

Computerized Students Attendance System Using Security Codes Generation in the Nigerian Institutions

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ABSTRACT:

For many years, students' class attendances, in the Nigerian institutions, are taken manually. This requires the students to sign in the attendance sheet while lectures are being held. As such, the process approximately takes over forty minutes out of every lesson time. The students' class attendance sheets are shared in the lecture room for each student to locate the one in which their names appear so that they can sign up against their names. This is quite stressful for the students. This research work is intended to be carried out purposely to avoid the entire manual system of students' class attendances in Nigerian institutions. In this research work, the students would be able to sign the attendance sheet on their mobile phones or computers using the security codes generated for them by their course lecturer(s).

KEYWORDS: Computerized Students' Attendance System Using Security Codes Generation, Identity Codes Attendance System, Codes Generation Attendance System, Security codes Attendance.

to students to write their names and sign. Some students may mistakenly or intentionally sign another student's name. The lecturers may not only find it difficult to compute the percentage of each student per course but also may likely lose the attendance sheets at the end of the lecture. This manual method besides being bothersome for the lecturers will also affect the students as worth time is consumed on signing, checking, verifying, and submitting the attendance sheets manually. Also, some students may likely miss out on their names on the attendance sheet.

An effort to provide the solution to the above obstacles brought about the motivation to research on the computerization of the students' class attendance system in Nigerian institutions that requires no real hardware device and that helps the students to sign in the attendance sheet and helps the lecturers to record the students' class attendances easily, accurately, securely quickly, and automatically on mobile phones or computers using the security codes suggested to be developed and used.

I. INTRODUCTION

The attendance procedure in Nigerian institutions is often a tiresome one. Endless queues and filling in several papers in quadruplicate while trying to sign in the class attendance sheets by the students might have been adequate several years ago. However, at present, the number increases rapidly. This leads to along traffic and a lot of precious time is wasted while trying to follow the procedure of signing class attendance.

Virtually, every lecturer within the various departments in the Nigerian institutions still uses the old technique for recording the students' class attendances by passing the class attendance sheets

II. RELATED WORKS

In this research work I reviewed some of the existing automatic students' attendance systems in the world which are being developed by using different techniques; such as the fingerprint-based attendance system, Bluetooth based attendance system, university student attendance management system, and others) but none of them had been able to come out with a system that records students' using the security code generation method by the lecturers. Based on this review, a new approach for the student's attendance recording using security codes generation method is proposed to be used to eliminate our traditional method of recording the

class attendances during lectures, because it requires a little amount of money to be implemented in our universities as compared with other existing automatic techniques which are very costly to be implemented in the Nigerian institutions.

III. DISADVANTAGES OF THE PRESENT WORKING SYSTEM

- The existing system is not user-friendly as the retrieval of data is very slow and data is not maintained efficiently.
- It is time-consuming.
- It is not reliable.
- It is very stressful.
- It is not confidential.

IV. PROPOSED SYSTEM

This proposed system is concerned with the process of taking the students' attendances during the lecture periods, to solve the manual entry of the attendances. In this research work the system has three modules; the admin, the lecturer, and the student.

In the student module, the student must first register his name into the system. The attendance will be taken by giving each student identity codes, the codes must contain codes for a particular course and the attendance codes for that particular lecture which changes for every lecture. The students only need to know the attendance security codes provided by the course lecturer for that week's course attendance and their attendance will be taken immediately. The students can also see the percentage of their course attendance automatically to know whether they will be allowed to sit for that course examination.

The lecturer is responsible for uploading the attendance sheet for each course lecture and generating the security codes which serve as the identification codes for each student. The lecturer also would be able to see every student or the attendance lists of all the students for each week's course attendances.

The admin will access the profile of each lecturer; the admin registers the lecturer, deletes the lecturer, and views the lecturer. The admin also registers the courses to be taken in the department, deletes a course, views a course and allocates a course to the lecturer.

V. AIM AND OBJECTIVES

This proposed computerized students' attendance system using security codes generation method is aimed at implementing and designing a fully automated system that aids the lecturers in the

Nigerian institutions that still use the manual method of recording the students' attendances, record the number of students' attendances on computers or mobile phones using the security code generation method.

VI. CONTRIBUTIONS OF THE RESEARCH

- It is cost effective because it requires no any additional hardware device.
- The student's attendances will be taken easily and efficiently.
- It reduces the valuable time lost through the manual signing of the students' attendances.
- It is paperless.
- The attendance information that is taken is accurate and it requires no error.
- It avoids the manual process of calculating the attendance sheets to record student's class percentage.
- The probability of a course lecturer losing his attendance sheet or forgetting to come along with it to class will be cleared.

VII. RECOMMENDATIONS

To ensure the efficiency and effectiveness of the new system, the following are recommended:

- All rules for installing the system must be followed to avoid errors in system operation. This involves the installation of the system by an ICT expert.
- Since the software is a computerized system, the computer hardware should be reliable, the organization should buy a good computer hardware that will be efficient.
- The hardware should be maintain, a good environment should be provided, one that is cool and airy. Proper anti virus should be installed on the computer system to protect the system from virus, worms, malwares, and spywares.
- The users should use a complex password to protect unauthorized access.
- Important information should be printed out for documentation when needed.

VIII. CONCLUSION

The computerized students' attendance system using the security code generation reduces the precious time wasted by the students to find and sign their names in the attendance sheet. The manual calculation of the student's attendance being done by the lecturer is also automated.

The fully automated technology is highly accurate, easy, and reliable to be used. It generates attendance reports at any time and allows lecturers to know if the student is eligible to attend the exam or not.

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