

Helping Educators to Lessen Paper Work (H.E.L.P)

Maseera Anwar Shaikh¹, Harsha Kisan Jagadale², Sana Bashir Ahmed Karol³, Shabina Sayed⁴

^{1,2,3}*B.E Students, Department of Information Technology, M.H.Saboo Siddik College of Engineering, Mumbai University, Mumbai, India.*

⁴*Assistant Professor, Department of Information Technology, M.H.Saboo Siddik College of Engineering, Mumbai University, Mumbai, India*

Abstract

To solve the problem of a massive increase in the application to higher education; the Government initiated a program to effectivise the application and admission system. But this admission process that is currently in use failed to overcome all the disadvantages of local admission control. This paper proposes a web application that will help the admission process to be completely automated, paperless and centralized. The proposed application uses the concept of UID (Aadhar card) system [4] that is widely used to uniquely identify each person living in India. In the same way each student in this system is uniquely identified. This application of admission process is centralized [3], so each applicant will have only one admission place.

Keywords- OCR, Aadhar system, Centralized networking system, Online Admission process

1. Introduction

Indian universities and colleges had a system of local admission control. This system was tedious since each applicant had to apply to each institution and it was difficult to manage declines from students who were accepted to other institutions. Particularly in 1990 there was a massive increase in the application to higher education and this resulted in an immense workload on the local administrators.

To solve this problem, the Government initiated a program to effectivise the application and admission system. The entire admission process was centralized. But this admission process that is currently in use failed to overcome all the disadvantages of local admission

control. Helping educators to lessen paper work (H.E.L.P) is an application that aims at developing an online admission application that not only overcomes the issues of present online admission system but also includes the advantages of UID (Aadhar card) system. In this proposed system each student/ applicant will be provided with a unique identification number [2]. Using this unique identification number applicant's educational details can be extracted. The key feature of this proposed system is to make admission process a paperless and a completely automated system.

1.1. Study of existing system

In present system [6] students have to manually fill the online admission form and have to carry their original documents along with its Xerox copies to the allotted institute to get them verified. The verification process is complete manual work. The verified documents are then required to be submitted. There is a chance of manual error.

As the strength of the students is increasing at a tremendous speed, manual verification of students documents is very difficult. Hence, the need for Helping Educators to Lessen Paper work (H.E.L.P) application is inevitable. In case of manual verification of documents a lot of time and manpower is needed. In this application almost all work is computerized. So the accuracy is maintained. Maintaining backup is very easy. It can do verification within few minutes

1.1.1. Flaws in present system

Long Queues: Students in thousands have to carry their original documents and its Xerox copies along with the printable admission form to institute/university and queue up to get their documents verified.

Time consuming As verification of documents is a sensitive and tedious work, so verifier's takes time in

doing their job, resulting in annoyed parents and students

Management of documents: After verifying the Xerox copy of their documents, students have to submit the Xerox copy of the document and their admission forms

As large number of students apply for admission every year, managing and verifying the documents of such a large number of students becomes a big problem.

Requires human involvement: As the strength of the students is increasing at a tremendous speed, a large number of human resources are required.

Due to increase in human resources cost is increased.

Inaccuracy and non reliability: The process is inaccurate and non reliable due to human involvement.

1.1.2. FEATURES OF PROPOSED SYSTEM.

The aim of the proposed system is to address the limitations of the current system. The requirements for the system have been gathered from the defects recorded in the past and also based on the feedback from users of previous metrics tools. Following are the objectives of the proposed system:

No long queues : Applicants won't need to queue up to get their documents verified.

Man Power Saving : Institutes will not need to assign additional security to manage huge crowd.

Reduces paper work : Students will no longer require carrying their documents to the institute/ university to get it verified.

Institutes no longer require managing the submitted documents.

Reduces human involvement : Releases institutes man power resources.

Institute/ university will no longer require deputing personnel for verifying and managing the documents.

Accurate and Reliable: The process is very accurate and reliable due to no human involvement.

Generation of unique identification number: Every student/ applicant is provided with a unique identification number for uniquely identifying a user.

2. Feasibility Study

Feasibility study gives the top management the economic justification for the new system. This is an important input to the management, because very often the top management does not like to get confounded by the various technicalities that bound to be associated with a project of this kind. A simple economic analysis that gives the actual comparison of costs and benefits is much more meaningful in such cases. The proposed application is economically feasible; it will only require a single operator to operate the system, who is responsible for entering the data into the database via a user interface provided to him. Since it requires only a single person to operate the whole system thus reduces the cost to operate the system.

In the system, the universities are most satisfied by economic feasibility, because, if the organization implements this system, it need not require to appoint any additional labour for verifying the user's document which will reduce manual errors as well as it will be saving lot of time.

3. Design and block diagram

The significance of this research project is in the recognizing and extracting of essential information from exam mark sheets such as the students year of passing, seat number, certificate number and marks scored and standard in which they have studied.

This system will have a profound effect in automating the education process and making the process faster.

The main building blocks of H.E.L.P. are shown in Fig1 and the design of the proposed system is Figure2.

