

From Manual to Automated: Transforming Attendance Systems with Face Recognition Technology

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Abstract: *In this paper, the development of attendance systems from conventional options to technology-based solutions involving face recognition is reviewed. On manual level, the above case will obviously be very much inefficient and a lot of inaccuracies going to associate with the Data Entry for Attendance which makes it more obvious about its Transformation from Paper-Based Manage Manual System to Evolving with Online Platform, A paper-free, extremely streamlined form & consolidated authenticity. Face recognition technology significantly reduces the possibility of fraud and errors by 1) identifying people accurately using an advanced image processing, machine learning algorithms, thus stopping false or multiple claimers etc. The results of the study present a model-based comparison and explore how face recognition can be implemented into attendance systems, discussing operational benefits to organizations as well as usability improvements for the end user. It also raised concerns about privacy and securing the data robustness. The paper uses detailed analysis and case studies to show that face recognition technology has the ability to change attendance management be it educational sector or corporate, ushering in a host of new applications in identity verification and security.*

Keywords: Face recognition, Image processing, OpenCV, CNN