Member, Faculty |
| Preconditions: | APSCUF-KU employee accepts a nomination and clicks ‘submit’  NEC member(s) have navigated to the ‘Approve Nominations’ page. |
| Postconditions: | An approved list of candidates is stored in the database. |
| Flow of Activities: | |  |  | | --- | --- | | Actor | System | | 1. NEC selects approve/disapprove radio button next to each nominee and clicks ‘submit’. | 1.1 Page validation is performed. If page validates, system opens connection to database and enters the data into the database. | |
| Exception Conditions: |  |

### F.R.23: [NEC] Approve Votes Use Case

|  |  |
| --- | --- |
| Use Case Name: | [NEC] Approve Votes |
| Scenario: | The NEC members will view the list of votes and approve them |
| Triggering Event: | The voting phase has ended |
| Brief Description: | The voting phase has ended and the NEC members will need to sign  off on the votes |
| Actors: | NEC |
| Related Use Cases: | None |
| Stakeholders: | NEC |
| Preconditions: | The voting phase has ended  An NEC member is logged in.  NEC member has navigated to the ‘Approve Votes’ page |
| Postconditions: | The votes shall be approved. |
| Flow of Activities: | |  |  | | --- | --- | | Actor | System | | 1.The votes are displayed and the NEC member clicks ‘Approve’ or ‘Deny’  button. | 3.1 A connection made to the database.  3.2 The information is updated in the WTS table  3.3 Connection is terminated. | |
| Exception Conditions: |  |

### F.R.24: [ALL] Place Nominations Use Case

|  |  |
| --- | --- |
| Use Case Name: | [ALL] Place Nominations |
| Scenario: | Members select other members or themselves as candidates for the available positions. |
| Triggering Event: | The election process has begun. |
| Brief Description: | Members will navigate to the ‘Nominations’ and will be presented with a list of all APSCUF-KU members and next to each name will be a check box for each available position. |
| Actors: | Administrator, NEC Member, Faculty |
| Related Use Cases: | F.R.34 |
| Stakeholders: | Administrator, NEC Member, Faculty |
| Preconditions: | The election process has begun.  User has navigated to the ‘Nominations’ page |
| Postconditions: | A user will have successfully nominated an existing APSCUF-KU  member for a position. |
| Flow of Activities: | |  |  | | --- | --- | | Actor | System | | 1. Member checks at least one check box next to an APSCUF-KU members name and clicks the ‘Nominate’ button. | 1.1 Page validation is performed. If page validates, system opens connection to database and enters the name(s) and position(s) that were nominated.  1.2 System sends e-mail to user confirming their nominations.  1.3 System sends e-mail to person(s) nominated to inform them of their nomination. | |
| Exception Conditions: |  |

### F.R.25: [NEC] Approve Election Results Use Case

|  |  |
| --- | --- |
| Use Case Name: | [NEC] Approve Election Results Use Case |
| Scenario: | The vote phase has concluded, the votes have been tallied and now the NEC will view the results for approval. |
| Triggering Event: | The voting phase has ended |
| Brief Description: | The vote phase has concluded, the votes have been tallied and now the NEC will view the results for approval. |
| Actors: | NEC |
| Related Use Cases: | None |
| Stakeholders: | Administrator, NEC Member, Faculty |
| Preconditions: | The vote phase has ended  The NEC has approved the votes.  The results have been tallied.  An NEC member is logged in.  The NEC member has navigated to the ‘Election Results’ page |
| Postconditions: | The election results have been approved |
| Flow of Activities: | |  |  | | --- | --- | | Actor | System | | 1. The NEC member views the election results and clicks either the ‘Approve’ or ‘Deny’ button. |  | |
| Exception Conditions: |  |

### F.R.26: [ALL] Petition a Nomination Use Case

|  |  |
| --- | --- |
| Use Case Name: | [ALL] Petition A Nomination |
| Scenario: | Members will be able to nominate members through a petition process  one week before the election. |
| Triggering Event: | A slate of candidates has been presented to the NEC. |
| Brief Description: | After a slate of candidates has been presented members will have one  last chance to nominate a member via the petition process. |
| Actors: | Administrator, NEC Member, Faculty |
| Related Use Cases: | F.R.36 |
| Stakeholders: | Administrator, NEC Member, Faculty |
| Preconditions: | A slate of candidates has been presented to the NEC.  User has navigated to the ‘Petition’ page |
| Postconditions: | A petition has been created for the nomination of a member, and if  having the required 10 signatures the petition will be presented to the NEC. |
| Flow of Activities: | |  |  | | --- | --- | | Actor | System | | 1. User selects a member/position to nominate and clicks ‘Create Petition’.  2. Members click link in e-mail.  3. Members click ‘Sign Petition’ button. | 1.1 System sends an e-mail to all members informing them that a petition has been created and contains a link to the petition page.  2.1 Petition page is displayed to user.  3.1 Page validation is performed. If page validates, system opens connection to database and enters their electronic signature to the database. | |
| Exception Conditions: |  |