3.1. Block diagram

The main building block of H.E.L.P. application is as shown in the figure 1. The Figure1 gives an entire overview of the proposed system. It shows how the student/applicant uses H.E.L.P. application to carry out their admission and verification process in easier and convenient way.

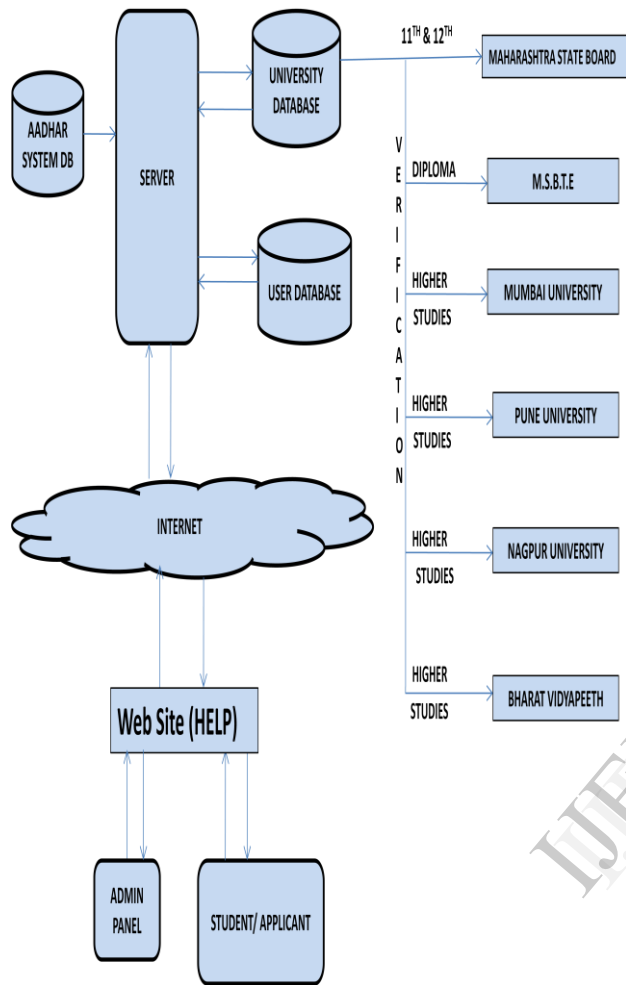


Figure 1. Block diagram

As shown in the Figure. 1 H.E.L.P. is a centralized system with a centralized server [3], due to which each applicant will have only one admission location. The proposed application goes through different stages starting from applicant registration, generation of unique identification number for the applicant, verification of applicant’s document and applying for the admission.

The proposed application has two types of accessing modes, administrator and user. Student management system is managed by an administrator. It is the job of the administrator to admit and monitor the whole process. Student/ applicant performs registration, login, upload documents and apply for the admission process.

At server side there is a user database that consists of information of the registered candidate. At the

registration phase user is validated using its Aadhar card number. The student’s marks on the mark sheets are captured using an OCR software [6] and verified using university database.

3.2. Flow chart

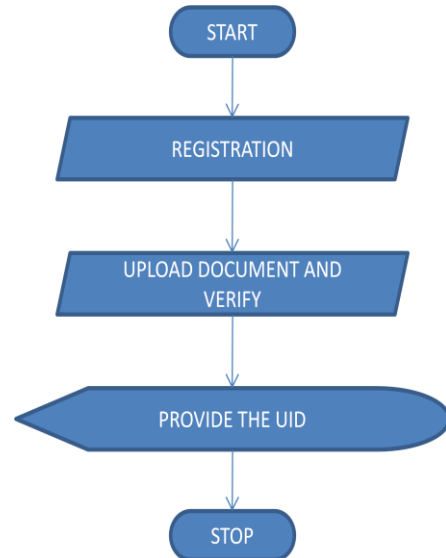


Figure 2. Flow chart

The entire system is divided into four stages, they are

Registration: Applicants will carry out their own registration, providing the system with a way to associate a user to their application. A user is validated using Aadhar card number. Giving each student a specific ID will also allow a user to apply to a number of courses, while giving the system a way to prevent unnecessary duplication of applications. Requiring a registration process will also add greater security to the system

Login: In the login phase the user provides its authentication details. If the authenticated details are correct than the user is directed to its profile where further admission and verification process is carried out. If user fails to provide correct authentication details in three attempts then captcha is provided to the user to prevent any unauthorized access to the user’s profile.

Documents uploading and verification: This stage is a very important stage and a key feature of this application. In uploading stage applicant is asked to

upload the scanned copy of their mark sheet. After uploading the system captures the required field from the uploaded document which is then used for the verification of the student's mark. The verification is carried out using university database present at server .

Admission process: This stage is followed after verification phase in this phase entire admission of the applicant is carried out.

4. Conclusion and Future Scope

The HELP application has been studied & the design is ready for its further implementation .After implementation it will be tested in different fields of education to check for its efficiency and to prove that whether the HELP application is really a help to the educators or not.

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