

## Multimodal Employee Attendance Management System

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**Abstract :** This paper presents novel face recognition and identification approaches for the real-time attendance management problem in large companies/factories and government institutions. The proposed uses the Minimum Ratio (MR) approach for employee identification. Capturing the authentic face variability from a sequence of video frames has been considered for the recognition of faces and resulted in system robustness against the variability of facial features. Experimental results indicated an improvement in the performance of the proposed system compared to the Previous approaches at a rate between 2% to 5%. In addition, it decreased the time two times if compared with the Previous techniques, such as Extreme Learning Machine (ELM) & Multi-Scale Structural Similarity index (MS-SSIM). Finally, it achieved an accuracy of 99%.

**Keywords :** attendance management system, face detection and recognition, live face recognition, minimum ratio

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