System Requirement Specification

Conference Management System

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Chapter 1

Introduction

1.1 Purpose

Conference Management System is a web-based application that handles a variety of aspects of conference management, including user registration, conference registration, paper submissions by authors, reviewer registration, papers assignment for reviewers, review submission, and conference notifications. This document is meant to delineate the features of Conference Management System, to serve as a guide to the developers on one hand and a software validation document for the prospective client on other.

1.2 Scope

We describe what features are in the scope of the project and what features are out of scope for this project.

In scope:

- Registration of users on conference portal.
- Login of users on conference portal.
- Creation of conference on portal.
- Reviewer registration for a conference.
- Author submission of paper for a conference.
- Allocating submitted papers for reviewers. Display reviews submitted by reviewers to authors.
- Send notifications related to conference to users (i.e authors, reviewers)

Out of scope:

- Doesn't manage offline conference management i.e Accommodation, Conference event Scheduling etc.
- Managing Posters, Workshops on the portal.

1.3 Definitions, Acronyms and Abbreviations

Definitions:

- Paper Allocation Algorithm: Once all the submitted papers are obtained, papers are allocated to three reviewers based on the research interests of them.

Acronyms and Abbreviations

- CC: Conference Chair

1.4 Overview

The remaining of the SRS is arranged as follows:

- Section 2 gives the overall description of the software.
- Section 3 gives the outlines the specific requirements that the software is expected to deliver.
- The functional requirements in section 3 are given by various use cases.Few performance requirements and design constraints are also mentioned in section 3.
- Section 4 explains few possible future extensions of the software.
- Section 5 shows few user screens.

Chapter 2

Overall Description

2.1 Product Perspective

This product allows users to view multiple conferences in one place, submit a paper to a conference, and receive reviews from reviewers. It also allows reviewers to express their interest in reviewing for a conference. The portal also sends out reminders to users, such as deadlines and events. The product is designed to be a stand-alone web application that runs in a browser context. As a result, it runs on all modern web browsers, making it available across all platforms.

2.2 Product Functions

The following table gives the overall view of all the use cases.

Class of use case	Use case	Description of use case
Use cases related to authorization	Register user in portal Login to the portal Delete account	Register in the portal Login to the portal Delete user from the portal
Use cases related to profile	View profile Update profile	User can view and edit their profile in the portal
Use cases related to conference registration	create conference modify conference	A user can host a conference in the portal upon the approval of the admin A CC can also update the details of his conference
Use cases related to reviewer selection	Invite reviewers Apply as reviewer	CC will invite some users to be a reviewer Interested users can request CC to be a reviewer for the conference

Use cases related to reviewer assignment	Reviewer assignment to papers	CC will assign atleast 3 reviewers to each paper either automatically or manually
Use cases related to Paper submission	Submit paper Withdraw submission Modify submission Submit Camera Ready Submission	Users can submit or withdraw paper to ongoing conferences. Users should submit a Camera Ready Submission if their paper is accepted.
Use cases related to reviews	Submit review Edit review	Reviewer will submit reviews for all papers assigned to them Reviewer can submit the updated review to the portal before the deadline
Use cases related to Final Paper decisions	Final paper decisions	CC decides the status of a paper based on the reviews
Use cases related to event notifications	Reviewer invitation Notification Deadline Notification Paper Acceptance Notification	CC will invite some users to be a reviewer Emails will be sent to all the users regarding their respective notifications Acceptance status and reviews will be revealed to the Authors

2.3 User Characteristics

A user that registers on the site should be familiar with how the conferences work.

2.3.1 Authors

The submission parameters should be thoroughly understood by the authors.

2.3.2 Reviewers

The user applying for a reviewer position should have past experience in the field of interest, demonstrating his ability to write high-quality reviews.

2.3.3 Conference Chair

The conference chair should be certified and well-known in the subject, demonstrating their ability to organize a conference.

2.4 Principal Actors

There are four principal actors in this conference management system i.e Authors, Reviewers, Conference Chair, Admin.

2.5 General Constraints

- For the complete functionality, the portal requires internet connection.
- Browser should be relatively modern and updated.

2.6 Assumptions and Dependencies

- The user's information is assumed to be correct and verified upon registration.
- Admin approval is needed for conference creation.
- For proper working of the portal, it needs stable internet connection.

Chapter 3

Specific Requirements

3.1 Functional Requirements

The following are the functional requirements and the various use cases

3.1.1 Use cases related to authorization

1. **Use Case 1** : Register user in the portal
   Primary actor: User
   Pre Conditions: Internet connectivity, valid email address
   Main Scenario:

   (a) Visit the website

   (b) The user is required to click on signup.

   (c) Login Page that prompts for email address and password and some basic information is displayed.

   Alternate Scenario:

   (a) Email address Already in use

   (b) Not a valid email address

2. **Use Case 2** : Login into the portal
   Primary actor: User
   Pre Conditions: Registered email address, Internet connectivity
   Main Scenario:

   (a) Visit the website

   (b) Login Page is displayed which contains username and password.

   (c) The user is required to enter their credentials.

   (d) After Successful login, user can view his/her profile and all the ongoing and future conference details.

   (e) The user can now can also send a request to host a conference.

Alternate Scenario:

(a) Not a Registered email address : User is prompted either to create an account or re-enter their credentials.

(b) Wrong Password: User is prompted to re-enter the password.

3. **Use Case 3** : Delete account
Primary actor: User
Pre Conditions: Registered email address, Internet connectivity
Main Scenario:

(a) Visit the website

(b) Login Page is displayed which contains username and password.

(c) The user is required to enter their credentials.

(d) After Successful login, user can navigate into their profile and clicks on ”Delete Account” button.

(e) The users are redirected to a new page where they are asked to re-enter their credentials.

(f) Portal deletes the account if their credentials are valid.

Alternate Scenario:

(a) If the credentials are invalid, the user is asked to re-enter their details.

3.1.2 Use cases related to Profile

1. **Use Case 4**: View Profile

   - **Primary Actor**: User
   - **PreConditions**:Availability of internet, account user already logged in their account.
   - **Main Scenario**:
     - User clicks on the “View Profile” button and is redirected to the profile page.
     - The user can view various types of information associated with his/her profile.

2. **Use Case 5**: Update Profile

   - **Primary Actor**: User
   - **PreConditions**:Availability of internet, account user already logged in their account.
   - **Main Scenario**:
     - User clicks on the “View Profile” button and is redirected to the profile page where there is an option to modify profile.

  - The user can modify various types of information associated with his/her profile.
- **Alternate Scenarios**:
  - In case of inconsistent details, an error message is prompted and the user is asked to re-enter the corresponding erroneous parts.

