Polytechnic Automation & Scheduling System-QR based Attendance System (Teachers & Students)-Online Quiz-Online Assignment-Panel to Upload Time Table

Nihla Qureshi
Computer Engineering,
M.H Saboo Siddik PolythenicMumbai, India

Maseera Baig
Computer Engineering,
M.H Saboo Siddik PolythenicMumbai, India

Munira Ansari
Computer Engineering,
M.H Saboo Siddik Polythenic Mumbai, India

Taizeen Sayed
Computer Engineering,
M.H Saboo Siddik Polythenic Mumbai, India

Abstract— **Polytechnic management is becoming a very essential component in education in this modern day age. With the help of Polytechnic Automation & Scheduling System we can gather all the useful information needed to the management in few clicks. Polytechnic Automation & Scheduling System consists of different modules such as student, faculty, admin etc. Our main purpose is to create a software which will manage the working of these different modules. The interconnectivity among modules reduces the time to perform different operational task. Polytechnic Automation & Scheduling System the software which gathers the basic information of student automatically. This software manages the information about various users including faculties, information about subjects offered in various semesters; marks obtained by Students in different semesters and then generate a final report of each and every student. QR based attendance management, online quiz, online assignment submission, panel to upload automated timetable which also be included in this system. We have used bootstrap which increases the responsiveness of the system if in future we want to implement this system as the web based application or mobile application than because of bootstrap it will be easy and automatically screen will resolve according to that. The objective of our system is to reduce the paper work and to eliminate manual processes and to save significant staff time.**

Keywords— Polytechnic Automation & Scheduling System, Online Quiz, Online Assignment, QR based attendance system, panel to upload timetable.

I. INTRODUCTION

In today"s regular life, there are many problems of common technology and security for a few applications and there is an important application of automatic control in many applications. So we dedicate this research project to the college where they can solve the exam attendance problem, online quiz online assignment and scheduled timetables. These days there are different methods used for the attendance system applications that are used in schools and higher institutions. Among the methods used the traditional way of using paper and pen that looks non-

productive and boring, which takes the time of the lecturer and the time of the student special during examination. In this project, will use the QR code, the proposed attendance system is developed. By scanning, the QR code using mobile and then it well be transformed to the application to do further process. The system provides time, ease of use and data preservation for a long time. Main concept behind smart attendance system is to take the attendance of student and teachers in any college. QR code may be generated to log the attendance during the examination. Solving a polytechnic timetabling problem manually often requires a lot of time and resources in terms of man hours and losses due to clashes and cancellations. The focus of this study is the development of an automated timetabling system for scheduling lectures and examinations. Online quiz contents providers to focus on creating assessment questions and focusing on exam"s feedback delivery to students. In this project we present techniques that are pertinent to the elements of assessment process: answers submission, computerized grading and feedback after submission. It is common nowadays to use software to facilitate and add value to the process of assignments submission, facilitated by the ubiquity of Internet access, and the relative affordability of computing equipment. Public domain and commercial course management tools available include assignment submission and automated assessment as part of the software functionality.

II. EXISTING SYSTEM

In the existing system all the works are done manually. Students" attendance in university are taken by instructors during each class is a time consuming process especially when classes are big. Some faculty policies require this task to be performed by the instructor in each lecture. In other words, out of the total hours that are assigned to a given course, which is typically forty-five hours per semester, up to eight hours may be lost to perform this process that

usually takes around ten minutes per lecture.

In case of examination more time are require for creating question paper. Time to check right and wrong answers, Manually Calculating Marks. Human erroneousness. Limitation of Number of student can give papers at a Time. Require Teacher to monitor examination center.

In traditional system of assignments submission the student should submit a hard copy of the assignment in a fixed due date either in class or at the lecturer office, this process is a very time and effort consuming operation, and it also needs extra cost. In the other side the lecturer must preserve a space to arrange all assignments, and it will take a huge space every semester, this process require the lecturer to spend extra time to organize each assignment andquizzes with its group.

The manual lecture timetable scheduling demands considerable time and efforts. The lecture-timetable scheduling is a Constraint satisfaction problem in which we find a solution that satisfies the given set of constraints. A college timetable is a temporal arrangement of a set of lectures and classrooms in which all given constraints are satisfied. Creating such timetables manually is complex and time consuming process

III.   PROBLEM STATEMENT

In today‟s regular life, there are many problems of common technology and security for a few applications and there is an important application of automatic control in many applications. So we dedicate this research project to the college where they can solve the exam attendance problem, online quiz online assignment and scheduled timetables.

