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# **Publication Management System**

## **SRS Document**

### **Group: 06**

Prabhath Chellingi - CS20BTECH11038

Kodavanti Rama Sravanth - CS20BTECH11027

Srivatsan T - CS20BTECH11062

Megh Shah - CS20BTECH11032

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# 1 Introduction

## 1.1 Purpose

**Publication Mangement System** (PMS) is used to streamline the processes of manuscript submission, review, and publication for academic journals and conferences.

This document is meant to delineate the feature of PMS, so as to serve as a guide to the developers on one hand and a software validation document for the prospective client on the other.

## 1.2 Scope

We describe what features are in the scope of the software and what are not in the scope of the software to be developed.

- In Scope:

1. Development of a platform that accepts manuscripts from several authors which are being submitted to various conferences. The platform tracks the manuscript submission & gives the status of it.
2. A separate hierarchy of users, who are being given different roles. The platform gives special features based on the role of the user. Permissions management will also be based on the role.
3. A separate dashboard showcasing their literature work, awards & achievements.
4. A linkage with email such that the reviewer of a manuscript can directly contact the author for any comments, or clarifications through email.
5. Integration of premium content which is only available to premium users and it can be achieved based on their literature work.

- Out of Scope:

1. Plagiarism detection
2. Ghostwriting services
3. Copyright management
4. Payment processing for the premium subscription

## 1.3 Definition and Abbreviations

- PMS: Publication Management System
- SRS: Software Requirements Specification
- API: Application Programming Interface
- CMS: Content Management System
- ISBN: International Standard Book Number
- DOI: Digital Object Identifier
- UI: User Interface



## 1.4 Overview

The remaining part of SRS is organized as follows:

- **Section 2** gives overall description of the software.
- **Section 3** gives the specific requirements that the software is expected to deliver.
- **Section 4** gives possible future extensions of the system.
- **Section 5** gives the rough User Interface screens.

## 2 Overall Description

### 2.1 Product Perspective

The Publication Management System is a web-based software application mainly aimed at authors, editors, reviewers, and publishers of various backgrounds & also aims at the users who want to research the latest technology by accessing the latest manuscript. PMS is a platform that will be user-friendly & it is very easy to use. The UI of the software will be different for different types of users. The software's primary aim is not to only showcase the manuscript accepted at various conferences but also to have a method of submitting at various conferences & getting reviewed of those papers by the reviewers.

### 2.2 Product Functions

The PMS application will support the following core functionalities:

#### 2.2.1 Manuscript Management

- Accept submissions for manuscripts from authors in various formats (e.g Docx, PDF)
- Track manuscript submissions and track their progress
- Allow file versioning and revisions
- Integrated messaging feature between Editors and Reviewers

#### 2.2.2 Review and Editorial Workflow

- Assign Reviewers to manuscripts based on expertise and availability
- Manage blind peer review process
- Collect and manage peer review feedback from Reviewers to Authors
- Track editorial decisions and revisions



### 2.2.3 Production and Typesetting

| Class of Use Case  | Use Case   | Description of Use Case   |
|--------------------|--|---|
| Roles              | User choosing role   | Different pages and accesses for different roles  |
| Authorization      | Login<br>Logout<br>Change Password   | Login to the website<br>Logout from the website<br>Change user password   |
| Profile Management | View Profile<br>Update Profile   | Users can update and view their profiles.   |
| Authors            | Submit Manuscripts<br>View Manuscripts<br>Read Reviews   | Author can submit their manuscripts as well as view their past ones and read reviews for the same   |
| Admin              | Open Submissions<br>Assign Reviewers<br>Manage Reviewer Registrations<br>Remove Reviewers<br>Make Manuscripts Open<br>Delete Manuscripts<br>Manage Open Requests | Admin opens the submission portal for manuscripts. Once authors start populating them, admins assign reviewer to each paper. Admins are also tasked with hiring reviewers from a bunch of applications bases on skill set. They also manage manuscripts once they are reviewed and accepted in a conference. They decide Open papers i.e Manuscripts which are accessible to all readers to be read fully.                        |
| Reviewers          | Apply for reviewer positions<br>Review Manuscripts   | Reviewers apply to be selected in a conference. Once approved by admin for the position, he gets assigned papers by the admin. He can read the paper and give feedback and ultimately decide to accept or reject the paper  |
| Readers            | Read Manuscripts<br>Request to Open Papers   | Readers log into PMS and are greeted with a homepage will all the papers accepted in the conference. They are also tagged Open/-Close. Closed papers only contain a preview while Open papers can be read fully. Any reader who wishes to read a closed paper can raise a request for the same along with a reason to the admin. Admin takes the call whether to open a manuscript based on number of requests as well as reasons |

## 2.3 User Characteristics

The minimum expectation of users interacting with the proposed PMS application.