3.1.3 Use cases related to Conference Registration

1. **Use Case 6**: Creating conference
   - **Primary Actor**: User, Admin
   - **Pre Conditions**:User should have a registered account.
   - **Main Scenario**:
     - A user can host a conference by providing details about the conference like CC's email-address, full name and short name of conference, conference logo, location, dates to the Admin etc.
     - User clicks on the "Request a New Conference" button and is redirected to a new page.
     - After clicking on the submit button,the Admin approves the user as a chair if he is legitimate, then the conference is hosted on the portal.
     - once the conference is hosted,all the users get the details about the conference on their main page.
   - **Alternate Scenario**:
     - The page is reloaded with the associated error notice if the user credentials are wrong or the conference details contradict with any existing conference.
     - If the paper submission deadline falls within two months after the portal's construction of the conference web page, the page will be flooded with error notices, prompting the user to re-enter the information.
2. **Use Case 7**: Modifying a conference
   - **Primary Actor**: CC, Admin
   - **Pre Conditions**:User should be approved CC for the conference.
   - **Main Scenario**:
     - The user navigates to the conference website and clicks "Update Conference Details."
     - If there are any modifications CC should request the Admin for modifications. If the request is approved by the Admin, he updates the conference record on the portal.
   - **Alternate Scenario**:
     - If the modifications requested by the CC are not approved by the admin, error appears indicating that updates are not permitted.

3.1.4 Use cases related to Reviewer selection

1. **Use Case 8** : Invite Reviewers
   Primary actor: Portal
   Pre Conditions: Portal should be active.
   Main Scenario:

   (a) After the conference is created, CC sends out "an invitation to become reviewer" mail to reviewer through the portal.

   (b) If the user wishes to be reviewer for the conference, user will login to the portal and click on "Apply as reviewer" option.

   Alternate Scenario:

   (a) Back-end failure: Portal re-sends the invite mail from CC in any case of failures from mailing system.

2. **Use Case 9** : Apply as Reviewer
   Primary actor: User
   Pre Conditions: Portal should be active. User should login to the portal.
   Main Scenario:

   (a) User clicks on "Apply as reviewer" option on the conference page.

   (b) User is then redirected to a new page/form wherein he fills in details such as areas of expertise, maximum number of papers they can review for the conference. Users are required to review at least 3 papers in a each topic.

   (c) Once the user submits these details in portal, this list is sent to CC for approval of user as Reviewer.

   Alternate Scenario:

   (a) Once the user fills up the details in the "Apply as Reviewer", corresponding message is loaded on the page.

   (b) If the fields area of expertise, maximum number of papers they can review are left unfilled, user is not allowed to apply as reviewer.

   (c) If the number of papers they can review is entered less than 3, an error message is displayed on the page.

3.1.5 Use cases related to Reviewer Assignment

1. **Use Case 10** : Reviewers assignment to papers
   Primary actor: Portal, Users
   Pre Conditions: Portal should be active. User should be logged into account.
   Main Scenario:

(a) Algorithm takes submitted papers, registered Reviewers and their inputs and assigns the papers to each Reviewer optimally.

(b) Finally, a notification is sent out to User who is assigned a paper for review. Users can check "Assigned Papers" sections and start writing their reviews.

Alternate Scenario:

(a) If the constraints:

- 3 Reviewers for each submitted paper
- Number of papers assigned is greater than Number of papers assigned by the algorithm

an error is raised. CC's are then asked to recheck the inputs.

3.1.6 Use case related to Paper submission

1. **Use Case 11** : Submit Paper
Primary actor: User
Pre Conditions: User shouldn't be a reviewer or a chair
Main Scenario:

(a) The user will go to the desired Conference. Clicking on "New submission" will redirect to the new page, this page consists of 3 options: 1. Paper submission, 2. Review submission. 3.Poster/Camera-ready submission.

(b) When the Paper submission deadline is active, the other two options will display "Not Available".

(c) User needs to submit an abstract, PDF-format of paper and other information regarding the paper such as sub-authors, title.

(d) Clicking the "Submit" button will submit the data.

(e) Multiple submissions are allowed, until the deadline. The last submission will be considered and can be removed/edited/replaced.

Alternate Scenario:

(a) If the mandatory fields are not filled, an error message is displayed and the user is asked to fill the form again.

(b) If the "Submit" is clicked after the deadline, an error message will be displayed and the last submission will be considered as final.

2. **Use Case 12** : Withdraw Submission
Primary actor: Author
Pre Conditions: User should be registered and should have submitted a paper to a conference
Main Scenario:

(a) The user will go to the desired Conference. Clicking the "withdraw" button will give a warning, along with a "yes" and "no" button. Clicking "yes" will withdraw the submission. Clicking "no" will have no effect on the submission.

(b) All authors and co-authors will be notified through email for a successful withdrawal.

3. **Use Case 13** : Modify Submission
Primary actor: Author
Pre Conditions: User should be registered and should have submitted a paper to a conference
Main Scenario:

   (a) The user will go to the desired Conference. Clicking the "modify" button will direct the user to the same page of submitting the paper.

   (b) The form will have the previously filled entries present in the fields. The user is expected to make changes in desired fields.

   (c) Once the user clicks on submit, the updated files and fields are saved in the database.

4. **Use Case 14** : Submit Camera Ready Submission
Primary actor: Author
Pre Conditions: User should be registered, should have an acceptance notification from the portal
Main Scenario:

   (a) The author will go to the desired submission at the conference. If the author's paper has been accepted, and the camera-ready deadline is active, the Camera-ready tab will be active and other tabs will be frozen.

   (b) Users can upload poster and camera-ready PDFs. Clicking "Submit" will submit the files.

   (c) It has to be noted that multiple submissions are allowed till the deadline. With every repeated submission, the previous files will be visible and can be replaced/removed.

   Main Scenario:

   (a) If the user does not upload camera-ready and poster, the user should directly contact CC, so special arrangements can be made from his side.

   (b) If the "Submit" is clicked after the deadline, an error message will be displayed and the last submission will be considered as final.

3.1.7 Use cases related to Reviews

1. **Use Case 15** : Submit Review
Primary actor: Reviewers
Pre Conditions: Portal should be active. User should be logged into account. Reviewer should be assigned as Reviewer for some paper.
Main Scenario:

(a) On the "Assigned Papers" page, Reviewer can see the list of all papers assigned to them for reviewing. Clicking on a particular paper will be redirected to the review form wherein they have to fill details like summary of paper, novelty, impact of paper, strong points, weak points etc.

(b) Once the details are filled, clicking on "Submit" button will submit the review.

Alternate Scenario:

(a) If the mandatory fields are not filled, Reviewer will not be allowed to submit a Review.

(b) If the Reviewer opens the review page after the deadline, an error message on the page will be opened.

2. **Use Case 16** : Edit review
Primary actor: Reviewers
Pre Conditions: Portal should be active. User should be logged into account. Reviewer should be assigned as Reviewer for some paper.
Main Scenario:

(a) On the "Assigned Papers" page, Reviewer can see the list of all papers assigned to them for reviewing.

(b) By default already submitted review will be present in the text fields. Reviewer can edit it based on their convenience.

(c) Finally, clicking the "Submit" button will submit the newly written review.

Alternate Scenario:

(a) If the mandatory fields are not filled, Reviewer will not be allowed to submit a Review.

(b) If the Reviewer opens the review page after the deadline, an error message on the page will be opened.

