ABSTRACT

Conventional attendance systems sometimes require a lot of time, are prone to mistakes, and don't provide real-time data. This study suggests using face recognition technology with the RetinaFace algorithm to create an enhanced attendance system. RetinaFace is a good choice for accurate attendance tracking since it performs exceptionally well in a variety of settings. The system uses cameras to take pictures of people's faces, RetinaFace to recognize and identify people, and an automated attendance recorder to enter their information into a computerized database. This paper describes the architecture, deployment, and assessment of the system with an emphasis on how well it improves data insights, efficiency, and accuracy of attendance.

The system's solid performance was demonstrated through experimental testing, where it attained a high identification rate of 91%. The suggested approach gets rid of human mistakes and drastically cuts down on administrative time as compared to conventional ways. By providing a unique method that makes use of cutting-edge facial recognition technology, this research advances the field of attendance management. The system offers notable advantages over current approaches in terms of accuracy, efficiency, and data-driven capabilities, opening the door for more trustworthy and perceptive attendance tracking in businesses, educational institutions, and other contexts.

Keywords *— RetinaFace, Facial Recognition, Attendance Monitoring, Accuracy..*

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