- Familiarity with basic computer skills and basic internet navigation
- Understanding of publications process and terminology
- Familiarity with online collaboration tools



## 2.4 Principal Actors

The PMS will cater to several user types with specific needs:

- **Authors:** Submit manuscripts, track review progress, receive feedback, and manage revisions.
- **Reviewers:** Access assigned manuscripts, provide peer review feedback, and communicate with authors.
- **Open Access:** Browsing access to the manuscripts published in conferences with subscriptions.
- **Admin:** Manage journal and conference information, configure workflow settings, and analyze publication data.

## 2.5 General Constraints

- A secure internet connection for full - functionality of the software.
- Cross-browser compatibility and responsiveness

## 2.6 Assumptions and Dependencies

- Users have access to a reliable internet connection
- Basic knowledge of the publishing process is beneficial

# 3 Specific Requirements

## 3.1 Functional Requirements

Below are the expected use cases for each of the principal actors interacting with the PMS

### 3.1.1 Use cases related to Roles

#### Use case 1: Choosing Role

Primary Actor : Authors, Reviewers, Reader

Required Conditions : Internet Connectivity

Success Scenario :

- User visits the landing page
- User selects their role among Authors, Reviewers or Reader
- User lands in Authorization page

Exceptions :

- In case of Network failure, 404 Error will be shown



### **3.1.2 Use cases related to Authorization**

#### **Use case 2: Login**

Primary Actor : Authors, Reviewers, Reader

Required Conditions : Internet Connectivity

Success Scenario :

- User lands in their Login page dedicated to their role
- User gets prompted to enter their ID and password
- User gets authenticated and moves to their home page

Exceptions :

- User enter Invalid credentials
- User will be prompted to enter them again

#### **Use case 3: Logout**

Primary Actor : Authors, Reviewers, Reader

Required Conditions : Internet Connectivity, User must be logged in

Success Scenario :

- User clicks the logout button
- User gets logged out of the system

#### **Use case 4: Change Password**

Primary Actor : Authors, Reviewers, Reader

Required Conditions : Internet Connectivity, User must be logged in

Success Scenario :

- User initializes change password functionality
- User gets prompted to enter their current ID and password along with their new password
- User password gets updated

Exceptions :

- User enter Invalid credentials
- User will be prompted to enter them again

### **3.1.3 Use cases related to profile**

#### **Use case 5: View Profile**

Primary Actor : Authors, Reviewers, Reader

Required Conditions : Internet Connectivity, User must be logged in

Success Scenario :

- User initializes view profile functionality
- User lands in the profile page and sees his details



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### **Use case 6: Update Profile**

Primary Actor : Authors, Reviewers, Reader

Required Conditions : Internet Connectivity, User must be logged in

Success Scenario :

- User initializes Update profile functionality
- User is presented with options to change parts of his profile depending on their role
- User modifies the profile and saves the changes

#### **3.1.4 Use cases for Authors**

### **Use case 7: Submit a Manuscript**

Primary Actor : Authors

Required Conditions : Internet Connectivity, User must be logged in

Success Scenario :

- User initializes Submit Manuscript functionality
- User gets prompted to enter the manuscript details along with the actual file containing the publication
- The manuscript gets submitted for conference

Exceptions :

- User fails to enter mandatory fields for the submission
- User will be prompted to enter them to submit successfully

### **Use case 8: View Manuscripts**

Primary Actor : Authors

Required Conditions : Internet Connectivity, User must be logged in

Success Scenario :

- User initializes view manuscripts functionality
- User gets shown the manuscripts they have submitted in a table along with their current status

### **Use case 9: Read Reviews**

Primary Actor : Authors

Required Conditions : Internet Connectivity, User must be logged in

Success Scenario :