3.1.8 Use cases related to final paper decisions

(a) **Use Case 17** : Final paper decisions
Primary actor: CC
Pre Conditions: Portal should be active. CC should be logged into account.
Main Scenario:

i. After the paper deadline, CC can see paper, reviews for each submission made.

ii. Analysing all the data CC can "Accept" or "Reject" along with optional text for the decision.

iii. Once CC makes the decision, clicking on "Submit" will submit the decision.

Alternate Scenario:

i. Clicking on the submit button with incompletely filled form will raise an error.
ii. If the CC, clicks the "submit" after crossing the deadline, an error message will be displayed.

3.1.9 Use cases related to Event Notifications

(a) **Use Case 18** : Reviewer invitation notification
Primary actor: Chair
Pre Conditions: Chair should be hosting a conference on the portal
Main Scenario: Chair will send invites to the reviewers requesting them to review for the conference.

(b) **Use Case 19** : Deadline Notifications
Primary actor: Portal
Pre Conditions: Portal should be active.
Main Scenario: Emails will be sent to respective authors and reviewers regarding the deadlines for paper submission, camera ready submission, review deadline etc.

(c) **Use Case 20** : Paper Acceptance Notification
Primary actor: Portal
Pre Conditions: Portal should be active. Paper decision deadline has been crossed. All papers have been reviewed.
Main Scenario: Portal will iterate through all the submissions of a conference, and depending on the response of reviewers, the authors of each submission will be notified regarding the acceptance status and the reviews will be revealed.

3.2 Performance Requirements

- The response time should be short if you have a stable internet connection.
- Paper Allocation Algorithm should perform the allocation to reviewers in arguably less time.
- Should run well in browser environment.

3.3 Design Constraints

- **Security:**Users should only be able to see information that is relevant to their user responsibilities. Only reviewers should have access to submitted papers, and they should be made public only after they have been published. Databases must be protected from unauthorised access, viruses, and other malicious threats.

- **Fault Tolerance:**Data will not get corrupted under any event of hardware failure or system crash.
- **Reliability:**System outages should be minimised as much as possible, especially near submission deadlines.

3.4 External Interface Requirements

Homepage (Default root endpoint) consists of a login screen where a user can login through their email and password. In case the user has not created an account, an option of creating a new user account is provided which will redirect the user to a new registration page. In case of logged in users, a conference list of ongoing conferences is shown. In that list there are options for ”Submitting Paper” and ”Reviewing Paper” for that respective conference. Navigation bar consists of links for ”Home”, “Submitted Papers”, “Assigned Papers”, ”Notifications” and also an Option to “Create conference”. By clicking on any conference, a new page is displayed which consists of details regarding that conference, previous submissions (if any) for author, Review draft for the papers (if any) for the reviewer.

Chapter 4

Future Extensions

- Including plagiarism checks as part of the portal.
- Add Workshops management and also can allow the feature of poster submissions.
- A feature of emergency reviewers can be included.
- More optimised paper allocation algorithm
- Information regarding offline conferences like venue, timings, accommodation etc can be added.

