**QR Code Based Attendance System**

**ABSTRACT:**

In higher education institutions, student participation in the classroom is directly related to their academic performance. However, the majority of student attendance registration is still conventionally done, which is tedious and time-consuming, especially for those courses that involve large numbers of students. Over the years, attendance management has been conducted manually at most of the universities. To overcome the manual attendance issues, we proposed and implemented a smart attendance system with the aim to encourage the potential use of the Quick Response (QR) code as a future attendance management system, to track and record student attendance in lectures and exercises for all relevant courses, as an aim of this paper.

**EXISTING SYSTEM:**

There are quite a number of previous researches in the field of computer science developed students attendance tracking system to improve record taking in class using different technologies. For example, RFID or near field communication (NFC) technology An example of application that Jainetal has developed is a desktop application in which a list of all registered students in a particular course is displayed when the class commences. Attendance is registered by clicking off a checkbox next to student’s name that are present, and then for marking their presence a register button is clicked.

**DISADVANTAGES:**

Struggles With Real-Life Data.

**PROPOSED SYSTEM :**

The proposed system by authors on aims to record all student participation based on the generated unique QR code of each course for each class day. The instructors, in turn, copy this QR code and paste it on the first slide to be displayed in the lecture. If the instructor policy is to allow late students in his class and would like to mark them as present or late, then the QR code should also be copied on one of the four corners of as many slides as the instructor wishes. When the students are in class, the first thing that should be done is to pull out their smart phones, open the Mobile Module, and scan the QR code, then the Server Module runs an identity check on the registered students. These days it is required to keep up with the latest technologies, especially in the field of education. Educational institutions have been looking for ways to enhance the educational process using the latest technologies. Seeing as everything moves towards digitalization, we think that this system is pretty much necessary for the University. In this paper, we have described a proposed system that incorporates QR codes and devices connected to internet in taking student attendance. This study shows that the QR code, a multi-faceted and popular feature of smart devices, can be used as an efficient method of recording attendance, replacing the old, traditional way of calling name lists in class The proposed system provides better security than the traditional methods, including eliminating chances of students signing up for others who may not be present. Even though similar platforms are already developed, we believe that the proposed platform will be more attractive for several reasons: It has a great advantage, among all types of code scanning technology; the QR Code attendance system is the most accurate and efficient method of maintaining attendance in a database and controlling it from any intelligent device rather than wasting paper.

**ADVANTAGES:**

* The acceptance of QR code by students and educators is critical to the successful implementation of this technology.
* Cost Effectiveness.
* fast and affordable in comparison to the other methods.

**SYSTEM REQUIREMENTS**

**HARDWARE REQUIREMENTS**:

Processor - intel i3 or i4

Speed - 1.1 GHz

RAM - 4 GB (min)

Hard Disk - 500 GB(min)

Key Board - Standard Windows Keyboard

Mouse - Two or Three Button Mouse

Monitor - SVGA

**SOFTWARE REQUIREMENTS:**

Operating System - Windows 10

Programming Language - Python