- Author enters the submitted manuscripts page
- The reviewed manuscripts show up separately and the author can see the reviewer and read the reviews
- Authors also know if the manuscript is accepted/rejected after the review





### 3.1.5 Use cases for Admin

#### **Use case 10: Open Submissions**

Primary Actor : Admin

Required Conditions : Internet Connectivity, User must be logged in as Admin

Success Scenario :

- Admin opens submissions
- Authors can now start submitting the manuscripts

#### **Use case 11: Assign Reviewers**

Primary Actor : Admin

Required Conditions : Internet Connectivity, User must be logged in as Admin

Success Scenario :

- Admin enters the submitted manuscripts page
- Admin chooses individual papers and assigns reviewers to each of them

#### **Use case 12: Accepting Reviewer Registrations**

Primary Actor : Admin

Required Conditions : Internet Connectivity, User must be logged in as Admin

Success Scenario :

- Admin enters Reviewer applications
- Admin selects reviewers based on skill sets and requirements
- Reviewers get added to the system

#### **Use case 13: Remove Reviewers**

Primary Actor : Admin

Required Conditions : Internet Connectivity, User must be logged in as Admin

Success Scenario :

- Admin enters the view reviewers page
- Admin selects and reviews and clicks a button to delete his profile
- Admin reconfirms his decision
- The reviewer gets deleted from the system

#### **Use case 14: Make Manuscripts Open**

Primary Actor : Admin

Required Conditions: Internet Connectivity, User must be logged in as Admin

Success Scenario :

- Admin enters the accepted manuscripts page
- Admin chooses manuscripts and clicks a button to make it accessible to everyone
- The selected manuscript now appears in the Reader's homepage



### **Use case 15: Delete Manuscript**

Primary Actor : Admin

Required Conditions : Internet Connectivity, User must be logged in as Admin

Success Scenario :

- Admin enters the accepted manuscripts page
- Admin chooses the manuscript to be deleted and triggers a button
- Admin reconfirms the deletion
- The manuscript gets deleted from the accepted list and stops showing up in readers homepage

### **Use case 16: Manage Open Requests**

Primary Actor : Admin

Required Conditions : Internet Connectivity, User must be logged in as Admin

Success Scenario :

- Admin enters the open requests page
- Admin processes a request and if the reason seems satisfactory and if sufficient open requests for that paper already exists, can open the paper for public access
- The manuscript then is visible fully for all readers

### **3.1.6 Use cases for Reviewers**

#### **Use case 17: Apply for reviewer positions**

Primary Actor : Reviewers

Required Conditions : Internet Connectivity, User must be logged in

Success Scenario :

- Reviewer enters the reviewer application form
- Reviewers gets prompted to enter their details including their skill sets and previous experiences
- Their applications get submitted

Exceptions :

- Reviewers fail to enter any mandatory field in the form
- Reviewers will be prompted to enter them again

#### **Use case 18: Review a manuscript**

Primary Actor : Reviewers

Required Conditions: Internet Connectivity, User must be logged in, Reviewer application must be accepted for the particular user

Success Scenario :

- Reviewer enters the assigned manuscripts page
- Reviewers get to see all the manuscripts assigned to him along with additional data for each of them as submitted by the author



- Reviewer reads the manuscript and either accepts it or rejects it
- Reviewer also gives comments in either case and submits his review

Exceptions :

- Reviewer fails to give feedback or choice for a given manuscript
- Reviewer will be prompted to enter them again

### **3.1.7 Use cases for Readers**

#### **Use case 19: Read Manuscripts**

Primary Actor : Reader

Required Conditions : Internet Connectivity, User must be logged in

Success Scenario :

- Reader enters their home page
- Reader sees all the manuscripts accepted in conferences
- Reader clicks on manuscripts and is taken to its specific page containing the author and citations
- Reader can read the whole paper if it is open. Else he gets only a preview

#### **Use case 20: Request to Open papers**

Primary Actor : Reader

Required Conditions : Internet Connectivity, User must be logged in

Success Scenario :

- Reader sees a closed paper in their home page
- Reader can see a preview of the paper and if they are interested to read further, he can request to open the paper. He can attach a reason for the same
- Once Admin accepts the request, he can access the whole paper

Exceptions :

- User enters Invalid credentials
- User will be prompted to enter them again

## **3.2 Performance Requirements**

### **1. User experience:**

- The website should provide a seamless & intuitive experience. It should have easy navigation, crystal-clear instructions & helpful feedback. The website should be able to meet the requirements of various actors such as authors, reviewers, administrators & general open access.