During the examination time, when the student start the exams the lecture goes to the students one by one to check his information in id card and his signature which causes confusion, tension, delay in answering question and anxiety of the student. This proposes a system that is based on a QR code which is being displayed for student during or at the beginning of each lecture. The students will need to scan the code in order to confirm their attendance. The paper explains high-level implementation details of the proposed system. It also discusses how the system verifies student identity to eliminate false registration. In this modern world, science and technology change everything and make human life easier than before. QR code attendance is one such modern field implied into the world of education. Such type of application is very useful in school as well as in college for daily attendance.

Assignment management involves many tasks starting with assignment gathering, date stamping, and redistribution to tutor for marking, collation of results, and return it to students. Online assignment submission is easy and not time consuming this functionalities would be useful to both students as well as for lectures and also to the institute.
Since the examination traditional have many drawbacks

such as time consuming, difficulty of analysing the test manually, results are not accurate since calculations is done manually, the chance of losing exam's result is higher in current systems. Thus Online examination system saves the exams information in a database, and this make it an easier way to give exam teachers can add theirs exams rules, and student can give exam in a totally automated system.

Creating timetables manually is complex and time consuming process. By automating this process with computer assisted timetable generator can save a lot of precious time of administrators who are involved in creatingand managing course timetables.

IV.   PROPOSED SYTEM

In Our System we are providing role based accessed rights to different users, many logins are created for the user based on their access rights. By this proposed system all the Class test marks, Attendance list, timetable, online quiz, upload assignment, panel to upload timetable etc. can be viewed from single system at any time. Thus it will reduce the time and preserves the workload and each student can able to see their report by just login profile. All the details regarding exam cell marks of each student are kept in single System with additional security so that the only authorized person can access that system and notice related to exams for students are directly put to the student portal.

V.   LITERATURE REVIEW

Many researchers have shown great interest in the area of polytechnic/college scheduling and timetabling. A wide variety of studies, from the field of operations research and artificial intelligence, have addressed the spectrum of university/polytechnic timetabling problems. Evolutionary techniques have been applied to solve the timetable scheduling problem. Methodologies like Genetic Algorithms (GAs) and Evolutionary Algorithms (EAs) have been used with mixed success. Researchers have employed many different approaches over the years in an attempt to generate
„optimal‟ timetabling solutions subject to a list of constraints. According to Sunil Jadhav, Akash Gagare, Pooja Gunjal, and Prof. VidyaJagtap (2018), the common way of getting attendance is manually. Usually the student has to sign the attendance list in the class/lab during the examination In this approach students cannot cheat by signing for other student who is not present for examination, so the researcher suggesting semi-automatic system to eliminate all these problem, the design method of portable student attendance system based on QR code using scanner so we are trying to solve the attendance control problem using QR code system in this paper. This software of QR code system attend student improves the time it takes manual attendance and human errors we are implementing a system that will hide everyone student information (ID card) within the QR code, so when the student scans the

QR code at that time, the date the QR code scanning time will be stored in the database. QR based attendances also solve problem for teachers attendances also. Many different researches have focused on the subject of an online quiz system these work can be represented as following:

SIETTE: Guzman and Conejo (2005) proposed an online examination system called System of Intelligent Evaluation using Tests for Tele-education (SIETTE).

EMS :Rashad Et. Al. (2010) proposed a web-based online examination system called Exam Management System (EMS).

ArvindSingh,NirajShirke,KiranShette 2011:The project evaluates the examiners by using the online examination system concept.

CBTS :Fagbola et. al. (2013) developed a Computer Based Test System (CBTS).

There are many systems that give the ability to submit an assignment online, in an easy method for the student and the lecturer who will receive and evaluate the student work; also it gives the ability for the student to submit the assignment from different locations served by internet. The proposed model is based on identifying the user functionality that must exist in the OAS. The expected result from this model is to show the result of function test from the teacher side in e- learning process.
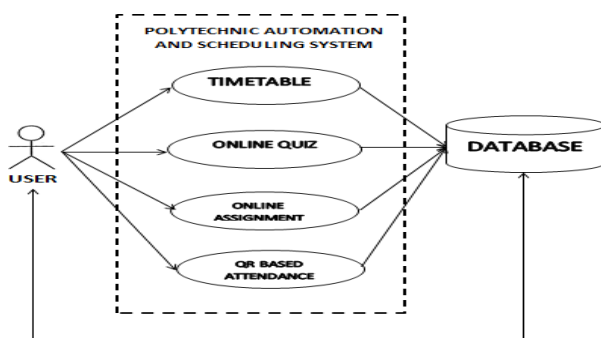
VI. METHODOLOGY

Nowadays, it is hard to find a student who has never used technology in his life. Technology has become one of the most important nerves of civilized life. Although most tech users use it for entertainment and entertainment or to communicate with friends, there are many useful and practical areas they may not know about.

