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(57) Abstract :

The management of the attendance can be a great burden on the teachers if it is done manually. It is a demanding task in any organization. In traditional attendance system, the students are called out by the teachers and their presence or absence is marked accordingly. This is time consuming and tedious. To resolve this problem, smart and auto attendance management system is being utilized. But authentication is an important issue in this system. The smart attendance system is generally executed with the help of biometrics. Many organizations use fingerprint and card-based attendance systems. In the pandemic situations, using contact based biometric verification for attendance marking systems is unsafe and risk too. This is the right time to switch towards a face-based attendance system to avoid direct contact. As face recognition is one of the biometric methods, we won't come across authentication issues. So, we designed and developed a smart attendances system using ESP-32. ESP-32 camera is used to authenticate a person and RFID cards are used for individuals for two-way security. First, we need to enroll all the information like RFID id, name, etc., facing the ESP32 camera. When student come in front of ESP32 camera, it automatically detects the face and display the message to scan the RFID card, when the card and face is matched the attendances is recorded. The staffs or any authorized person can assess these data at any time. If unauthorized person is in front of ESP32 camera or with the invalid RFID id the attendances is not recorded. Hence the problem of proxies can be easily resolved.

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