### **2. Authors Perspective:**



- Uploading of the manuscript should be fast & it should be displayed on the portal as soon as he uploads.
- The format checking and any other plagiarism checking should not take more time & should be done in real-time. If there is any plagiarism found, the author should be immediately notified about it with a detailed report about the issue.
- The author should be able to get feedback from the reviewer as soon as the reviewer sends it. There shouldn't be any delay.
- The profile page of the author should be dynamically updated if there is any change in information about the author such as rewards earned, papers acceptance/rejection, etc.

### 3. Reviewers Perspective:

- The final status of the manuscripts reviewed by the reviewer should be dynamically updated on the reviewer profile page.
- The feedback sent by the reviewer should immediately sent to the author without fail.

### 4. Administrators Perspective:

- Admins should be able to check the reviewers & assign them the relevant manuscripts in real-time.

### 5. Open Access user's Perspective:

- Manuscripts that are being accepted in conferences should be updated in the portal as soon as possible.

## 3.3 Design Constraints

### 1. Fault Tolerance:

- Data should not be lost or corrupted at any cost.
- Assignment of an irrelevant reviewer to the manuscript should be avoided.
- The final status of manuscripts submitted by the reviewers should be done carefully. Because it affects the database.

### 2. Availability:

- The portal being awake 99% is very good. But more than that will not be cost-effective.

### 3. Security:

- User credentials especially the reviewer credentials shouldn't be shared with anyone.
- The database should be protected from unauthorized access.



### 3.4 External Interface Requirements

The Publication Management System is a web application that is compatible with all the latest browsers. The home page consists of login/signup for various actors such as authors, reviewers, and general open access. Using this any actor can log in ( if they already have an account ) or sign up ( If they don't have any).

#### 1. Author:

- After successful login, we can see the previous manuscript submission of the authors on the webpage. There will be a status displayed along with the date in the portal for every submission.
- There is a button for the submission of the new manuscript that the author is willing to submit.

#### 2. Reviewer:

- After the completion of login, the Reviewer can view the manuscripts that are being assigned to them.
- Then the reviewer can review the papers & will submit the feedback for them.

#### 3. General Open Access:

- Users who want to just view the research papers can click the start browsing button on the home page which will direct them to login & then they can view the manuscripts that are being accepted in particular conference.

#### 4. Admin:

- Admin's login will be separate from the other actors. Once login is done, Admin can control the conference settings.
- He can see reviewers applied for the conferences & can also see the papers that are being submitted to the conferences.

## 4 Future Extensions

- Plagiarism checking of the manuscript submitted by the author using Machine learning models.
- Machine learning-powered recommendations for reviewer assignment and manuscript matching.
- Spell check to the reviewer for easy detection of spelling mistakes in the manuscript.
- Advanced analytics and reporting tools for tracking.