Chapter 5

Appendix

5.1 Login Screen:

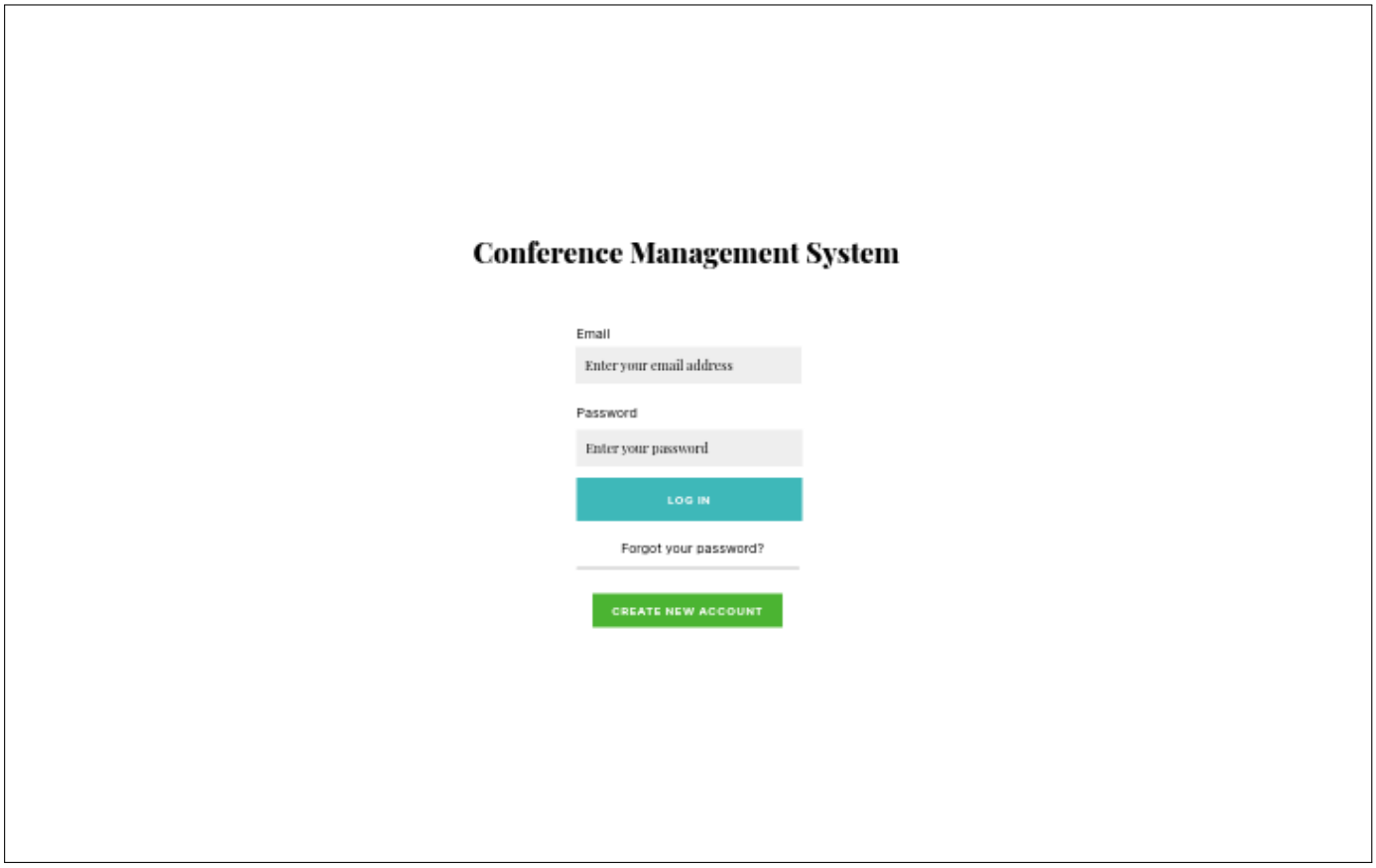

Figure 5.1: Login Screen

5.2 Profile Creation Page:

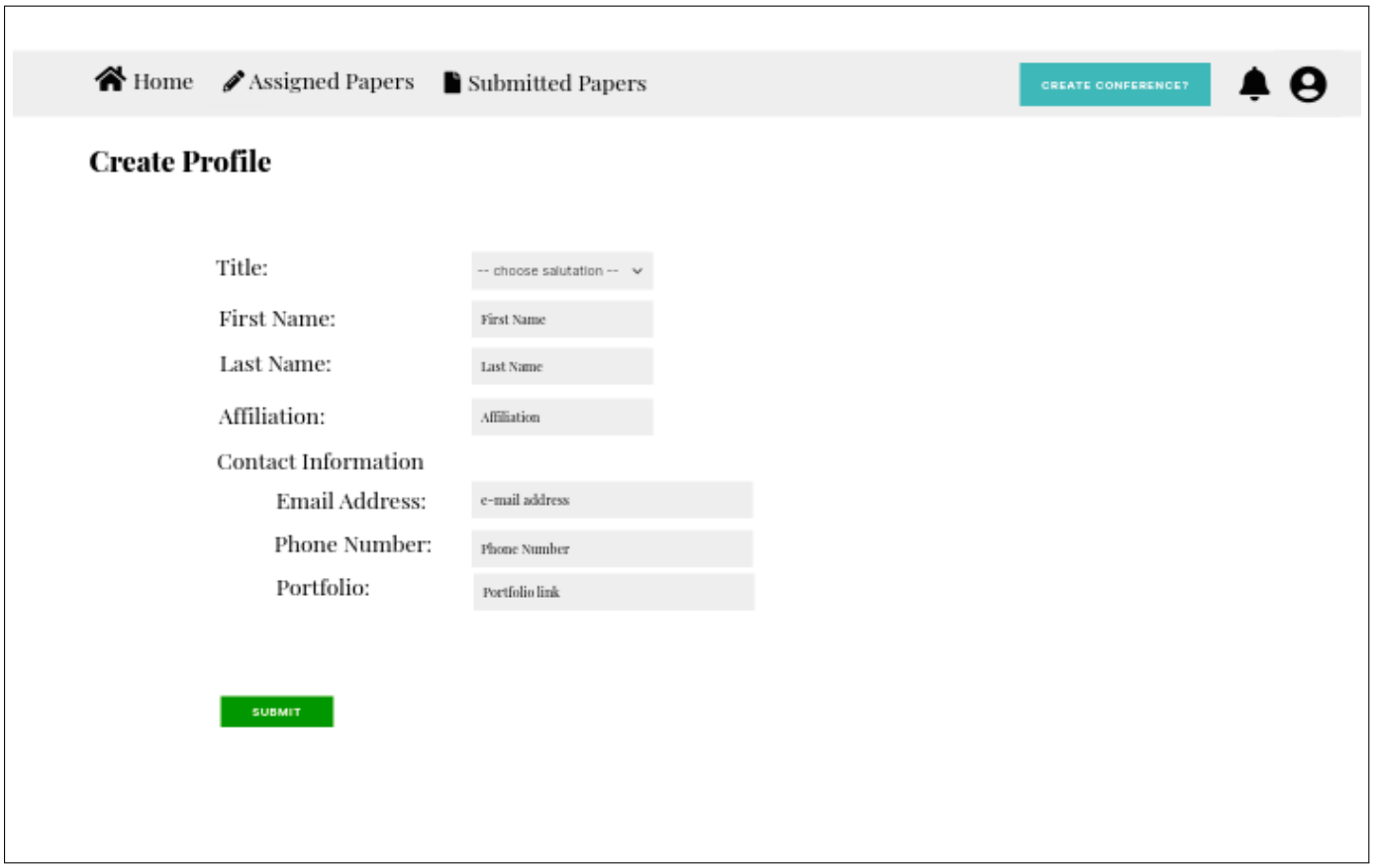

Figure 5.2: Profile Creation Page

