**DESCRIPTION**

The **“Research and Publication Management System of the University of Burdwan”** is a web-based platform developed with the aim of managing research-related data in a more organized and digital way. The system is designed to serve as a centralized portal that maintains and displays essential information related to research scholars, their publications, and academic progress.

This platform allows users to view detailed profiles of research scholars, including their ongoing and completed research work, published papers, and academic contributions. One of the key features of the system is the automatic calculation of **API (Academic Performance Indicator) scores** for each research scholar, based on their research output and publication records. This helps to track academic performance in a transparent and consistent way.

The website is developed using **HTML, CSS, and JavaScript** for the front-end interface, ensuring a responsive and user-friendly design. The back-end functionalities are built using both **Django** and **Flask** frameworks, which provide flexibility in handling different components of the system. For data storage and retrieval, **MongoDB** is used as the primary database, which is well-suited for handling large, complex, and semi-structured data like publication records.

**Admin-level controls** are also included which allows only authorized users to verify scholars, review publication entries, and manage user access. This ensures the accuracy and security of the system.

**FEATURES**

The key features are -

* User-friendly dashboard for researchers and administrators
* Real-time display of research scholars' data and publications
* Automated API score calculation
* Secure login and data access system
* Integration of Django and Flask for back-end processing
* Efficient data handling using MongoDB

This project aims to support the research and publication management system of The University of Burdwan by offering a transparent, accessible, and efficient platform for managing research-related data. It reduces manual effort, improves data accuracy, and helps in performance tracking of scholars, ultimately contributing to the academic growth of the university.

**SCOPE OF THE PROJECT**

This project is about making a website for the University of Burdwan to keep track of research scholars and their works.

* **What the website will do:**
* Let research scholars create accounts and update their research information.
* Allow scholars to upload their research papers and publications.
* Help faculty members to check and manage these records.
* Make it easy to search and find research work.
* **What the website will NOT do:**.
* There won’t be a mobile app, just the website.
* It won’t have very advanced security features.

**ADVANCED SCOPE**

While the current version of the system covers the basic requirements for managing research data, there is great potential to add more advanced features in the future. These features would make the system smarter, more secure, and more useful for a wider range of users. Some ideas for future improvements are:

* **Smart Suggestions:**

The system can suggest journals or conferences based on the scholar’s research area using AI.

* **Graphical Dashboard:**

Add charts and graphs to show research trends, number of publications, or department-wise data.

* **More User Roles:**

Faculty members, HODs, or department staff can be given separate logins with specific permissions.

* **Certificate Generation:**

The system can generate digital certificates when a thesis or publication is approved.

* **Link with Other University Systems:**

Connect the system with the university library or student portal to share data easily.

* **Email and Notification Alerts:**

Automatic emails or messages can be sent to users when their work is approved or when there are deadlines.

* **Cloud Storage:**

Store uploaded files securely in the cloud so they are safe and backed up.

* **Multiple Language Support:**

The system can be made available in Bengali or Hindi for easier use by all students.

**USERS**

This research and publication management system is designed for different types of users, each with specific responsibilities and access levels. The main categories of users are described below:

### ****Research Scholars****

* Research scholars are the primary users of this system.
* They can **register and log in** to their personal accounts.
* They have access to **create and update their research profiles**.
* They can **upload details about their research work, publications, and thesis.**
* They can also **view and manage their own data** whenever needed.

### ****Faculty Members / Supervisors****

* Faculty members can monitor the work of research scholars under their supervision.
* They are allowed to **review submitted work** or **track the scholar’s progress**.

### ****Administrative Users****

* Admins are responsible for managing the whole system.
* They can **view and manage all user accounts**, including approving or rejecting uploads.
* Admins can also **generate reports** and maintain the accuracy of the data.
* They ensure the system runs smoothly and securely.

**CONSTRAINTS:**

While developing the Research and Publication Management System, the following constraints were considered:

### ****Time Constraint****

The project had to be completed within a limited time frame, which affected the number of features that could be developed and tested.

### ****Limited Resources****

The project was developed by a small team with limited access to professional tools, testing environments.

### ****Technical Limitations****

The system is built using standard web technologies (like HTML, CSS, JavaScript, Django, and MongoDB), which may limit advanced features like real-time data processing or large-scale performance.

The feature of plagiarism detection was not included due to complexity.

### ****Security Constraints****

Basic security measures (like login authentication and input validation) were implemented, but due to time and technical limitations, advanced security (such as encryption or multi-factor authentication) was not added.

### ****Deployment Environment****

The system is designed to run on standard web servers, and deployment depends on the availability of university-hosted or free hosting platforms.

### ****User Training and Adoption****

Users (especially admin and scholars) may need basic training to use the system properly.

Some users may prefer offline/manual processes, which could slow down adoption of the system.