## 5 Appendix



Figure 1: Website Home Page

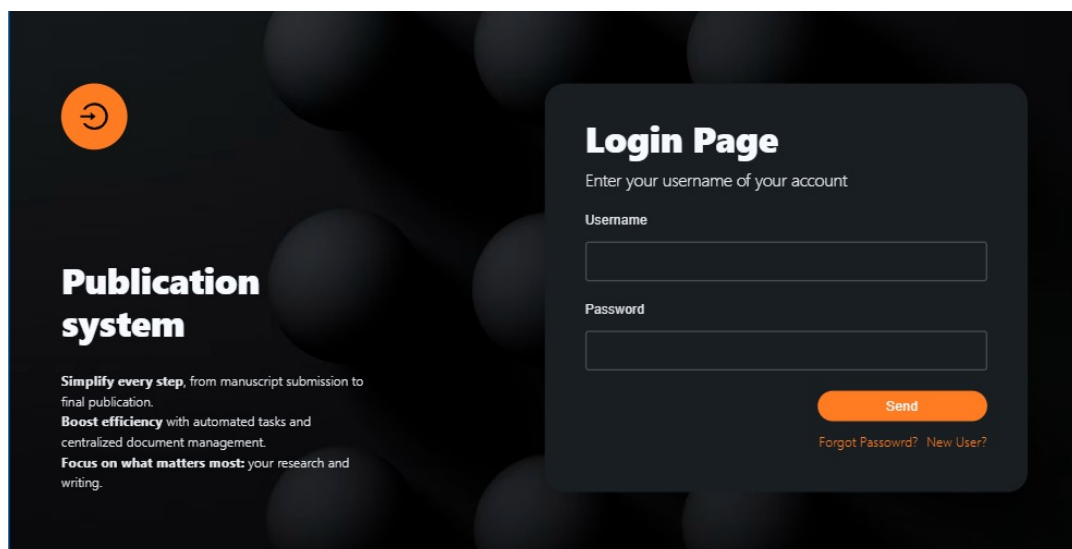


Figure 2: Login page for various actors



The screenshot shows the 'Author Home Page' with a dark blue header and a light blue navigation bar. The navigation bar includes a 'Home' button, a 'Submit New' button, and a 'Profile' button. The main content area is titled 'YOUR SUBMISSIONS' and displays a table of four submissions. Each submission row includes a date, a title, a description, a conference name, and a status. An orange 'VIEW ALL >>' button is located at the bottom of the table.

| Date          | Title   | Description | Conference   | Status               |
|---------------|---------|-------------|--------------|----------------------|
| SAT 15/7/2023 | TITLE 1 | Description | Conference 1 | Pending....          |
| SAT 24/7/2023 | TITLE 2 | Description | Conference 2 | Rejected             |
| SAT 30/8/2023 | TITLE 3 | Description | Conference 3 | 1 Accepts, 2 Rejects |
| SAT 04/9/2023 | TITLE 4 | Description | Conference 2 | Accepted             |

VIEW ALL >>

Figure 3: Author Home Page

The screenshot shows the 'Reviewer Home Page' with a dark blue header and a light blue navigation bar. The navigation bar includes a 'Home' button, an 'Apply For Conference' button, and a 'Profile' button. The main content area is titled 'Assigned Manuscripts' and displays a table of four manuscripts. Each manuscript row includes a date, a title, a description, a conference name, and a status. An orange 'VIEW ALL >>' button is located at the bottom of the table.

| Date          | Title   | Description | Conference   | Status      |
|---------------|---------|-------------|--------------|-------------|
| SAT 15/7/2023 | TITLE 1 | Description | Conference 1 | Done        |
| SAT 24/7/2023 | TITLE 2 | Description | Conference 2 | Pending.... |
| SAT 30/8/2023 | TITLE 3 | Description | Conference 3 | Pending.... |
| SAT 04/9/2023 | TITLE 4 | Description | Conference 2 | Done        |