5.3 Profile Page:

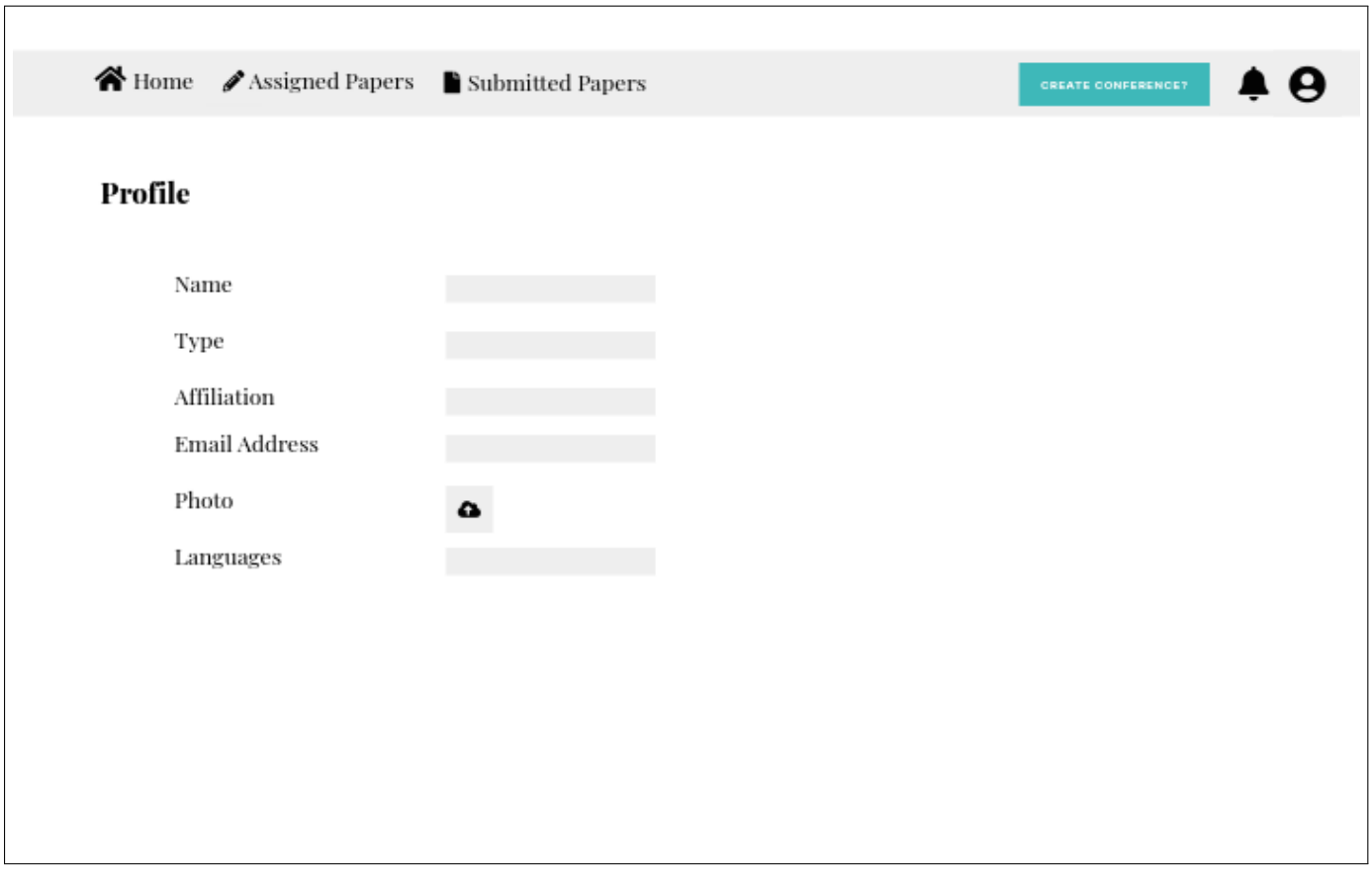

Figure 5.3: Profile Page

5.4 Main Page:

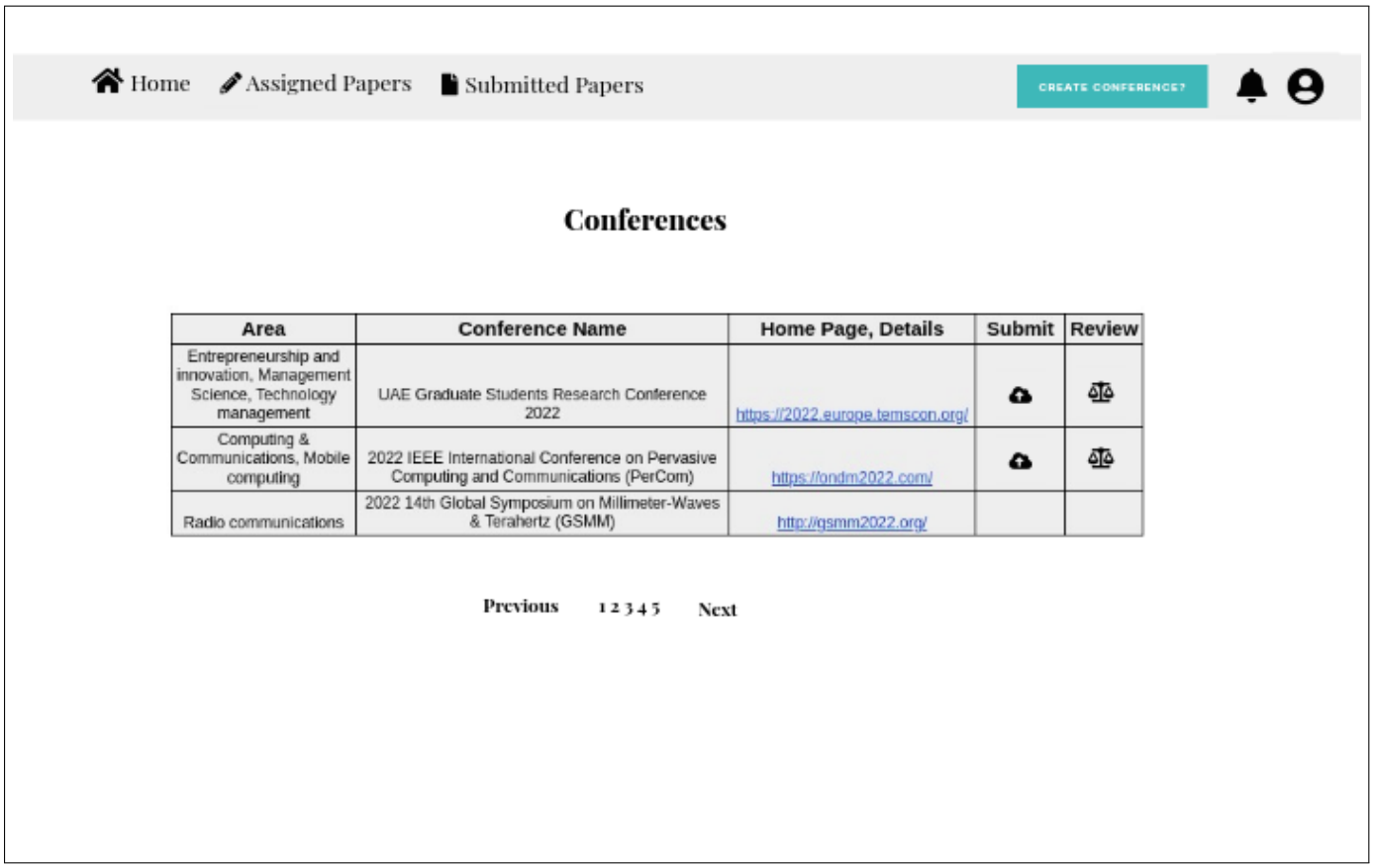

Figure 5.4: Main Page

5.5 Conference Creation Page:

