**AUTOMATED STUDENT ATTENDANCE MONITORING SYSTEM USING MULTIPLE FACE DETECTION AND RECOGNITION-AI**

**ABSTRACT:**

Tremendous research has been done on Facial Recognition by using various techniques and algorithms. In the human body, face is considered to be an outstanding part, that identifies any individual person. Face recognition system can be built by making use of facial features and techniques. Taking or marking attendance is an important task in any institution. In educational institutions like college or schools, the teachers used to call out student’s name and used to mark their presence or absence in an attendance register. However, these classical techniques of marking attendance are considered to be time taking and aggravating. A good system which makes use of artificial intelligence can address this module. Personal identification is examined as an important aspect in recognizing the identity of any particular person. A person’s identity can be validated through the traditional or biometric methods. The application of biometric recognition in personal authentication enables the growth of this technology to be employed in various domains. The implementation of biometric recognition systems can be based on physical or behavioral characteristics, such as the iris, voice, fingerprint, and face. Currently, the attendance tracking system based on biometric recognition for education sectors is still underutilized, thus providing a good opportunity to carry out interesting research in this area. Yet, these types of methods are proved to be time consuming and tedious, and sometimes, fraud occurs. In the human body, face is considered to be the distinctive part that identifies a person. Face recognition system can be built by making use of facial features and techniques could. Taking or marking attendance is an important task in any organization. In educational institutions like college or schools, the teachers used to call out student’s name and used to mark their presence or absence in an attendance register. However, these traditional techniques of marking attendance are considered to be time taking and annoying. A better system which makes use of artificial intelligence can address this. The programmed model makes use of a camera which supposed to take a photo as an input file, an algorithm for identification of face, then encoding and detecting the face captured in the image, marking the attendance in a excel sheet. Then the outcome images are stored in the database against an identifier. The features of the face can be extracted using Local Binary Pattern Histogram algorithm. The parameters radius, neighbors, grids, gridy are considered. The algorithm trains the images and performs Local Binary Pattern operation and concluded with recognition of face. Student details are registered and stored in database as in the form of feature values for security reasons and purposes. At the time of attendance tracking, admin verifies the student with unique Face biometrics. Face recognition can be done with the help of deep learning algorithm. It can be useful to avoid fake attendance and improve automated system in real time college environments. Experimental results shows that the real time interface with student details and will implement software framework.