VIEW ALL >>

Figure 4: Reviewer Home Page

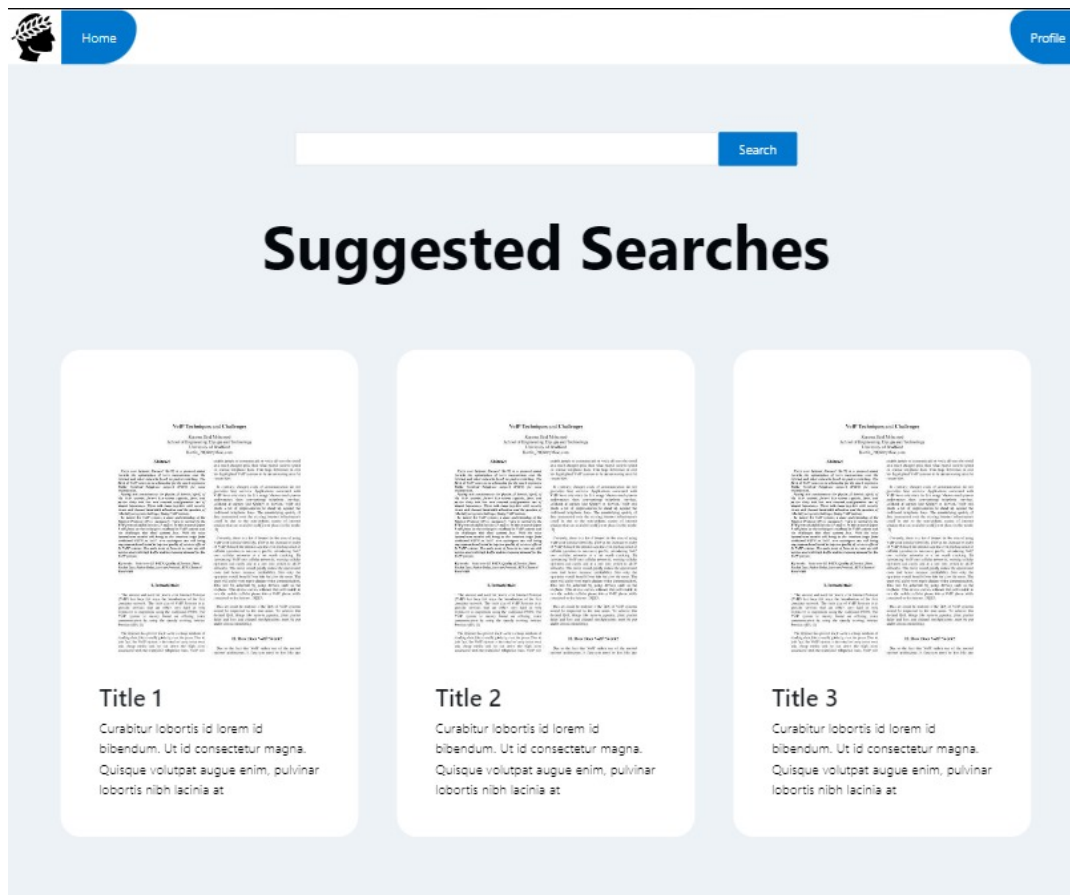


Figure 5: Open Access page for viewing the manuscripts

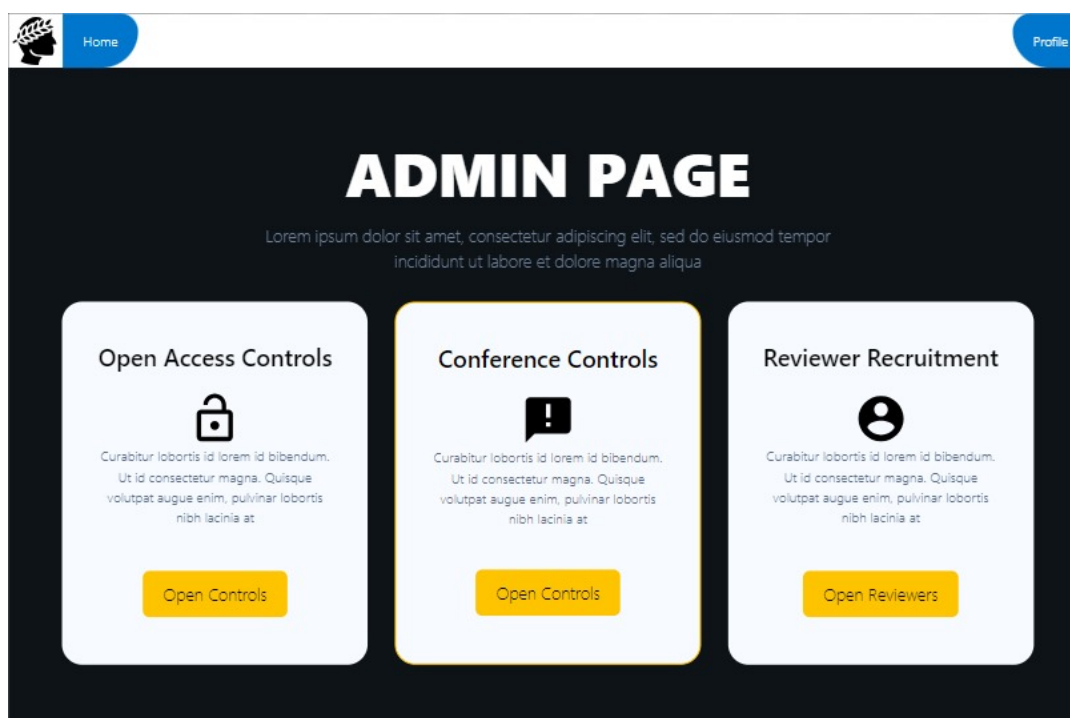


Figure 6: Admin Home Page