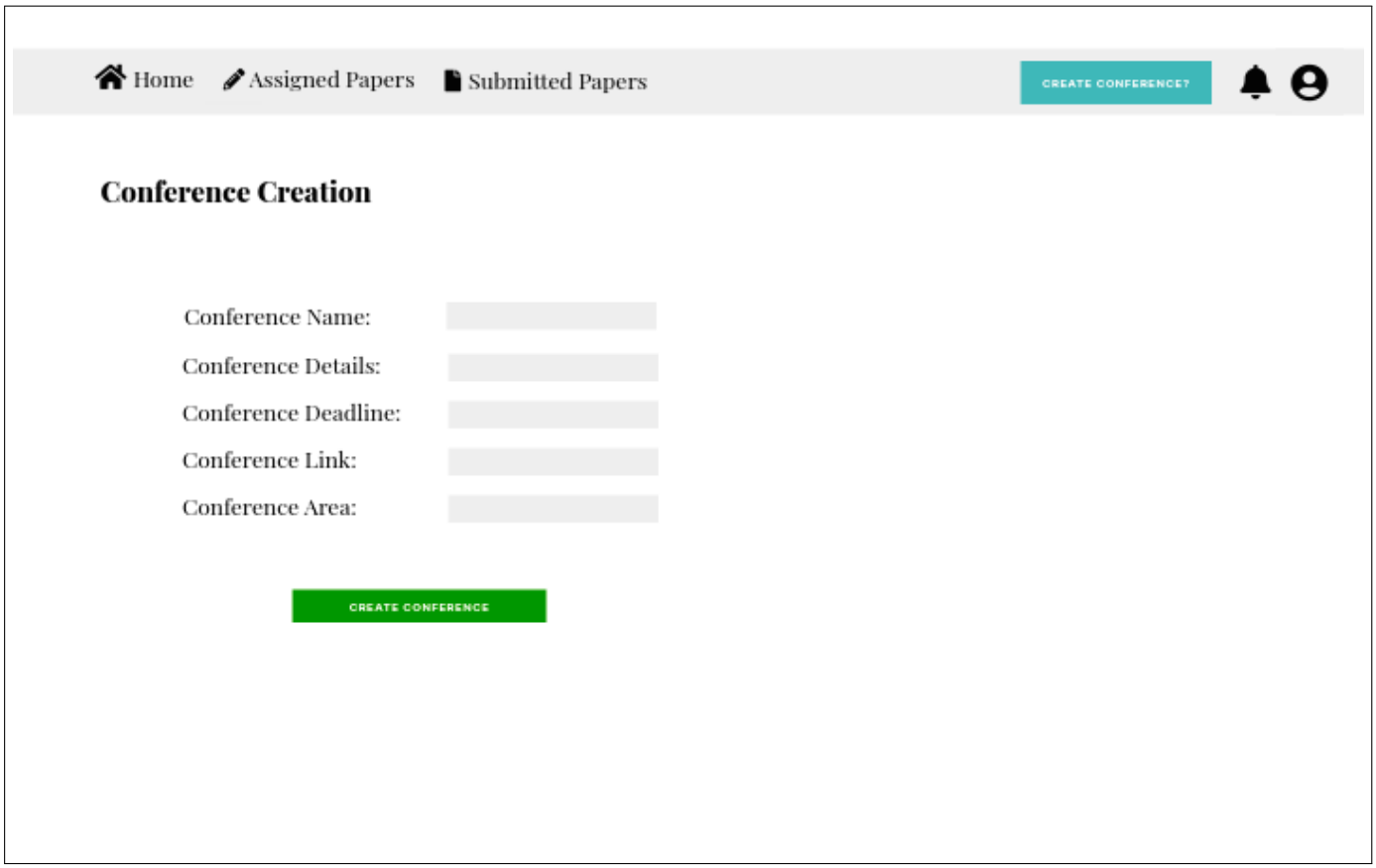

Figure 5.5: Conference Creation Page

5.6 Paper Submission Page:

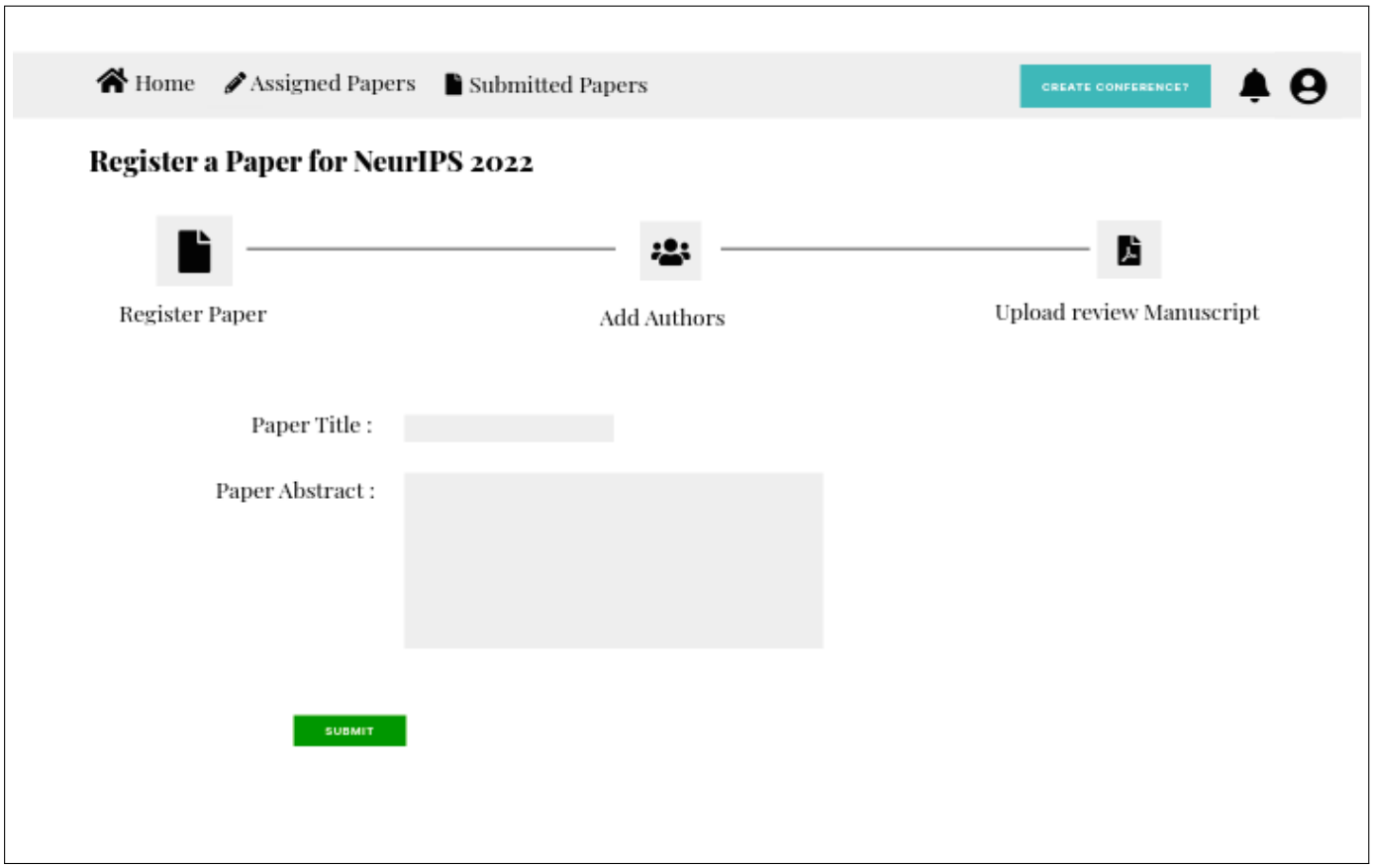

Figure 5.6: Paper Submission Page

