

An Intelligent Automated Attendance System using RetinaFace and ArcFace

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Abstract: *The shortcomings of existing facial recognition systems leads to the numerous operational challenges that afflict conventional attendance tracking systems in educational establishments. These methods create a backlog of students during peak times, disrupting class time and increasing the workload for administrative staff due to complex verification procedures. These ongoing issues emphasize the deficiencies of the existing frameworks and the need for more robust attendance monitoring systems.*

Consequently, technological innovation is essential to enhance accuracy, reliability, and administrative efficiency in attendance management systems.

AttendAI addresses these issues with a specially designed mobile device that combines artificial intelligence and edge computing. Its unique design goes beyond conventional limitations and ensures safe, dependable operation through a proprietary structure, allowing this small hardware solution to revolutionize attendance verification with advanced recognition algorithms. Experiments demonstrate that AttendAI works better than traditional systems, surpassing them in accuracy and efficiency.

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