# Smart Paper Generator

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**Abstract:** - Smart paper generator is a system that is proposed to reduce the burden of the all teachers. Main burden of the teachers is the generation of the question paper. There will be various examinations per year for each class, and generating question papers for all these exams are really a time consuming, and difficult task for the teachers. Thus most of the time there will be repetitions of the questions in the question paper and also the quality of the question paper that is generated is also reduced In the smart paper generator teachers only need to upload the question bank of each subject. They can do this at any time. The question paper will be generated based on the question bank. This process is done automatically and is done with the help of the randomization algorithm. This proposed system is really helpful for the teachers of all the institutions.

**Key Words:** — *Automatic question paper generation, randomization algorithm.*

## I. INTRODUCTION

Examination plays an important role in understanding the caliber of the students. All the institutions use the method of the examination in order to check the content knowledge among the students. Thus, it is very important to maintain the quality of the question paper that is generated. Each of the question paper should consist of the questions with good quality and repetition of the questions in the question paper must be avoided. Today we are following the manual question paper generation system. The problem with this methodology is that there are chances of the repetition of the questions. Due to the lot of time taken by the teachers in order to generate the question paper, most of the teachers choose the questions from the previous year question paper in their question paper. This really reduces the quality of the question paper that is generated and now-a-days generating question paper is really burden for the teachers. Therefore, we really need a solution to this problem. The Smart Paper Generator has been developed to override the problems prevailing in the practicing manual system. This software is supported to eliminate and to reduce the difficulties faced by the existing system. Moreover, this technique is meant for the actual need of the corporate to hold out operations during a smooth and effective manner. Smart Paper Generator is such a solution where teachers can generate the question paper with limited amount of time and is done in the automatic manner. Here teacher need to upload the question bank for each of the subject and based on the question bank that they are generated the question paper will be generated by the randomization algorithm.

## II. LITERATURE SURVEY

In [1] the question paper generator system for MCQ re explained. In this descriptive type, questions cannot be generated. In [2] total number of questions that can be uploaded in to the question paper is limited. In [3] it is possible to generate question papers only by the admin. These disadvantages are also seen in [4] and [5] also. That is if the question paper can be generated then it will cause a huge burden for the admin. Admin will be the head of the institution or the head of the department. As we know when we consider a college, there are various departments and various classes. Therefore, it is very difficult for a single person to generate the question paper. The proposed system completely overcomes the disadvantage where the teachers individually can upload the questions and can generate the question paper.

## III. PROPOSED MODEL

### A. Methodology

The Smart Paper Generator is developed and built up using PHP programming language. The proposed system provide option to add courses, questions and patterns of question papers. It then executes the algorithm on the provided question set on the database and generates the question paper in PDF format. The main objective of the Smart Paper Generator is to generate the question paper with a limited amount of time. The functionalities that are provided to the faculty members are:

- Add the course
- Add the question bank
- Generate the question paper
- Print the question paper

### B. Module Description

The various modules that are present in the system are

- Login module
- User module
- Course module
- Question bank module
- Question paper generation module

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Login Module is mainly used for login. The user login to the main system from this module. The user need to provide the registered user name and the password in order to enter to the Smart Paper Generator, i.e. the Login module presents site visitors with a form with username and password fields. If the user enters a valid username/password combination, they will be granted access to the particular system. After the login, the user will also be able to see the log out button. The system can be used by both the admin and the individual teachers which is defined to be the major advantage of the system,

By the user module user can register, log in to the system, and log out from the system. By providing the login option for each user, the privacy of the users will be maintained and there will be less chance of paper leakage through a third party. The new user can be added here. On clicking the sign up, the system will move to the new page, which will allow the user to register. The user need to provide the details like name, email address, password, etc. The new user details will be saved to the database.

In Question Bank Module the faculties can add the questions in the form of question bank for the various subjects. The question paper will be generated based on the question bank that is uploaded by the teachers. This makes the process of question bank generation easier.

In Course Module faculties can add the courses in this module. The various courses that the teacher handles can be added by using 'Add Course' option. Thus, teachers can handle multiple subjects at a time. Here the teachers can add the courses or the subject that she is taking for the different classes.

In Question Paper Generation Module, the question paper is generated by using the question bank that is uploaded by teachers. The teachers as per their requirements can download the question paper. Here the required question paper for the teacher is created with the limited amount of time. This makes the task of the question paper generation simpler for the teachers. If he is a new user then he wants to register by providing the required details in the register page. After login, the faculty needs to add the course that he is handling for a particular class. After adding the course he need to add the question bank for the subject that he added to the course. After adding the questions question paper can be created by the faculty. For creating the question paper he need to provide the course, total number of questions to be included in the question paper and then click generate. Now question paper will get generated. After generating the question paper the question paper cam be printed by providing the unique id of the generated question paper. Thus here the question paper for a particular subject is created within a limited amount of time. Fig 1. Shows the architecture of the Smart Paper Generator.
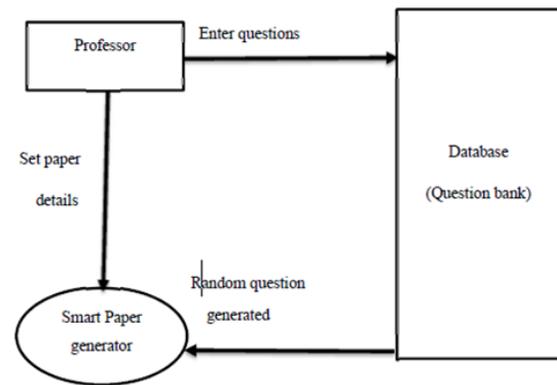


Fig.1. System Architecture

## IV. RESULTS AND DISCUSSION

Smart Paper Generator is the smart way of generating the question paper. In this, project teachers need to upload only the question bank. They can do third process at any time. Whenever they need a question paper, they just need to click on generate question paper in order to generate question paper. Here once the question paper is generated it will be stored in the database along with an id that is generated by the database. The teachers need to download the question paper by using that id. Instead of using the id generated by the database, we can also provide the id according to our need like, email id, phone number etc. Generated question paper will be available in the pdf format and we can directly print them according to the requirement.

## V. CONCLUSION AND FUTURE SCOPE

Student module can be added to this system in the future. Thus, the students can directly access the question bank from the system. In future, the teachers can upload the previous year question papers and their answer keys, which will be very helpful for the students. Along with creating the question, paper online examinations can also be conducted by the teachers in order to measure the regular performance of the students. Various additional modules can be added to the current system, making it even versatile in the way in which the system can accept data that is to be corrected. One example is addition of a module that would accept voice data from microphone. Additionally, a module can be added to accept answers from an image source, by using image to text conversion algorithms, entire papers can be scanned and can be corrected. The system will successfully be able to authenticate both admin and professor based on username and password. The system will successfully record all the information provided by the admin for the paper he want to generate. All the previously appeared questions and the number of times they have appeared will also be stored in the

database of the system. Once a paper is generated, it is stored in the question paper bank. The resulting system will make process of question paper generation easy and be able to generate different types of question papers in limited amount of time. The GUI should be user friendly and no question should be repeated in the generated paper. A user friendly GUI with the stated functional requirements intends to save professor's time and efforts and to automate the entire process of question paper generation.

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