The details of methodology are given below:

- Develop a QR code generator that take the attendance with respect to the specific subject and generate the student attendance sheet as per attendance details.
- Develop a panel to upload automated time table relatedto regular lectures and exams.
- Develop a panel to upload online assignments forstudents and teachers.
- Develop a panel for teachers to upload onlinequiz/examination.

VII. BLOCK DIAGRAM

VIII. SYSTEM ARCHITECTURE

Our system is designed using html, java-script, and SQL server. Our System manages the three most important module of any college management system which is Student, Faculty and Admin. The system is given a role based access every user is having username and password which is used for accessing the system.

a. Admin: Admin can log-in the system by entering valid Id and Password. After log-in admin can view the pages .and also he can perform the work.

b. Teacher: Teachers can scan QR code for taking attendance they can view all student details and also

attendance list and defaulter list. They can upload assignments, upload quiz/examination, upload timetable related to lectures and exams.

c. Student: Student can scan QR code for taking attendance, Student can view defaulter list after end of the month. They can upload assignments, perform quiz/examination, view timetable related to lectures and exams.

IX. CONCLUSION

Polytechnic Automation & Scheduling System earlier there was no such system in the polytechnic that would both have informative and would do all the processes required for the institute to function. We tried to create a system that is both informative and functional at the same time. We also added some additional functions i.e upload automated time- table, perform online quiz, submit online assignment and also QR based attendance system. All these functionalities would be useful to both students as well as for lectures and also to the institute.

REFERENCES

[1] HAMAD, Hassan, Fdhil N, "ONLINE ASSIGNMENT SUBMISSION SYSTEM", Institute of Electrical and Electronics Engineers (IEEE), 2017

[2] Xiong Wei, Anupam Manori, Nandgopal Devnath, Nitin Pasi, and Vivek Kumar5, "QR Code Based Smart Attendance System Institute of Electrical and Electronics Engineers (IEEE), 2017

[3] Syed Hasan "Online Assignment Submission & Feedback System", Institute of Electrical and Electronics Engineers (IEEE), 2016

[4] Justin Rajasekaran, "Effect of implementing 'QR Code Attendance System' during Examination in SHCT-Limits and Possibilities", Institute of Electrical and Electronics Engineers (IEEE), 2018

[5] Mohammed Aldasht, Safa Adi, Mohammad Abu Qbeitah, "University Course Scheduling Using Evolutionary Algorithms", Institute of Electrical and Electronics Engineers (IEEE), 2018

[6] Anisha Jain, Ganapathy S C Aiyer, Harshita Goel, Rishabh Bhandari Student, "A Literature Review on Timetable generation algorithms based on Genetic Algorithm and Heuristic approach", Institute of Electrical and Electronics Engineers (IEEE), 2015

[7] Firas A. Abdullatif, Muna R. Hameed, "Online Examination System",

Institute of Electrical and Electronics Engineers (IEEE), 2017

[8] Zhu Chunbao and Tha Nu, "An Intelligent, Interactive & Efficient Exam Scheduling System", Institute of Electrical and Electronics Engineers (IEEE), 2015

[9] Ganesh Rathod, Sujeet Survase, Swapnil Kharat , Swapnali Kate, Mr.Jitendra Chavan., "Android Application for Attendance System using QR Code and Speech synthesis Institute of Electrical and Electronics Engineers (IEEE), 2018

[10] Saritha M, Pranav Kiran Vaze, Pradeep, Mahesh N R, "Automatic Time Table Generator", Institute of Electrical and Electronics Engineers (IEEE), 2017

[11] Jegatha Deborah L, Karthika R, Vijayakumar P, Bharat S. Rawal, Yong Wang, "Secure Online Examination System for e-learning", Institute of Electrical and Electronics Engineers (IEEE), 2019