5.7 Reviewer Registration Page:

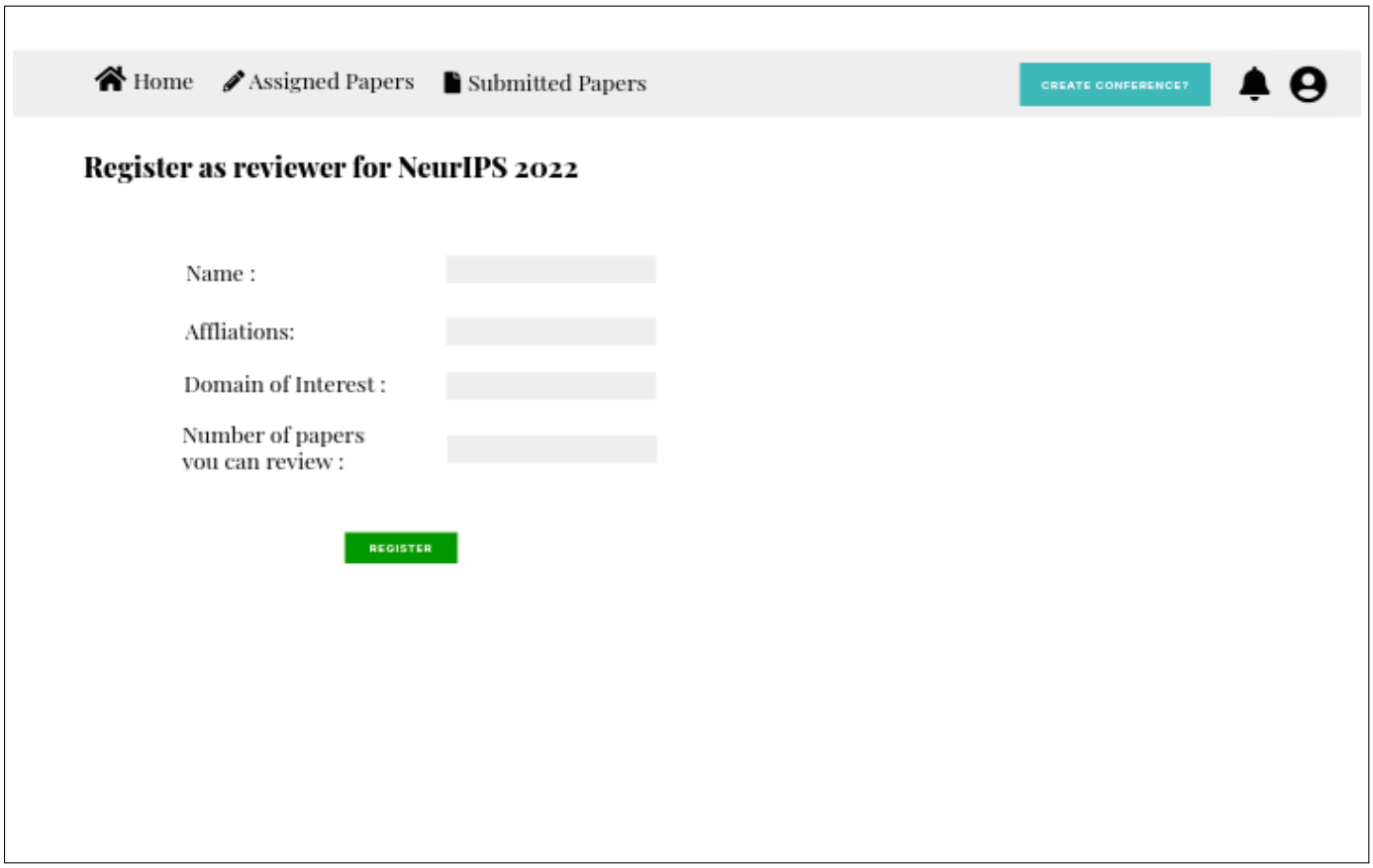

Figure 5.7: Reviewer Registration Page

5.8 Assigned Papers Page:

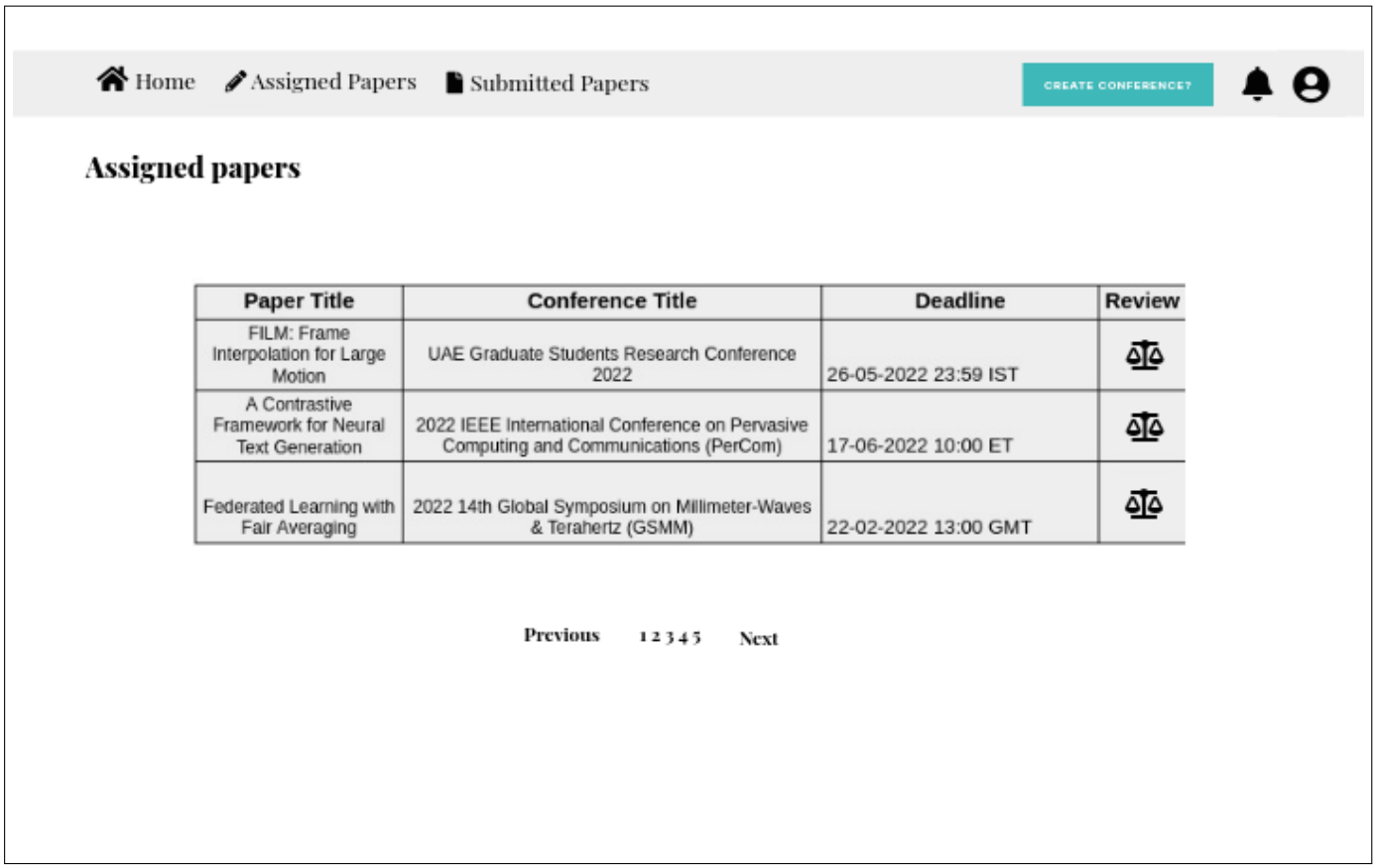

Figure 5.8: Assigned Papers Page

5.9 Submitted Papers Page:

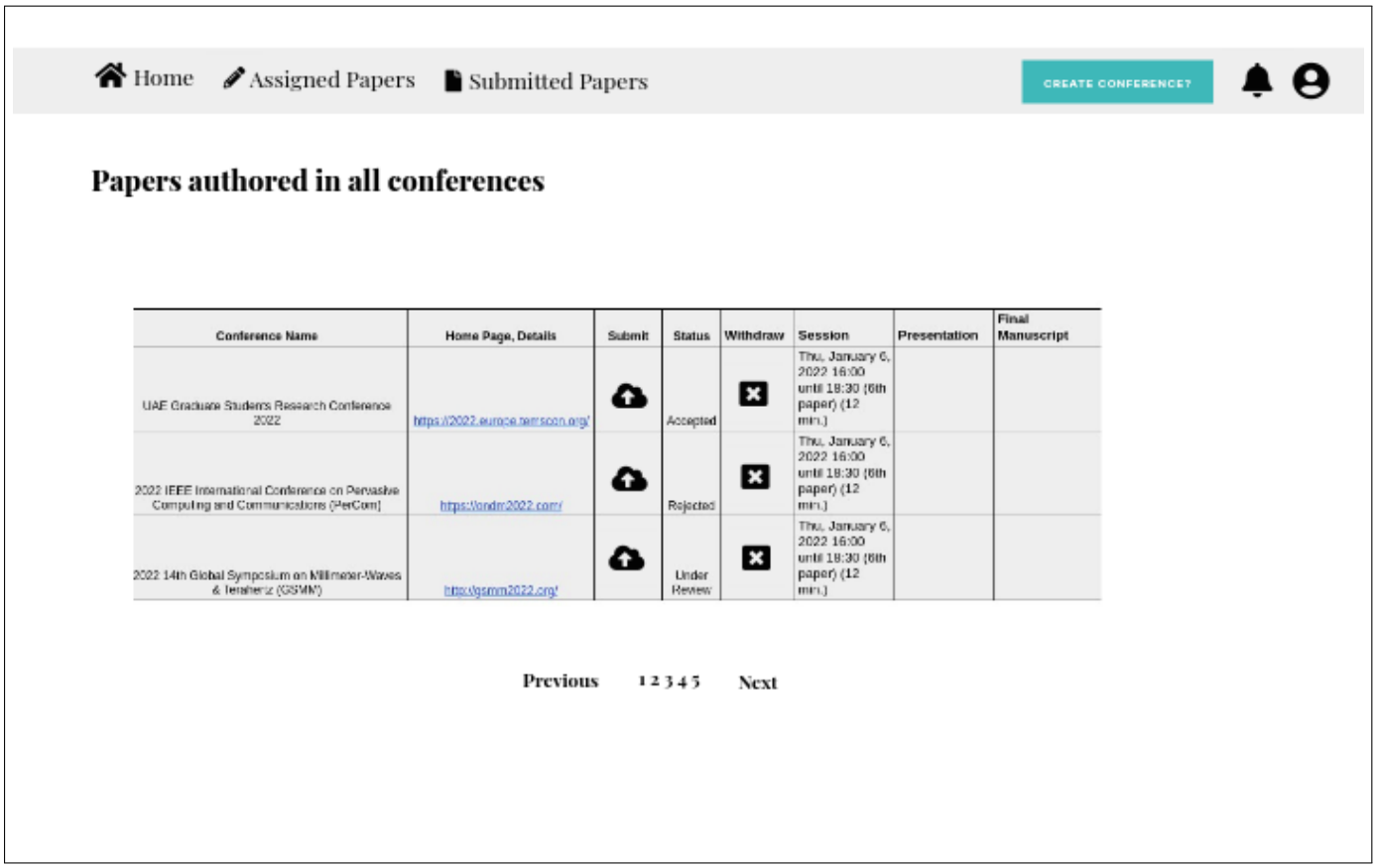

Figure 5.9: Submitted Papers Page

5.10 Help Page:

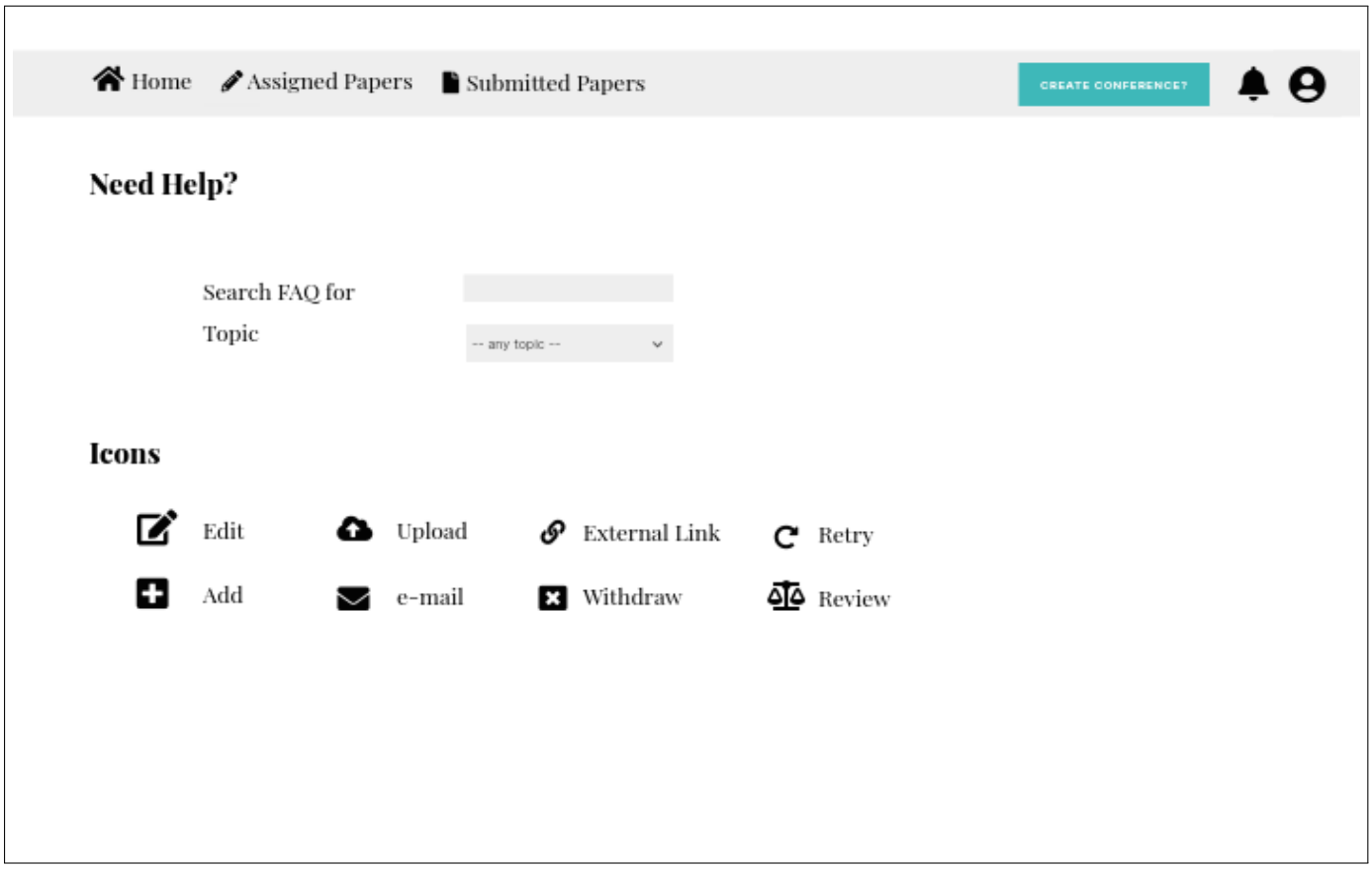

Figure 5.10: Help Page